



**AUDIT DESIGN: A SEMI-AUTOMATED METHOD TO SCRUTINIZE
COMMUNITY INVOLVEMENT IN HERITAGE MANAGEMENT
PLANS**

A THESIS SUBMITTED TO
WELSH SCHOOL OF ARCHITECTURE/ YSGOL PENSAERNĪAETH CYMRU
CARDIFF UNIVERSITY/ PRIFYSGOL CAERDYDD

BY
GIZEM PARLAK

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF DOCTOR OF PHILOSOPHY
IN
ARCHITECTURE

JUNE 2021

Audit Design: a semi-automated method to scrutinize community involvement in
heritage management plans

Parlak, Gizem

Ph.D., Welsh School of Architecture

Supervisors: Dr. Clarice Bleil De Souza, Dr. Federico Cerutti

June 2021, 149 pages

Babama
To my father

ABSTRACT

United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Committee provides a specific set of guidelines for managing cultural world heritage (UNESCO 2013a) in which community involvement is considered as an essential part of it. Interaction with local communities inhabiting in the World Heritage Sites results in knowledge exchange in their management processes. In traditional (top-down) decision making processes, the direction of knowledge transfer is normally from professionals to lay people and defined as informative. In contemporary participatory decision-making processes, knowledge transfer is multi-directional and reciprocal. Public participation is discussed widely in the literature in terms of its means and degrees focusing on the interactions between the public and the professionals or authorities using scales for the quantity and the content of these interactions. However, the literature is deprived of discussions on the information transfer from these interactions to the decision-making processes. Rather than examining methods for community participation or discussing degrees of participation, this research approaches cultural heritage management from a rather unconventional way, questioning the levels of local knowledge transfer into actions and interventions in the context of World Heritage Sites management plans. Therefore, its aim is to propose a transferable method for gauging knowledge transfer from communities to site management plans in participatory heritage management processes of WHS. To do so, it analyses two types of data: (i) community meeting reports, and (ii) site management plans; and examines how much the former informs the latter through a mixed methods approach, starting with a full qualitative analysis and finishing with a semi-automated method called ‘Audit Design’.

The method is developed and deployed to two case studies in Turkey, which had changes in its legislative approach to community participation in world heritage management from 2005. The Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS (case study 1) is used to develop and validate a semi-automated method which is subsequently deployed and tested in Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS (case study 2) to assess its potential and transferability to different contexts. This semi-automated method is born out of a variety of techniques including qualitative social research, Natural Language Processing (NLP) and knowledge representation methods. The Framework Method is used to

summarise and display the data in thematic matrices so an analytic framework can be developed. These matrices are created automatically using information extraction techniques from NLP. Finally, to make inferences about the levels of knowledge transfer from community meetings to the site management plan, a rule-based method from the knowledge representation domain, comprising an inference mechanism with if-then rules is employed to extract and gauge knowledge transfer from community focus group meetings into site management plan actions.

Results from both case studies showed that Audit Design has great potential to scrutinise community involvement in the development of management plans for World Heritage Sites as it can quickly assess and gauge knowledge transfer with some nuances expressed in terms of percentages of transferability. These nuances can be used to establish benchmarks for comparisons as well as benchmarks of acceptance either in Turkey and/or UNESCO to better ensure the involvement of communities in the development of values and the management of WHS.

Keywords: heritage management, community involvement, citizen professional, knowledge transfer, knowledge engineering

ACKNOWLEDGEMENTS

Most of all, I would like to express my sincerest gratitude to my main supervisor Clarice Bleil de Souza, who has always become a model for me with her professional stand. Throughout these 4 years, she guided me in academia, supported me continuously, inspired me with her enthusiasm in research, and just been there for stressful times. I believe that the completion of this research would not be possible without her guidance and support.

Secondly, I offer special thanks to my second supervisor Federico Cerutti, for his valuable input and feedbacks. I have been grateful for his belief in my research, his guidance and patience while I was trying to adapt myself into an entirely new research field.

I would also like to extend my thanks to Helene de Ribaupierre for her unconditional support and endless patience while guiding me in learning the software programs.

Furthermore, I am grateful to my examiners respectively from the first to the third year, Aseem Inam, Chris Whitman, and Magda Sibley for their noteworthy contributions in the development of this research. Special thanks to Magda Sibley for introducing me to Tulin Vural Arslan who provided the data for Bursa case study. I would like to thank for her assistance and kindness during the data collection stage. I would like to thank also Serdar Nizamoglu and his colleagues from Ikarya Consulting, who helped me to obtain the data for Diyarbakir case study. I am grateful to Ayse Ege Yildirim and Evrim Uluhan who help me to understand Turkish Site Management System. Furthermore, I am grateful to Chamber of Urban Planners Ankara Branch for providing the opportunity to participate the training on site management practices in Turkey

Utmost thanks go to my colleagues in WSA who spent these three years with me sharing many memories and having both social and academic discussions in the PGR Base. I would like to specially thank to Camilla Pezzica and Yagmur Burcu Gunes, who are not just colleagues but close friends to me. Camilla's curious spirit always inspired me to dive in new research areas, and our discussions with Yagmur always provided me new perspectives.

A special mention goes to Alice Schirone, my former housemate, who became my best friend. I am grateful to her for being there for me in the most difficult times. Her friendship gave me the psychological strength to confront the hardships of a PhD research.

Above all, I would like to present my endless gratitude and thanks to my family, my father Faysal Aydin for his continuous support and encouragement, my mother Ayse Aydin for her unrequited love and kindness, my sister Damla Aydin for her constant cheering energy, and my brother Tural Tolga Aydin for his unquestioned companion.

Finally, and most importantly, my dearest appreciation goes to my husband Murat Parlak for his patience and assistance over this period. He provided me logistic support, technical help, and a healthy routine. This thesis would not have been completed without his endless love and support. Thank you, love!

Contents

Contents	i
List of Figures.....	v
List of Tables	viii
List of Appendices.....	x
Chapter 1. Introduction.....	1
1.1. Research relevance and significance	1
1.2. The research aims and objectives	3
1.3. Thesis Structure	4
Chapter 2. Problem Context and Definition	5
2.1. World Heritage Site Management	5
2.1.1. Community involvement in World Heritage Sites	6
2.1.2. World Heritage Site Management Plans in Turkey	8
2.2. The Site Management Regulation in Turkey	10
2.2.1. Site Management Units.....	10
2.2.1.1. Site Manager.....	10
2.2.1.2. Advisory Board.....	11
2.2.1.3. Coordination and Audit Board	11
2.2.1.4. Audit Unit	11
2.2.2. The Principles of Site Management	12
2.2.2.1. First phase: delineation of management site boundaries.....	13
2.2.2.2. Second phase: management plan preparation	13
2.2.2.3. Third phase: evaluation and approval	15
2.3. Community involvement and the significance of site managers	16
Chapter 3. Literature Review	18
3.1. Participation in urban planning.....	19
3.1.1. Theoretical studies	19
3.1.2. Empirical studies.....	20
3.2. Participation for decision-making	20

3.3. The Citizen Professional idea to improve knowledge transfer	22
3.4. Considering Site Managers as Citizen Professionals in the context of Turkey	25
Chapter 4. Research Design	27
Chapter 5. Case Study Description	32
5.1. The World Heritage Site and its Components	33
5.1.1. Amida Mound	35
5.1.2. City Walls	36
5.1.3. Hevsel Gardens	38
5.1.4. Ten-Eyed Bridge	39
5.1.5. Tigris Valley and natural resources	40
5.2. Outstanding Universal Value of the WHS	40
5.3. Site Management Plan Preparation Process	41
5.4. Site Management Plan	46
5.4.1. Vision and Analysis of the site management plan area	47
5.4.2. Itinerary, Timeline and Project Design	52
5.4.3. Implementation, monitoring, and assessment	56
Chapter 6. The Qualitative Audit Method	57
6.1. Data sources	57
6.2. The method	58
6.3. Procedure for Gauging Knowledge Transfer	64
6.4. Example of method deployment	66
6.5. Results	69
6.5.1. Results for Diyarbakir Fortress and Surici Area	69
6.5.2. Results for Hevsel Gardens and Tigris Valley	71
6.5.3. Results for Heritage Site	73
6.6. Discussion	74
6.7. Conclusion	77
Chapter 7. The Semi-Automated Method: Audit Design	78
7.1. Analytical Framework	81
7.2. Natural Language Processing	82

7.3. Connections and Matrix.....	89
7.4. Knowledge Representation Method	92
7.4.1. Surrogates	92
7.4.2. Ontological Commitments.....	93
7.4.3. The theory of intelligent reasoning.....	95
7.5. Inferences.....	97
7.5.1. Assessment Criteria and Forms of management plan actions.....	97
7.5.2. Budget information.....	98
7.5.3. Comparison of actors	98
7.5.4. Content of connections	99
7.5.5. The level of knowledge transfer	102
7.5.6. Natural Language Representations.....	106
7.6. Validation.....	106
7.7. Conclusion	109
Chapter 8. Audit Design Deployment	110
8.1. Deployment method overview.....	110
8.2. Familiarisation with the data and WHS.....	111
8.2.1. Site Description: Components	111
8.2.1.1. Khans Area – Orhan Ghazi Complex and tombs of Orhan Ghazi and Osman Ghazi	112
8.2.1.2. Hüdavendigâr (Murad I) Complex and Old Turkish Bath	115
8.2.1.3. Yıldırım (Bayezid I) Complex.....	116
8.2.1.4. Yeşil (Mehmed I) Complex.....	117
8.2.1.5. Muradiye (Murad II) Complex	119
8.2.1.6. Cumalıkızık Village.....	120
8.2.2. Outstanding Universal Value of the WHS	122
8.2.3. Site Management Plan Preparation Process	122
8.2.4. Site Management Plan	125
8.2.4.1. Vision and Analysis of the site management plan area.....	125
8.2.4.2. Itinerary, Timeline and Project Design	125
8.2.4.3. Implementation, monitoring and assessment	127

8.3. Developing the analytical framework	127
8.3.1. Data sources	127
8.3.2. Coding and associating	127
8.4. Extracting types and categories using IE tools.....	127
8.5. Creation of knowledge base: Connections Matrix	128
8.6. Applying rule-based system	128
8.6.1. Knowledge transfer concepts.....	129
8.6.2. Actor comparisons	129
8.6.3. Inferences based on types and categories.....	129
8.7. Rendering inferences	130
8.7.1. Overall Results.....	130
8.7.2. Results based on the issues raised by the community.....	132
8.8. Conclusion	133
Chapter 9. Conclusion	135
9.1. The achieved results.....	135
9.2. Contributions of the study	137
9.3. Further Studies	140
Bibliography	141
Appendices.....	149

List of Figures

Figure 1: ICOMOS Assessment of SDG 11, Target 11.4	2
Figure 2: World Heritage Sites in Turkey	9
Figure 3: Site Management Process	12
Figure 4: Designation process of management site boundaries	13
Figure 5: The content of the management plan as stated in the regulation.....	15
Figure 6: Third stage of site management as defined in the regulation	15
Figure 7: Overarching framework of research design.....	29
Figure 8: Data Analysis Process.....	30
Figure 9: Aerial view of Diyarbakir Fortress, Surici Area and Hevsel Gardens	32
Figure 10: Location of the Site.....	33
Figure 11: World Heritage Site and its buffer zones.....	34
Figure 12: Aerial view of the Inner Castle from the north.....	35
Figure 13: The Courthouse and The Arch.....	35
Figure 14: The Prison.....	35
Figure 15: Prophet Suleiman Nasiriye Mosque.....	36
Figure 16: Saint George Church.....	36
Figure 17: Inner Castle Map	36
Figure 18: Gates of Diyarbakir Fortress and Inner Castle.....	37
Figure 19: Section and Elevation of the City Walls.....	37
Figure 20: Floor plans and sections of a circular bastion.....	38
Figure 21: Aerial view of the city walls and Surici Area.....	39
Figure 22: Hevsel Gardens from City Walls	39
Figure 23: Plan and view of Ten-Eyed Bridge.....	40
Figure 24: Timeline of the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape Site Management	42
Figure 25: The Nominated Property Parts of the WHS.....	48
Figure 26: Buffer Zones of the WHS	49
Figure 27: Feritkosk Area.....	50
Figure 28: Kirkklar Mountain Development Area Master Plan and Before/After pictures	51
Figure 29: Mansions Area – Erdebil Mansion	51
Figure 30: Ben U Sen.....	52
Figure 31: Structure of the site management plan.....	53
Figure 32: Illustrative project table from the management plan	54
Figure 33: Project Sheet Example: Planning Theme 2 – Strategy 1.3 – Action 2/3/4.....	55
Figure 34: Methodology Diagram: The Qualitative Audit Method	59
Figure 35: Excel spreadsheet with log of coded data	62
Figure 36: The structure of the assessment method	65

Figure 37: Methodology Framework.....	78
Figure 38: Audit Design Method.....	80
Figure 39: Information Extraction process in GATE.....	83
Figure 40: Illustrative JAPE rules for issue assertion types.....	83
Figure 41: ANNIE application in GATE.....	84
Figure 42: Annotation sets highlighted on text document.....	84
Figure 43: Possible connections between issue assertions and management plan actions.....	89
Figure 44: Concept Knowledge Transfer: management plan actions.....	93
Figure 45: Describing the concept knowledge transfer: issue assertions.....	94
Figure 46: Describing the concept management plan actions.....	95
Figure 47: Knowledge Base logged on Excel spreadsheet.....	95
Figure 48: Rule-based system premises.....	96
Figure 49: Rule for the inference engine (IA = Issue Assertion, MPA = Management Plan Action).....	96
Figure 50: Excel Spreadsheet sample for actor comparison step.....	98
Figure 51: Excel Spreadsheet sample showing actor data.....	99
Figure 52: Canopy clustering with WEKA.....	102
Figure 53: WEKA Classifier Tree View Validating Classification of Knowledge Transfer Level.....	103
Figure 54: WEKA classifier validating Classification of Knowledge Transfer Level.....	104
Figure 55: Aerial view of Bursa Khans Area.....	110
Figure 56: Location of the Site.....	111
Figure 57: Nominated properties and buffer zones.....	112
Figure 58: Khans Area development under the reigns of Ottoman Empire Sultans.....	113
Figure 59: Orhan Ghazi Mosque.....	113
Figure 60: Orhan Ghazi Mosque.....	113
Figure 61: Emir Khan.....	114
Figure 62: Kapan Khan.....	114
Figure 63: Ulu Mosque.....	114
Figure 64: Bedesten (Market Hall).....	114
Figure 65: Ulu Mosque.....	114
Figure 66: Koza Khan.....	114
Figure 67: Ipek Khan.....	115
Figure 68: Ipek Khan.....	115
Figure 69: Hüdavendigâr (Murad I) Complex and Old Turkish Bath.....	115
Figure 70: Hüdavendigâr Mosque.....	116
Figure 71: Hüdavendigâr Mosque.....	116
Figure 72: Hüdavendigâr Imaret.....	116
Figure 73: Old Turkish Bath.....	116
Figure 74: Yıldırım Complex.....	116

Figure 75: Yıldırım Madrasah and hospital.....	116
Figure 76: Yıldırım (Bayezid I) Complex	117
Figure 77: Yeşil (Mehmed I) Complex	118
Figure 78: Yesil Complex.....	118
Figure 79: Iznik glazed tiles of Yesil Mosque.....	118
Figure 80: Yesil Imaret (public kitchen)	118
Figure 81: Yesil Madrasah.....	118
Figure 82: Muradiye (Murad II) Complex	119
Figure 83: Muradiye Complex.....	120
Figure 84: Hazire (royalty tombs)	120
Figure 85: Muradiye Madrasah	120
Figure 86: Muradiye Madrasah inner courtyard.....	120
Figure 87: Villagers selling local products.....	120
Figure 88: Aerial view of the village.....	120
Figure 89: Cumalıkızık Village	121
Figure 90: Timeline of the Bursa and Cumalıkızık: The Birth of the Ottoman Empire Site Management.	123
Figure 91: Structure of the site management plan.....	126
Figure 92: Illustrative action table from the management plan for different locations	126
Figure 93: Concept Knowledge transfer: management plan actions	129
Figure 94: Concept Knowledge transfer: issue assertions.....	129
Figure 95: Adaptation of citizen professional idea.....	137
Figure 96: Development of Audit Design method	138

List of Tables

Table 1: Competent authority for management of heritage sites based on the site type	14
Table 2: Community Involvement in Historical Urban WHS in Turkey (Periodic Reports of ICOMOS)...	16
Table 3: Definitions of Citizen Professional Role in different domains	23
Table 4: Roles similar to citizen professional defined in urbanism domain	24
Table 5: Customization of Citizen Professional in Urbanism and Heritage Management	25
Table 6: Case Study Selection based on the attributes of the WHS in Turkey	27
Table 7: Participation levels in selected World Heritage Sites for the research	28
Table 8: Focus groups and their area of interest.....	43
Table 9: Community Focus Groups and Participants Matrix.....	44
Table 10: Exemplary project table of a management plan as shown in the Regulations.....	47
Table 11: Planning themes of the site management plan	53
Table 12: Extracted Issue Codes about three geographical locations	61
Table 13: Complete set of identified themes with issue codes	63
Table 14: Families of issues categorised by geographical locations.....	64
Table 15: Exemplary table for introduction to the issue: Issue Code 17. Irrigation Systems.....	66
Table 16: Exemplary table for the assessment of actors and budget: Issue Code 17. Irrigation Systems.....	66
Table 17: Exemplary table of comparison of issues, actions, outputs: Issue Code 17. Irrigation Systems ..	67
Table 18: Exemplary table of gauging knowledge transfer: Issue Code 17. Irrigation Systems.....	68
Table 19: Summary of assessment for all issue codes in Issue Family 1: Surici Urban Area.....	69
Table 20: Summary of assessment for all issue codes in Issue Family 2: Social and Economic Problems..	70
Table 21: Summary of assessment for all issue codes in Issue Family 4: Public Use.....	72
Table 22: Summary of assessment for all issue codes in Issue Family 5: Agriculture.....	72
Table 23: Summary of assessment for all issue codes in Issue Family 6: Management	73
Table 24: Summary of assessment for all issue codes in Issue Family 7: Spatial Planning.....	73
Table 25: Knowledge transfer from focus group meetings to the management plan	74
Table 26: Detailed assessment of the community knowledge transfer	75
Table 27: Category indicators for issue assertions and management plan actions	85
Table 28: Type indicators for issue assertions	85
Table 29: Type indicators for management plan actions	86
Table 30: Comparison of Manual and GATE annotation for issue assertion types.....	86
Table 31: Incorrect annotations of GATE on Types of Issue Assertions	87
Table 32: Comparison of Manual and GATE annotation for management plan action types.....	87
Table 33: Incorrect annotations of GATE on Types of Management Plan Actions	88
Table 34: The matrix of connections	90
Table 35: Inferences based on connections of action and assertion types	97
Table 36: Inference rules for management plan actions.....	98
Table 37: Natural Language Representations based on type and category connections	100

Table 38: The levels of knowledge transfer defined for the rule-based system	104
Table 39: Comparing results for qualitative assessment and rule-based system	107
Table 40: Detailed comparison of qualitative assessment and rule-based system.....	107
Table 41: Participants of Survey Meetings.....	124
Table 42: Numbers of participants of both survey meetings.....	124
Table 43: Planning themes for the site management plan.....	125
Table 44: Extraction of Types and Categories of Management Plan Actions	128
Table 45: Extraction of Types and Categories of Issue Assertions.....	128
Table 46: Inference Engine Results for Bursa and Cumalıkızık WHS.....	130
Table 47: Content Inferences and their count.....	131
Table 48: Natural Language Representation of inferences and their count.....	131
Table 49: Distribution of the levels of knowledge transfer based on the categories of issue assertions.....	132
Table 50: Results of the Level of Knowledge Transfer Assessment via Audit Design.....	137

List of Appendices

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

Appendix II: Abbreviations

Appendix III: Qualitative Assessment Report

Appendix IV: How to use GATE: User Guide for Audit Design

Appendix V: Actor Comparison Microsoft Excel Macro Script

Appendix VI: Association matrix for Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS

Appendix VII: Bursa and Cumalıkızık: Audit Design Knowledge Transfer Assessment Results

Chapter 1. Introduction

"Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits." (Universal Declaration of Human Rights, Article 27)

"Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers." (Universal Declaration of Human Rights, Article 19)

1.1. Research relevance and significance

Community involvement has gained more importance in 1990s with the increasing interest in sustainability worldwide (Davoudi 2003). The International Association of Public Participation (IAP2) was founded to upgrade the practice of public participation in 1990 with a public participation spectrum comprising five levels from informing to empowering. The United Nations launched the Local Agenda 21 (LA21) at the Conference on Environment and Development in 1992, a document which aimed to widen public participation introducing the concept of "capacity building" to local governments (UNCED, 1992). In 1998, the United Nations Economic Commission for Europe (UNECE) signed the Aarhus Convention with 46 states from Europe and Central Asia, focusing on access to information, public participation in decision-making and access to justice (Aarhus Convention 1998). In Europe, the Organization for Economic Cooperation and Development (OECD, 2001) published the handbook on Information, Consultation and Public Participation in Policymaking in 2001 to strength the relationships between citizens and governments. All these documents widen the perspectives of community involvement and acknowledge the necessity of public participation in decision making processes for sustainable development and better futures for cities.

In 2002, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Committee adopted Strategic Objectives from the World Heritage Convention (UNESCO 2002) to UNESCO operational guidelines;

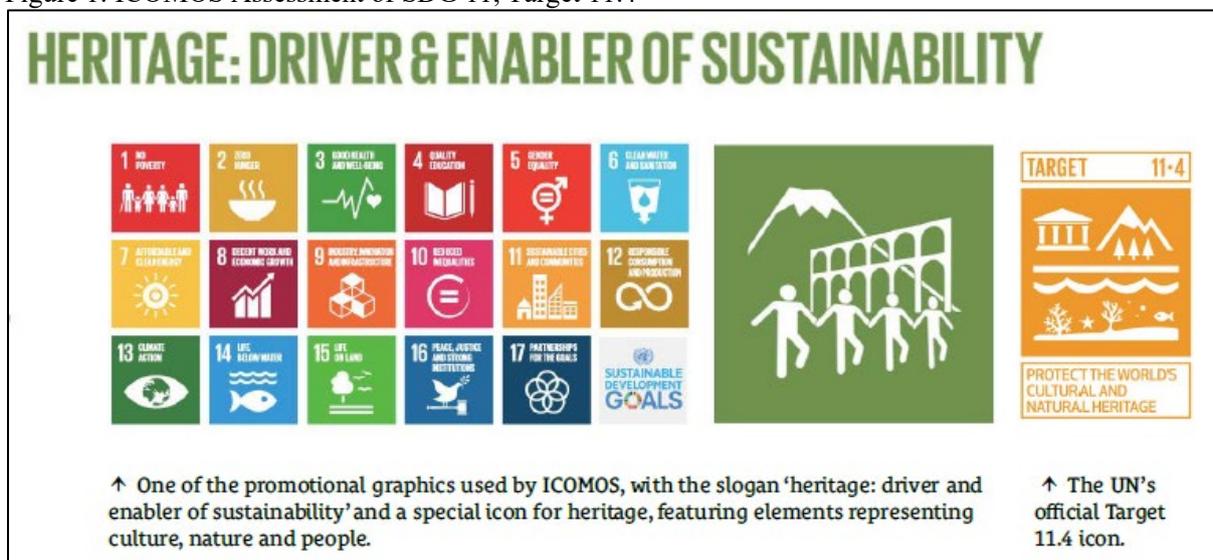
- **Credibility:** Strengthen the Credibility of the World Heritage List.
- **Conservation:** Ensure the effective Conservation of World Heritage properties.
- **Capacity-building:** Promote the development of Capacity-building measures.
- **Communication:** Increase public awareness, involvement and support for World Heritage through Communication.

Following these strategic objectives, UNESCO revised its operational guidelines in 2005, and expressed the importance of public participation by defining local communities as partners in the identification, nomination and protection of World Heritage Sites (UNESCO 2005a, paras 12, 40). Later in 2007, a fifth strategic objective was added to this list of objectives (WHC-07/31.COM/13B Paris, 23 May 2007):

- Communities: Enhance the role of Communities in the implementation of the World Heritage Convention.

Recently, in 2015, the Sustainable Development Goals (SDGs) and targets were set up by the United Nations General Assembly, strengthening even further the role of participation in sustainable development (United Nations General Assembly 2015). For instance, in "Sustainable Cities and Communities" Target 11.3 aims inclusive and sustainable urbanisation whereas Target 11.4 explicitly strives to safeguard world's natural and cultural heritage. ICOMOS (Labadi et al. 2021) refers to heritage as the driver and enabler of sustainability in their assessment of the SDGs (Figure 1) and Jokilehto (2017) accentuates community involvement for sustainable heritage management and conveys the recognition of local communities as key in building constructive dialogues for sustainable heritage management.

Figure 1: ICOMOS Assessment of SDG 11, Target 11.4



Source: (Labadi et al. 2021, p.16)

Cultural heritage management is debated in academia in relation to sustainable development processes (Pereira Roders and van Oers 2011; Pereira Roders and van Oers 2014) since the Historic Urban Landscape (HUL) approach was adopted by UNESCO in 2011 (UNESCO 2011). Ji Li et al. (2020, p.4) adapted the IAP2's participation spectrum for cultural heritage management and defined involvement as working directly with the communities in the entire management process to understand and consider their opinions and desires genuinely. The recent work of Rey-Pérez and Pereira Roders (2020), a review of 80 HUL cities concludes that local participation in urban heritage management is not achieved or incorporated in those case studies and Jokilehto (2017) draws attention to the necessity of more efficient knowledge sharing in conservation to embrace heritage as a driver for sustainable development.

However, these aforementioned frameworks and literature do not make clear who facilitates knowledge sharing and how it can be assessed. UNESCO defines the site managers as the responsible professionals for heritage conservation and management of World Heritage properties (UNESCO World Heritage Centre 2019, p.32). Mackay (2019) claims that there is a shift in the professional practice from expert to facilitator regarding knowledge and roles. Even though site managers are seen as key actors in facilitating community involvement, a clear definition of their role is missing in the literature or in UNESCO guidelines (Ripp and Rodwell 2017). In the Burra Charter (1979) this role is described as to be fulfilled by a qualified and comprehensively skilled practitioner(s) who assesses and prepares the statement of cultural significance for heritage (ICOMOS Australia 1987, paras 1.4, 3.3, 3.4), which can be interpreted as the practitioner having both expertise to undertake the assessment and sufficient knowledge of the site to prepare a cultural significance statement and some countries started to incorporate this idea into their own conservation and heritage legislation.

In the context of Turkey, recent changes in the Conservation legislations (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005) state site management plans as the official documents reflecting community aspirations and concerns and define the key role of site managers as the enablers of this process. Site managers are seen as the agent responsible for coordinating the site management plan preparation process and need to be a professional from one of the relevant domains as well as a person familiar with the site, either by being a local to it or had worked on it previously (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.14). In this context, the role of site managers in participative heritage management processes is similar to the role of the 'citizen professional', adapted from health care domain (Doherty 2013), yet discussed in political science (Boyte and Kari 1996; Boyte 2008a; Hall and Couto 2012), and sociology (Kuhlmann 2006a). This role is assumed to ensure knowledge sharing and transfer between the involved communities and the actions defined in WHS management plans. However, the degree of this transfer is still unknown and remains unassessed. Thus, this research approaches cultural heritage management from a rather unconventional way, questioning the level of local knowledge transfer into interventions or actions in World Heritage Sites management plans rather than reviewing the means and degrees of public participation regarding the quantity and the content of participation events.

1.2. The research aims and objectives

In the context of community involvement in World Heritage Sites (WHS), the aim of this study is to propose a transferable method for gauging knowledge transfer from communities to site management plans in participatory heritage management processes of WHS. To this end, the thesis pursues to achieve the following research objectives:

1. Scrutinize community knowledge transfer from focus group meeting to WHS management plans in the context of Turkey,
2. Develop a semi-automated method to undertake this scrutiny which is able to capture knowledge transfer with its reasonable nuances and at the same time numerically gauge this transfer to enable

an objective assessment to be done, so potential benchmarks can be established at a national (and, in the future, international) level,

3. Validate and test the method in the context of Turkey highlighting its potential and transferability to other contexts.

1.3. Thesis Structure

The research is structured in three parts: (i) Problem definition followed by a literature review on community participation and knowledge transfer – chapters 2 and 3, (ii) Research design and the development of the audit method – chapters 4, 5 and 6, and (iii) Validation and testing of the Audit Design method with a discussion on its transferability and applications to different contexts – chapters 7 and 8.

The work starts with an overview of heritage management in World Heritage Sites, with a specific focus on community involvement and the context of Turkey, to conceptualize problem definition. The first part of chapter 2 provides a brief overview of the literature in community involvement in world heritage sites and discusses the participatory approach on site management plans in the context of Turkey. In the second part of the chapter, the Turkish Site Management Regulation is explained in detail since community involvement was enforced through it and is now part of heritage management processes. Finally, the chapter evaluates the role of the site manager as a key actor on site management processes considering his/her key role in promoting knowledge transfer. In chapter 3, an epistemological cross-disciplinary literature review is presented considering: public participation theories and citizen professional approaches. The chapter concludes merging the idea of the citizen professional with the one of the site manager and discusses possible contributions of this new agent with regards to its advantages in knowledge transfer and decision-making, highlighting the main research questions to be addressed by this thesis.

The second part of this thesis starts by illustrating the rationale behind the case studies' selection and the thesis research design (chapter 4). In chapter 5, the first case study, Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS, is described to illustrate the context for the development of the qualitative assessment method. Subsequently, in chapter 6, the Qualitative Audit Method is explained including its data sources, with its development illustrated using the previously mentioned case. The full set of results for the data analysis are given as an appendix (Appendix III: Qualitative Assessment Report) to ensure a reading flow in thesis. This chapter is concluded with a discussion and evaluation of the Qualitative Audit Method which leads to the design of a semi-automated method to follow it.

The third part of the thesis explains the development of the Audit Design method; a semi-automated method to assess community knowledge transfer to WHS management plans, followed by its validation using the first case study and its evaluation and deployment using a different case study. In chapter 7, Audit Design is explained in detail using the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS as its basis for development, with additional information on design given in appendix (Appendix IV, Appendix V). Audit Design is tested in Chapter 8, deploying it to the Bursa and Cumalıkızık case study discussing its transferability to the wider context of Turkey and beyond, followed by conclusion in its effectiveness in assessing knowledge transfer and the required future work needed to ensure its potential transferability to other contexts.

Chapter 2. Problem Context and Definition

The heritage management literature comprises a wide range of academic research mainly regarding sustainability (Landorf 2009; Pereira Roders and van Oers 2011; Hribar et al. 2015; Han et al. 2016; Guzmán et al. 2017), local communities (Hodges and Watson 2000; Smith et al. 2003; Prangnell et al. 2010; Watson and Waterton 2010; Li et al. 2020), and tourism (Millar 1989; Weiler and Witt 1997; Emerick 2013) as well as the identification, documentation, and preservation of assets.

In this chapter, an overview of heritage management is presented firstly in the context of World Heritage Sites, with a specific focus on community involvement and subsequently in the context of Turkey. UNESCO draws attention to the significance of site management plans as documentary evidence containing the involvement of communities in the management system of the heritage site and the way of preservation of its outstanding universal value (UNESCO 2005a, para.108). Therefore, the first part of the chapter provides an overview of the literature in community involvement in world heritage sites and discusses the participatory approach based on the site management plans in the context of Turkey.

Changes in heritage management approaches in Turkey converge around the legislative framework on conservation (Madran 1996; Madran and Özgönül 2005; Levent 2008; Güçhan and Kurul 2009) and conservation practices that have evolved with these changes. In Turkey, community involvement has become a part of heritage management processes and has been enforced through the Site Management Regulation since 2005 particularly in World Heritage Sites (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005). The content of this regulation is explained in detail in the second part of the chapter, particularly in relation to the involvement of communities in site management processes and the professional roles of different stakeholders involved in site management teams. Even though this regulation was created for all heritage sites in Turkey, it gained importance in the preparations of management plans for UNESCO World Heritage Site nominations which require site management plans, also since 2005 (UNESCO 2005a, paras108–118). Finally, the chapter evaluates the role of site managers and their significance in this context.

2.1. World Heritage Site Management

World Heritage Sites (WHS) possesses universal heritage values of cultural and/or natural significance for all of the world population. Hence, their Outstanding Universal Value (OUV) is identified by ten main criteria in the Operational Guidelines for the Implementation of the World Heritage Convention (hereinafter referred to as Operational Guidelines) (UNESCO 2019, para.77). Many of these sites such as cultural

landscapes and historic urban landscapes host local communities and preservation of them depends on mostly their users and inhabitants.

Cultural landscapes are described as illustrations ‘... of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal’ (UNESCO 1994, para.36). Historic urban landscapes are urban areas comprising their context and geographical setting as the result of a historic layering of cultural and natural values and attributes (UNESCO 2005b, para.7; UNESCO 2011, para.8). The current number of listed properties as WHS, in 167 different countries, is 1121, from which 314 are urban areas and 112 are cultural landscapes, meaning approximately 37% of all the WHS have communities inhabiting them (UNESCO 2021).

As a means of safeguarding the OUV with local communities, site management plans are a mandatory requirement for World Heritage List (WHL) nominations. They are an important part of the UNESCO’s heritage management system framework which facilitate the planning, implementation and monitoring of actions applied to a cultural heritage site ‘to deliver results which guarantee the conservation and management of the properties and their associated values in a sustainable way’ (UNESCO 2013b, para.54). Site management plans were mentioned firstly in the 1977 Operational Guidelines, as the document for inclusion in the WHL (UNESCO 1977, para.13(iv)). In 1994, Operational Guidelines required them as an evidence of full commitment by the state parties for the inscription of sites (UNESCO 1994, para.6(v)).

However, the submission of site management plans became prerequisite for inscription as a World Heritage Site in 1997 (UNESCO 1997, para.64(4); Rodwell 2002, p.45). The World Heritage Committee (WHC) adapted the decision defining and being consistent in the use of the terms “management system” and “management plan” in 2003, and later in 2005 the WHC defined management systems and their common elements (UNESCO 2005a, paras97, 108–118, 132). They published the ‘*Format for the nomination of properties for inscription on the World Heritage List*’ (UNESCO 2005a Annex 5) as an annex to Operational Guidelines which required a management plan and assurances of its implementation.

2.1.1. Community involvement in World Heritage Sites

The human dimension in WHS was first recognised in the ‘*Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas*’ (UNESCO 1976, paras17(c), 35), which stressed that communities in historic urban areas should be included in their management and conservation process at all levels. Cultural significance was defined as an information source in the Burra Charter in 1984, and the community needs and expectations as another information source in 1985 (ICOMOS Australia 1987), whereas the emphasis on participation and involvement of residents of historic areas was stressed in the Washington Charter (US ICOMOS 1987, para.3). However, the capturing of local knowledge and its acknowledgement via participatory ways as part of WHS nomination processes was only recognized by UNESCO in the 90’s (UNESCO 1994, para.14).

The Quebec City Declaration led to the establishment of the World Heritage Cities Network adopting a new focus on shared responsibilities with communities (UNESCO 1991). Since then, a series of documents were revised putting more emphasis on the participation of local communities in the preservation of historic towns,

in their objectives and principles (US ICOMOS 1992, paras6, 7, 8, 10, 16), suggesting community involvement specifically in conservation practices by investigating significant associations between people, place and meaning of heritage (ICOMOS Australia 1999 Articles 24, 26.3).

Landorf (2009) draws a timeline on the development of participative approach held by the UNESCO WHC starting with the revision of Operational Guidelines in 1996, in which the ‘participation of local people’ was described as essential, then highlighting that in the Budapest Declaration from 2002, the WHC declared that they ‘*seek to ensure the active involvement of our local communities at all levels in the identification, protection and management of our World Heritage properties*’ (UNESCO 2002 Article 3(f)). The pivotal moment happened in 2005, when UNESCO extended its approach to participation by extending it to ‘*a wide variety of stakeholders, including site managers, local and regional governments, local communities, non-governmental organisations (NGOs) and other interested parties and partners*’ (UNESCO 2005a Article 12).

In 2005, the Xi’an Declaration (ICOMOS, paras4, 12) stated that the significance of heritage sites is enhanced by their setting and to understand the setting, an inclusive approach should be taken to use diverse information sources which include traditional knowledge of local and associated communities, meaning co-operation and engagement with them became an essential part of management practices (ICOMOS, paras4, 12). This was reinforced by the 2008 Québec Declaration on The Preservation of The Spirit of Place (ICOMOS Canada 2008) which states that ‘*The spirit of place is constructed by various social actors, its architects and managers as well as its users, who all contribute actively and concurrently to giving it meaning*’ (ICOMOS Canada 2008). Local knowledge contributes to the development of a sense of place tracing the past and changing patterns of life throughout time (Hodges and Watson 2000).

ICOMOS put more emphasis on the participation of communities as information sources in site management plans by adopting ‘*The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas*’ (ICOMOS, paras4(j, l)), suggesting participatory processes as a strategy. The World Heritage Convention (UNESCO 1972, para.5(a)) drew attention to participatory processes in Article 5(a) ‘*to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmes*’ (UNESCO 1972, para.5(a)).

Recognition and appreciation of community-held knowledge as part of heritage, not only enriches it but also increases the inclusiveness of its management process (MacKay and Johnston 2010). It bridges an important gap between the community involved and the planning professionals and management team developing the WHS management plan. The Convention (UNESCO 1972) and its Operational Guidelines (UNESCO 2019) stress the foremost priority of management systems should be the protection of outstanding universal value of sites together with their authenticity and integrity, stating that local stakeholders should be involved in conservation practices in many ways at different stages to ensure effective and active safeguarding of world heritage properties.

Currently, UNESCO has a specific set of guidelines for managing cultural world heritage (UNESCO 2013b), in which guaranteeing the conservation and preservation of the cultural site includes ‘*achieving the specific*

outcomes sought for the property and its stakeholders' (UNESCO 2013b, p.55). The inclusion of stakeholders in the process of managing cultural heritage attempts to acknowledge traditional management practices, distributed responsibility, and respect already existing community's structure and hierarchies. It also involves acknowledging and promoting local knowledge as part of world heritage, a knowledge which might come in many forms: experiences, memories, intimate moments, etc. (Carter and Grimwade 1997, p.3).

2.1.2. World Heritage Site Management Plans in Turkey

Laws and legislations on conservation have been modified over the last 70 years where public participation has been included in many different forms from tokenistic levels to partnerships over the course of this timeline. The Turkish government's participatory approach emerged with promoting heritage to the public and progressed to the involvement of communities in heritage management. Following UNESCO recommendations and charters, the legal framework on conservation in Turkey for site management defines what a "site management area" should be and enforces the development of a "site management plan" (Aydin et al. 2019, p.22).

Community involvement has been a requirement only for site management processes since 2005 with the enactment of Site Management Regulation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005). Even though the notions of *site management* and *management plan* were created for all heritage sites in Turkey, they particularly gained importance in the World Heritage Site nominations. UNESCO leaves detailed specifications for management plans to be dealt at country level since they differ depending on the context. Some countries are more prescriptive than others in terms of the content of management plans. Turkey regulates on the development and content of site management plans, stating that they should be structured based on themes, and contain objectives, strategies, and actions. Themes are defined according to the needs, interests, and contextual situation of the site during the process. Each planning theme has a set of objectives, which have a set of strategies with a subsequent set of related actions, structuring guidelines for the implementation and monitoring of the management plan. Each action should be defined together with its responsible actors (from implementers to consultants) and financial resources as well as contain a clear set of deliverable outputs with deadlines for implementation.

Turkey has currently 16 cultural properties inscribed on the World Heritage List (Figure 2), four of which are historical urban areas with a management system in place, including the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape, and Bursa and Cumalıkızık: The Birth of the Ottoman Empire used as case studies in this thesis. As historical urban sites with local community inhabiting the area, community engagement in these sites is seen as an integral part of the site management process, as specified by UNESCO and the Conservation law in Turkey, as part of WHS nominations.

Figure 2: World Heritage Sites in Turkey



Source: Illustrated by the author, photos taken from UNESCO website

2.2. The Site Management Regulation in Turkey

Before the current regulation was enacted, two site management plan documents were prepared for two heritage sites: Pamukkale/Denizli and Çatalhöyük/Konya. The “Pamukkale Heritage Site Management Plan” was the first one in Turkey without the current legislative framework. It was supported by the World Bank and prepared by the Ministry of Culture and Tourism in 2002. The second site management plan was completed in 2004 for “Çatalhöyük Heritage Site” within the Training, Education, Management, Prehistory in the Mediterranean Project (TEMPER) (Ulusan 2008).

In 2004, the regulation for urban conservation became effective and introduced "management site" and "management plan" notions (Law No.5226 Making amendments to Law on Conservation of Cultural and Natural Assets and other laws. 2004). Thus, the legal framework for site management has been set for the first time and management plan has been defined as;

“conservation and development project defined with yearly and five yearly implementation phases and five yearly monitoring plans, generated by considering the management plan, excavation plan and if any, landscape plan or conservation master plan in order to protect, sustain, value of the related site management area.” (Law No.5226 Making amendments to Law on Conservation of Cultural and Natural Assets and other laws. 2004, para.11)

In 2005, the *Regulation on the ‘Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites’* became effective and regulates the site management plan process (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005). The regulation comprises three main chapters about (i) the aim, scope, and definitions, (ii) the principles of site management, and (iii) the definitions and duties of the site management units. The last is explained first to set out the actors of the process and subsequently the principles were given.

2.2.1. Site Management Units

For every heritage site, a site management unit shall be formed by the competent authority (see Table 1, page 14) to coordinate the site management process. A site management unit comprises a site manager, a coordination and audit board, an advisory board, and an ad-hoc audit unit.

2.2.1.1. Site Manager

The site manager would ensure cooperation between all stakeholders and coordinate the site management process. To do so, she/he should be familiar with the area and develop a specific vision for it. In addition, she/he should have knowledge on new approaches to cultural and natural property management and implementations, and be a graduate from a relevant discipline (architecture, urban and regional planning, archaeology, art history, public administration, business management and economics) as defined in the regulation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site

Management and the Monument Council and Identification of Management Sites. 2005, para.14). The site manager should be appointed by the competent authority: either municipality in the urban heritage sites or the Ministry of Culture and Tourism in the archaeological, historical, and natural heritage sites (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.14).

2.2.1.2. Advisory Board

The advisory board should be composed of at least five members from landowners, professional chambers, NGOs, and relevant university departments and selected by the site manager and the competent authority. The advisory board shall elect a chairperson among its members (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.15).

The advisory board shall meet at least once a year. If deemed necessary by the competent authority and the coordination and audit board, the advisory board can be summoned to an extraordinary meeting. The role of the advisory board is to evaluate the draft management plan and make necessary suggestions to amend it. The final draft management plan shall be protocolled by advisory board for the submission to the coordination and audit board (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.15).

2.2.1.3. Coordination and Audit Board

The coordination and audit board should be composed of at least five members: the site manager, two members elected from the advisory board and at least one representative from each relevant institution whose services are needed within the scope of the management plan (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.16). The site manager is the chairperson of this board.

The role of the coordination and audit board is to approve the final draft management plan by evaluating it within a six months' timeframe and to monitor its implementation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.16).

2.2.1.4. Audit Unit

An audit unit can be set up to perform the audit function of the coordination and audit board. The audit unit shall have at least five members, appointed by the competent authority, composed of the officers taking part in the preparation and implementation process of the management plan, plus experts in architecture, urban and regional planning, art history, archaeology, public administration, business management and economics (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.17).

The role of the audit unit is to assist the coordination and audit board in the supervision of the implementation of the management plan by conducting annual performance assessments for its actions to be in line with its strategies for management, conservation, presentation, promotion, and visitor management (Regulation on

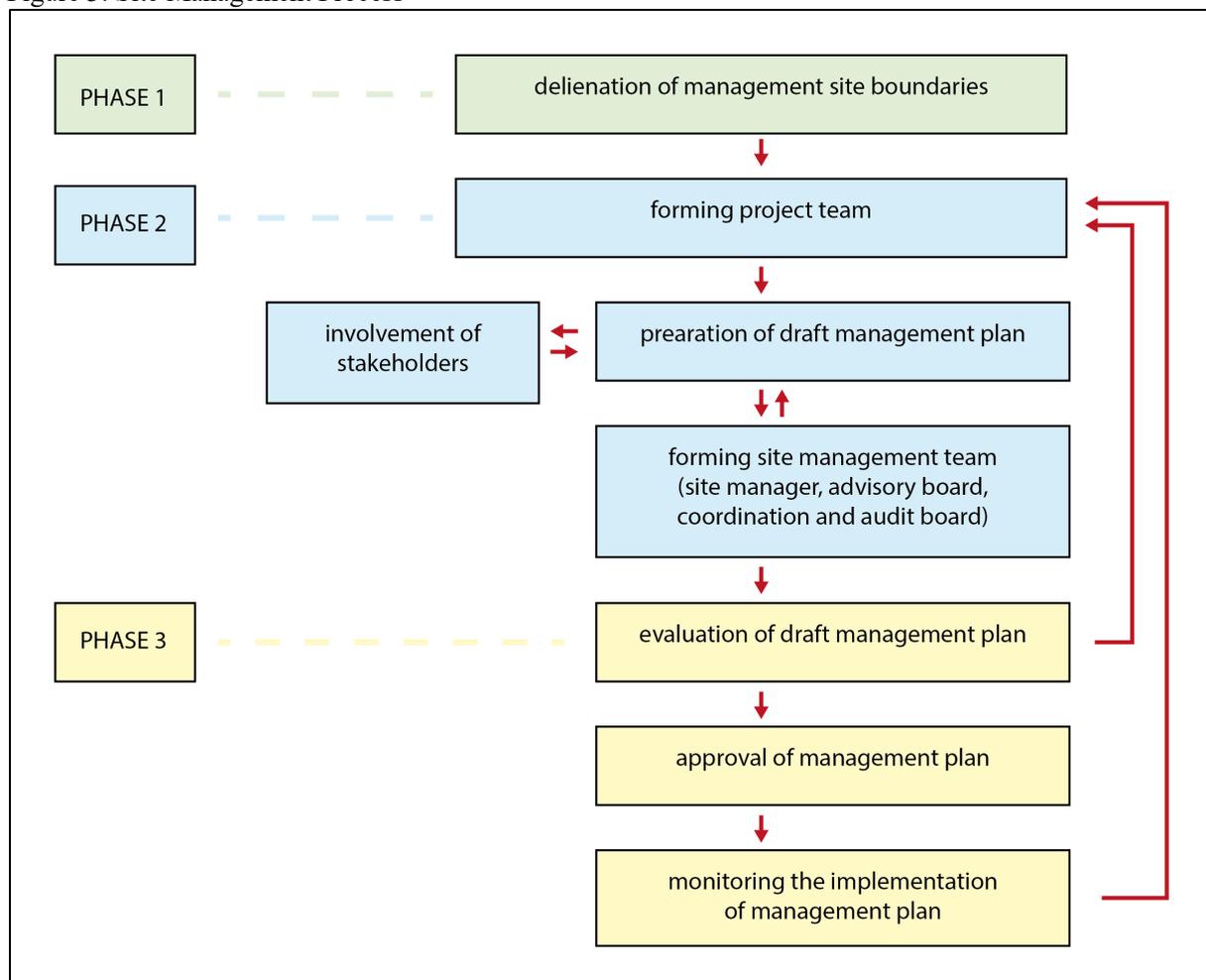
the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.17).

2.2.2. The Principles of Site Management

This section of the regulation comprises the principles for the delineation of the management site boundaries, defines the responsible institutions to manage the preparation, evaluation, and approval of the management plan, and expounds this process.

The management plan preparation process is composed of three main phases (Figure 3). The first phase is the delineation of site boundaries which shall be conducted by the Ministry of Culture and Tourism. The second phase is the preparation of the draft management plan by an assigned project team which might be formed within the competent authority or by tendering out a private company. The planning team organises community meetings and prepares a draft plan which would be evaluated and finalised by the advisory board in the third stage and disseminated to the relevant institutions and organisations following the approval by the coordination and audit board. The evaluation and approval of the management plan and monitoring of its implementation is facilitated by the site management units (Ulusan 2016).

Figure 3: Site Management Process

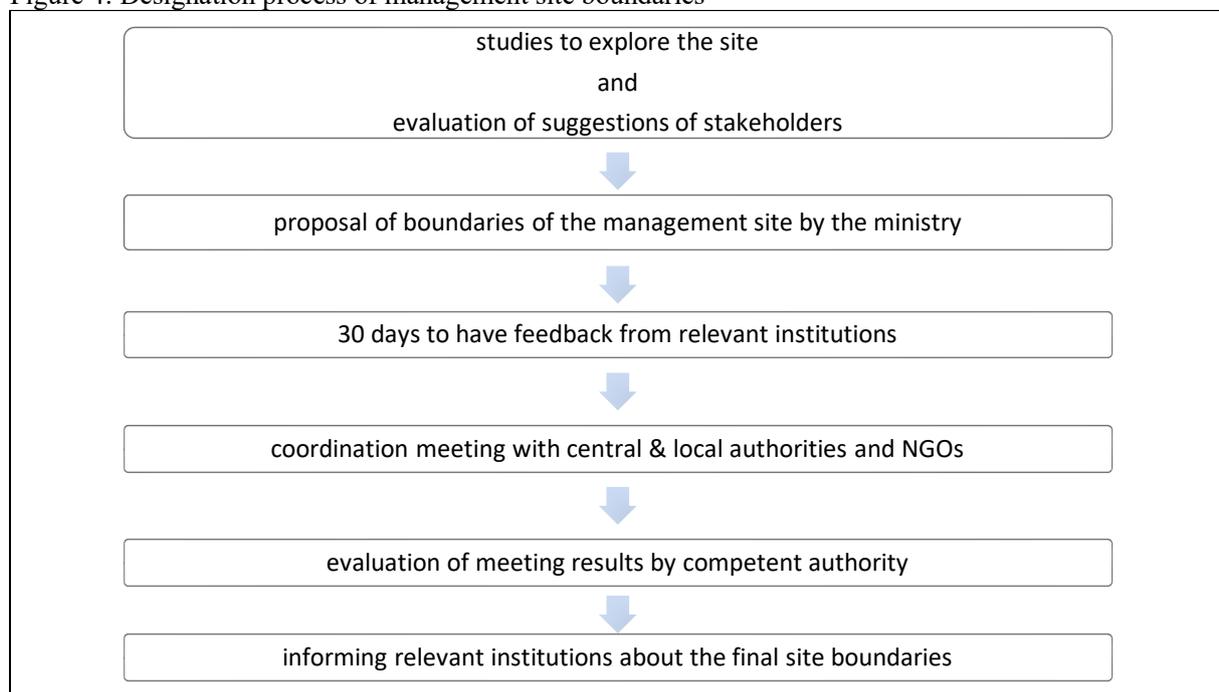


Source: Adapted from Ulusun (2016, p.380).

2.2.2.1. *First phase: delineation of management site boundaries*

The motivation for the preparation of a management plan is mainly to be involved in UNESCO World Heritage List and the reconstruction of a local economy by uplifting tourism in both national and international levels (Ulusan and Yıldırım 2016). The process starts with a request from central or local government to designate the boundaries of a given management site. The Ministry of Culture and Tourism facilitates a technical study to explore the existing situation and to evaluate the suggestions of stakeholders such as institutions, professional chambers, universities, non-governmental organizations, and landowners. Based on this study, the Ministry prepares a proposal and informs the relevant institutions to ask their views. The relevant institutions shall send their opinion within 30 days. After this period, the ministry organizes a coordination meeting to communicate with the central and local authorities, and non-governmental organizations. The process ends with the delineation of site boundaries based on the evaluation of the coordination meeting and the ministry informs relevant institutions about the final management site boundaries (Figure 4) (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.6).

Figure 4: Designation process of management site boundaries



2.2.2.2. *Second phase: management plan preparation*

The second phase starts by forming a planning team either within the competent authority or by tendering out a private office. The competent authority differs based on the type of the heritage sites (Table 1). If it is an historical urban site, the management plan preparation responsibility belongs to the competent municipality. In case of non-existence of a competent municipality, the Cultural Assets and Museums General Directorate is authorized, on behalf of the Ministry of Culture and Tourism, to prepare the management plan. In case of the existence of more than one competent municipality within the boundaries of the heritage site, the management plan is prepared by coordinating those municipalities with the competent

metropolitan municipality, if it exists, or with Ministry of Culture and Tourism if a competent metropolitan municipality does not exist (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.8).

If the heritage site is an archaeological, natural, or historical site, the Ministry of Culture and Tourism is authorized to coordinate the management process. If the heritage site is an urban conservation site with archaeological, natural, or historical assets, the competent municipality is responsible for the management plan preparation process (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.8).

Table 1: Competent authority for management of heritage sites based on the site type

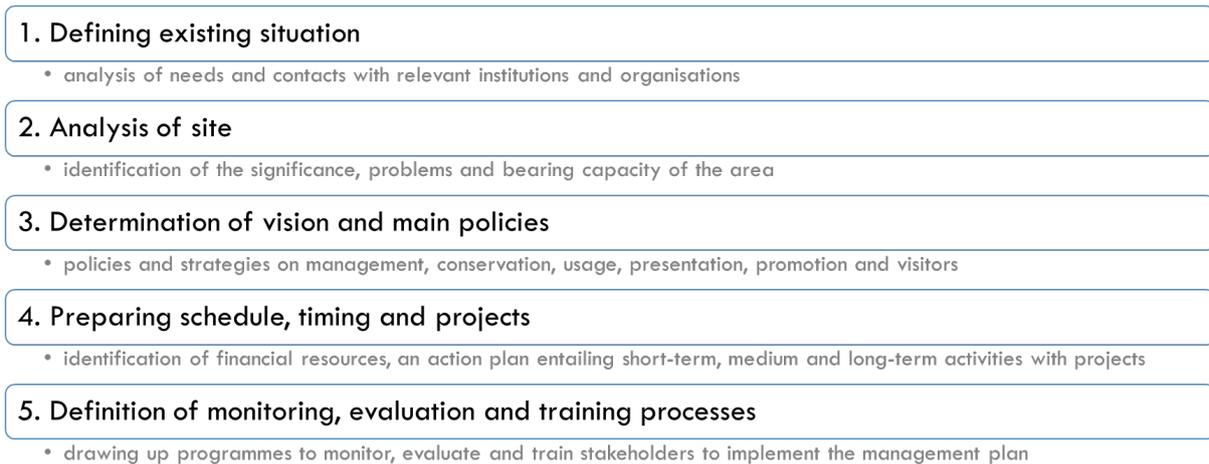
Site Type	Competent authority
Urban Conservation Site	<ul style="list-style-type: none"> ▪ Competent municipality ▪ Ministry of Culture and Tourism ▪ Coordination of municipalities by metropolitan municipality ▪ Coordination of municipalities by Ministry of Culture and Tourism
Archaeological, Natural, Historical Site	Ministry of Culture and Tourism
Mixed Urban Conservation Site	Competent municipality

The competent authority may prepare the management plan itself or by a tendering procedure. In both cases, the draft management plan should be prepared by a project team composed of experts and consultants from different professions, depending on the characteristics of the area in coordination, with the site manager appointed by the competent authority (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.10). A site management unit is also formed at this stage, comprising an advisory board, a coordination and audit board, an ad-hoc audit unit, and a site manager (Ulusan 2016).

At least two meetings should be organised with the community by the competent authority, one prior to, and one during the preparation of the draft plan. Community stakeholders should be invited from public institutions and organisations, local community, civil society organisations, professional chambers, universities, private sector and landowners in the area to consult and discuss the issues that will constitute the database of the management plan actions. (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.7).

The site management regulation highlights the participatory approach that should be taken by the planning team. Besides, it draws a content framework to ensure the effective conservation and management of the heritage. The regulation states that the content of the management shall include 5 sections: description of the existing situation, technical analysis of the heritage site, vision and policies, action plan, and description of the monitoring system to be implemented (Figure 5) (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.9). The structure was adapted from European and UK management plans to the Turkish context (Ulusan 2016).

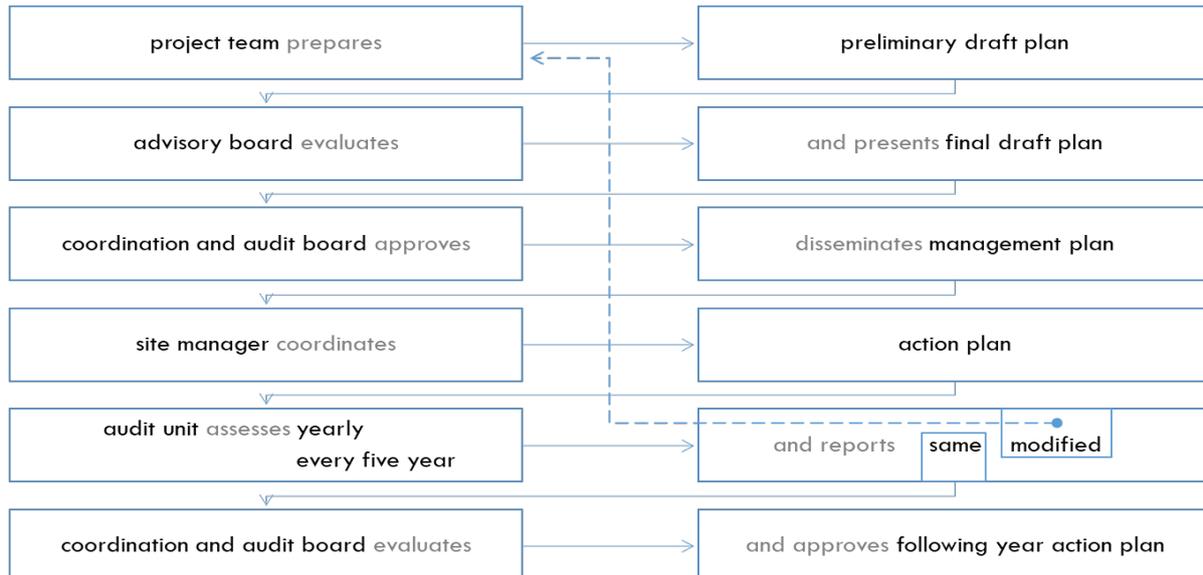
Figure 5: The content of the management plan as stated in the regulation



2.2.2.3. Third phase: evaluation and approval

The third phase of the site management process starts with the evaluation of the draft plan prepared by the project team in consultation with stakeholders under the supervision of the Site Manager. The process conceptualised in Figure 6 is mainly bureaucratic and represents the way defined in the regulation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005).

Figure 6: Third stage of site management as defined in the regulation



In Figure 6, the left column represents the authority who takes action, and the right column represents the action to be taken. Firstly, the preliminary draft plan prepared by the project team is evaluated by the advisory board who presents a final draft plan to the coordination and audit board. The coordination and audit board approves and disseminates the management plan (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, paras 11, 12). The audit unit might ask for modifications to the plan or might report

the current plan to the coordination and audit board for evaluation and approval (Figure 6) (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.13).

2.3. Community involvement and the significance of site managers

Table 2 provides an overview of community involvement in Turkish WHS to date, showing that it happened mainly from 2011, after the 2005 regulation was enacted. The two more recent cases show at least two points of consultations whereas the 2011 case was less explicit in relation to how involvement happened, despite reporting community membership in the Site Management Boards. Two of the oldest cases did not have management plans and community involvement was declared simply as "... some input into discussions relating to management" in periodic reports of ICOMOS (Table 2). In three of them, the effectiveness of this involvement was either in small drips (in the cases before 2005) or through different points of engagement (after 2005) which is difficult to judge because engagement does not necessarily mean that the voice of communities is heard.

Table 2: Community Involvement in Historical Urban WHS in Turkey (Periodic Reports of ICOMOS)

World Heritage Sites	Site Type	Management system	Community Involvement
Diyarbakır Fortress and Hevsel Gardens Cultural Landscape (2015)	Historical Urban	Management plan	Informative meetings Community meetings
Bursa and Cumalıkızık: The Birth of the Ottoman Empire (2014)	Historical Urban	Management plan	Informative meetings Community meetings Symposiums
Selimiye Mosque and its Social Complex (2011)	Historical Urban	Management plan	Involvement of the community as the members of the Site Management Boards Not stated explicitly (consultation/some input)
City of Safranbolu (1994)	Historical Urban	Ad-hoc	Not stated explicitly (some input)
Historic Areas of Istanbul (1985)	Historical Urban	Management plan	Not stated explicitly (some input)
Great Mosque and Hospital of Divriği (1985)	Historical Urban	No management system	Not stated explicitly (some input)

The community involvement debate in site management literature is mainly focused on the significance of the community-held values, the use of local knowledge in conservation practices and safeguarding heritage together with the communities. Who is responsible for these activities or who facilitates this process? The values-based approach in Burra Charter (1979) grounded site management practice on the definition of cultural significance (MacKay 2019), which should be assessed and stated by a qualified and comprehensively skilled practitioner(s) (ICOMOS Australia 1987, paras 1.4, 3.3, 3.4). This can be interpreted as the practitioner having both expertise to undertake the assessment and sufficient knowledge of the site to prepare a cultural significance statement.

On the other hand, UNESCO defines the role of the site manager as "*The professionals with direct responsibilities for heritage conservation and management of World Heritage properties globally.*"

(UNESCO World Heritage Centre 2019, p.32). Mackay (2019) claims that there is a shift in the professional practice from expert to facilitator regarding knowledge and roles. Hence, the site manager would be the professional and facilitator of the site management processes. In the Operational Guidelines, site managers are expressed as an individual party involved in the identification, nomination, management and protection processes of World Heritage properties, alongside with other parties; local and regional governments, local communities, indigenous people, and non-governmental organizations (UNESCO 2019, para.12).

In the context of Turkey, the site manager is defined in the regulation as a key role to be fulfilled by a professional from one of the relevant domains and as a person familiar with the site either by being a local or had worked on it previously (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.14). Professional skills cover the technical assessments related to the heritage site whereas local knowledge becomes prominent in the participatory processes to reflect the integration of community aspirations and needs in the management system. These attributes enable the site manager to act bilaterally and coordinate the site management process bridging the local communities with the different stakeholders involved in the management plan. Therefore, community involvement literature from different disciplines is reviewed to answer these two questions:

- Are site managers the key actors of the participative management processes with their bilateral role?
- Can they enhance the level of knowledge transfer from communities to management plans?

Chapter 3. Literature Review

Interaction between professionals and lay people has always brought with it values and interests of different parties. Knowledge exchange in decision making processes has been represented as technical knowledge, local knowledge, explicit knowledge and tacit knowledge, and participative approaches are about sharing or transferring the knowledge between different parties. In traditional (top-down) decision making, the direction of knowledge transfer is normally from professionals to lay people and defined as informative. In contemporary participatory decision-making processes, knowledge transfer is multi-directional and reciprocal.

Local knowledge on the other hand, is defined as ordinary knowledge; *“knowledge that does not need an origin, testing, degree of verification, truth, status, or currency to distinctive . . . professional techniques, but rather to common sense, casual empiricism, or thoughtful speculation and analysis”* (Lindblom and Cohen’s in Fischer 2000, pp. 193–194). This definition means local knowledge is only possible through experience, common sense development, and continuous trial and error. While local knowledge is informal, unwritten and contextual, scientific knowledge is formal, inherited in written format and abstract (Fischer 2000).

Polanyi (2009) brought up the tacit dimension of local knowledge by stating that *“we can know more than we can tell”* and refers to Gestalt psychology to explain the tacit dimension of knowledge. As in Gestalt psychology, tacit knowing is similar to perception, Polanyi explains this condition with an example of recognizing a face but not being able to describe every characteristic of it. Nevertheless, he quotes Plato; *“to search for a solution to a problem is an absurdity”* in order to legitimize the tacit dimension of knowledge (Polanyi 2009).

The hidden reality that people can sense but cannot explain is the implicit knowledge that people have and need to discover. However, knowledge transfer is another dimension of communication to debate problems. How can we discover tacit knowledge and/or transfer it to others in favour of more informed decision-making processes? How do we transfer the local knowledge into designs and place making?

In order to answer these two research questions, an epistemological cross-disciplinary literature review has been done in two fronts: the public participation theories and citizen professional approaches. The last part of this chapter merges the idea of the citizen professional with the one of the site manager discussed in Section 2.2.1.1. *Site Manager* and discusses possible contributions of this new agent with regards to its advantages in knowledge transfer and decision-making, highlighting the main research questions to be addressed by this thesis.

3.1. Participation in urban planning

Public participation literature comprehends many research fields since it relates to interactions between lay people and professionals. Participation is defined, theorized, and practiced by its elements, limits, tools, and methods in many areas (urban planning, political sciences, urban conservation, sociology, health care). For nearly half a century, it has been debated in academia (Davidoff 1965; Friedmann 1973; Glass 1979; Krumholz 1982; Shirvani 1985; Gibson 1986; Innes 1996; Healey 1997; Davidson 1998; Sandercock 1998; Fainstein 2000; Sanoff 2000; Arnstein 2004; Lane 2005; Carmona et al. 2010) and included in the agendas of governments particularly in urban planning and political science domains.

3.1.1. Theoretical studies

In urbanism, Davidoff (1965) pioneered in bringing public participation to urban planning agendas through the idea of advocacy planning. He argued that urban planners shall be the voice of the impoverished groups and advocate both interests: the ones of the people and the ones of the government. He defines a new role as “advocate planner” and defines this role as:

“The advocate planner would be more than a provider of information, an analyst of current trends, a simulator of future conditions, and a detailer of means. In addition to carrying out these necessary parts of planning, he would be a proponent of specific substantive solutions.”(Davidoff 1965, p.333)

Similarly, Krumholz (1982) introduced the approach so called equity planning, sharing his experience as an equity planner. He defines equity planning as “a way of addressing poverty and racial segregation” (Krumholz 1982). In subsequent years a series of theories started being developed such as Transactive Planning (Friedmann 1973), Consensus Building (Innes 1996), Collaborative Planning (Healey 1997), Cosmopolis (Sandercock 1998), Just City (Fainstein 2000), Alinsky model of community organization (Sanoff 2000), to cite a few. The aim behind all these theories was primarily to bridge the communication gap between the public and planning professionals. Innes (1996) criticizes comprehensive planning theories and defines the new role of a planner as the synthesizer who contributes to the process by his/her expertise stressing the collective search for a common ground to enable joint decision-making in consensus building. Healey (1997) further developed the theory of collaborative planning and discusses the interactions between professionals and communities with regards to style, language and discourse. All forms of knowledge arising from these interactions count as an input to the process and contribute to collaboration (Healey 1997). Sandercock (1998) in her Cosmopolis, puts emphasis on the multicultural dimension of cities and questions the role of planners in society whereas Sanoff (2000) and Friedmann (1973) define the role of the urban planner differently than in conventional practice. Sanoff (2000) cites the Alinsky model of community organization and defines the role of the community organizer as a facilitator and educator but at the same time as an enabler to help communities to be self-sustainable.

Friedmann (1973) stresses the significance of bridging the communication gap between those who have access to processed knowledge and those who gain knowledge by personal experiences. Since each party believes their knowledge is the most reliable, he suggests a new way of planning called “Transactive

Planning” which encompasses two levels of dialogue – person-centred communication and subject-matter-related communication – to bridge the aforementioned communication gap. In his theory of “transactive planning”, he (1973) defines the urban planner as an agent who assimilates both levels of dialogue bridging this gap. When a planner is able to structure a dialogue both as a person and as a professional, mutual learning occurs between both parties and solutions appear by themselves. Friedmann (1973) advocates the way of joining both personal and technical knowledge for social intervention in transactive planning by underlining the essence of dialogue.

3.1.2. Empirical studies

In parallel with these theories, there were studies which addressed public participation from a more practical and empirical perspective (Arnstein 1969; Gibson 1986; Davidson 1998). Arnstein (1969) led the way by proposing “Ladder of Participation” to categorize the types of participation from non-participation level to citizen power level after assessing the “Model Cities” program with its examples in the USA. Scott Davidson (1998) who proposed the “wheel of participation” with an interpretation on Arnstein’s Ladder, advocated the selection of a method for participation rather than simply aiming an uplift towards the top of the ladder. Gibson (1986) focused on residents’ real needs and preferences and raised the “Planning for Real” method to overcome the communication gap between planners and residents.

In the urban design field, as cited in Carmona et al. (2010, p.17) community urban design “*works with and in communities developing proposals from the grassroots level. Particularly applicable to the neighbourhood scale [and] employs a range of approaches and techniques to engage with those who will use the environment.*” He also points out the communication gap between professionals and laypersons or, in other words, the gap between the designer and the user (Carmona et al. 2010), stating there are problems to be overcome related to language, lack of trust, and lack of interest that magnify the communication gap. Shirvani (1985) analyses the human dimension of urban design and proposes two participatory approaches: facilitation approaches and advocacy approaches. The latter promotes public involvement and helps disenfranchised groups, while the former supports more active citizen involvement by using tools for dialogue. Facilitation approaches may be called as an initial encouragement step for gaining trust, creating a common language and beholding the design profession as a setting for everyday life. Planning for Real, Action Planning Events, Community Charrettes, Collaborative Events, and Urban Design Assistance Teams are common methods of community planning and urban design processes that bring professionals and lay people together geared towards sharing ideas and knowledge (Carmona et al. 2010).

3.2. Participation for decision-making

In political sciences, community participation has been examined from the perspectives of: public controversies (Carpenter and Kennedy 1988), democracy (Box 1998; Timney 1998), managerial dynamics (Thomas 1993; Bishop and Davis 2002; Vigoda 2002; Callahan 2007), etc. Nonetheless, all the studies agree that good relationship and interaction between the decision-makers and communities provide better public services. Carpenter and Kennedy (1988) unfold the topic of conflict management in decision-making and offer a guide for conflict resolution: managing public disputes for public managers. They position the professional as a facilitator who aims to help productive and focused discussions on the issues to be resolved

and the goals to be achieved (Carpenter and Kennedy 1988). The main idea behind these guidelines is being constructive and planning a flexible process with the involvement of the community by considering risks and possible outcomes of interactions between lay people and professionals (Carpenter and Kennedy 1988). Box (1998) discusses further the roles of citizens, representatives and practitioners under the title of “Citizen Governance” and defines the role of “public service practitioner” as facilitator of the social change for being aware of historical, political and economic contexts and being prepared to handle challenges in society. Thomas (1993) introduces a typology of public participation for local administrators to be able to understand how and when to involve the public in order to achieve efficiency in decision making processes. In his "effective decision model of public involvement for administrators" (Thomas 1993, p.448), he introduces 5 levels of community involvement:

1. **Autonomous managerial decision:** *The manager solves the problem or makes the decision alone without public involvement.*
2. **Modified autonomous managerial decision:** *The manager seeks information from segments of the public but decides alone in a manner that may or may not reflect group influence.*
3. **Segmented public consultation:** *The manager shares the problem separately with segments of the public, getting ideas and suggestions, then makes a decision that reflects group influence.*
4. **Unitary public consultation:** *The manager shares the problem with the public as a single assembled group, getting ideas and suggestions, then makes a decision that reflects group influence.*
5. **Public decision:** *The manager shares the problem with the assembled public, and together, the manager and the public attempt to reach agreement on a solution. (Thomas 1993, p.448)*

He implies that local administrators have the power and knowledge to comprehend the stages where there is a need for community participation or a need for technical decision making in the process. His decision model helps to decide the level of community involvement.

Bishop and Davis (2002) analyses public participation in policy making and extracts four different approaches; (i) participation as a continuum, (ii) linking participation to policy problems, (iii) a continuum of management techniques, and (iv) participation as discontinuous interaction. They conclude their work suggesting to choose a technique from a map of participation types since each instrument has a public rationale (Bishop and Davis 2002, p.27).

Timney (1998) defines three types of government models – government for/by/with the people – to analyse participation in decision-making. “Government for people” represents the model where citizens are passive while experts make decisions for them. “Government by people” is the model where citizens are active and have the control on making decisions. “Government with people”, on the other hand, illustrates a hybrid model where government and citizens work together to make decisions. She (Timney 1998, pp.93–94) concludes that each model has its own characteristics; active model allows citizens to make the decisions under the consultation of experts but might diminish the role of administrators. On other extreme, passive model includes the public at the consultation of draft decisions but it is uncertain that their views are considered in the final. However, the hybrid model, 'government with people' aims to build consensus and

to develop partnerships. Not the administrators' but the public's expertise control the decision-making process only in the government by people model.

Vigoda (2002) proposes an evolutionary continuum for reciprocal interaction of citizens and administrators with predefined roles within this continuum which represents the evolution of interactions between public administrators and citizens, respectively; coerciveness, delegation, responsiveness, collaboration, and citizenry coerciveness. He emphasizes the evolution along the continuum towards collaboration and partnership, and the changing roles of the administrators and citizens within this spectrum (Vigoda 2002, p.531).

Callahan (2007) defines a broader spectrum of relationships including managerial approaches and dynamics, stressing misunderstandings in roles by each party due to gaps in communication. Misunderstandings occur with the over-simplifications of interactions between government and citizens whereas direct involvement of citizens has its own drawbacks such as lack of required level of expertise, unwillingness of time commitment and lack of interest in being involved in every part of the decision-making process. Hence, she suggests that public administrators should be trained to enable direct citizen participation in practice to avoid these misunderstandings and get effective management processes in place (Callahan 2007).

3.3. The Citizen Professional idea to improve knowledge transfer

A holistic understanding of a variety of participatory processes, their limitations, and the assessment of existing strategies and methods in practice reveals a problem of miscommunication between technicians / experts and communities. Problems which go beyond the interaction of professionals and lay people and include communication gaps as well as a debate over knowledge transfer, framing technicians as those who lack local knowledge or in-depth understanding about the place, the community, and its problems; thus, showing particular difficulty in transferring community knowledge to decision-making processes in the form of design solutions and/or actions. A thread of scholarship, therefore, proposes that a new actor namely, citizen professional ought to possess local knowledge and, at the same time, have technical expertise to analyse and synthesize data throughout the decision-making processes, transforming community problems into tractable problems. The idea of citizen professional comes originally from the health care domain (Doherty 2013; Doherty 2017) but is now discussed in sociology (Kuhlmann 2006b; Kuhlmann 2013a) and political science (Boyte and Kari 1996; Boyte 2008b; Hall and Couto 2012) domains as well. Therefore, this section presents definitions, attributes and roles of citizen professionals comparing it with those of the site manager as defined in Section 2.2.1.1. *Site Manager* of the previous chapter.

The idea of citizen professional was first proposed by William Doherty in 2013 in health care domain. Doherty (2013) characterises the citizen professional as an identity and a body of knowledge. When community problems are not resolved either by professionals or by the government, the role of the citizen professional becomes relevant. The required link between professionals and lay people may be provided by the so called 'citizen professional', an agent who knows the community and also has technical knowledge and expertise to act as a decision maker within their domain. By means of knowledge, citizen professionals may be able to observe and understand community problems and create connection between the profession and communities' needs. Doherty (2013) points out two characteristics of a citizen professional dissimilar to

a traditional professional. Firstly, the citizen professional has an identity as a citizen with special expertise. They know the community and own the technical knowledge to link community problems to the profession. Secondly, the citizen professional is a body of knowledge who is able to connect between personal and public dimensions of their profession. Moreover, Doherty (2013, p.117) denotes a pressure point in his article to initiate the process for citizen professionals to facilitate participation. In health care field, he gives the example of a serious health problem or a social challenge which cannot be solved by traditional practice and needs to be solved since it concerns the whole community. He advocates that these types of problems should be considered from the perspectives of the community and could be disentangled by citizen professionals who are citizens with professional expertise.

In social policy, Boyte (2008) says that *“Citizen professionals are proud of their knowledge and the craft of their discipline, but they also know their limits. Citizen professionals are citizens who see their specialized knowledge as “on tap, not on top,” in the words of community organizers”* (Boyte 2008, p. 144). The role of citizen professionals, in the view of Boyte (2008a), is to integrate their specialized knowledge into a larger project helping to create wisdom in the communities by bringing knowledge of larger contexts and catalysing reflections on values and civic meaning. Serious problems unsolved by professional approaches would be considered in terms of community and could be disentangled by citizen professionals who are citizens with professional expertise (Boyte, 2008). Citizen professionals differs from traditional experts with regards to source of knowledge, skills, role, and goal. Therefore, they are not service providers like traditional experts, they are catalysts thanks to their local citizen knowledge in addition to technical knowledge (Boyte, 2008). Contrary to the term ‘profession’ that refers to an expertise, Kuhlmann (2013b) defines citizen professional as a mediator who embodies a reciprocal relationship between the expert who serves and the client who benefits from it. She analyses the concept from a sociological viewpoint and states that citizen professionals bridge the state with the public/citizens by shaping and being shaped by transformations in society.

On the other hand, Hall and Couto (2012) describe the characteristics of a citizen professional in relation with community organizations. The citizen professional acts as a facilitator and guides the community organization in the pursuit of their goal through participation. Hall and Couto (2012) emphasize the role of citizen professional as an assistant to the community organisation and draw a roadmap for the role guiding in participative processes.

Table 3: Definitions of Citizen Professional Role in different domains

Domain	Definition	Attributes	Role
Health Care (Doherty, 2013)	Unlike the conventional professional, citizen professional interacts with citizens with an identity and as a body of knowledge.	Engaging with community; Awareness of deficiency in solving social problems; Understanding of an inclusive profession	Identifies a pressure point for society; Gets buy-in from institutions and community leaders; Establishes a citizen action group; Facilitates the meetings; Explores community assets and develops an action with the group
Social Policy (Boyte, 2008)	Citizen professionals are professionals working with citizens rather than for them.	Working actively with citizens as a resource; Ability to integrate their specialised knowledge	Works to build community ties and utilize local knowledge; Catalyses reflection on the values and civic meanings

Domain	Definition	Attributes	Role
Political Science (Hall and Couto, 2012)	Citizen professional is the helper of the community organisations to achieve their goal via participation.	Acting as a facilitator; Assisting community organisation	Enables community organisation to create trustable relations; Encourages community to reflect upon and analyse their situation
Sociology (Kuhlmann, 2013)	Citizen professionals are mediators between the state and citizens.	Providing communication via a reciprocal relationship; Shaping and being shaped by transformations in society	Embodies a reciprocal relationship between the expert who serves and the client who benefits from it

In urbanism, community participation debates direct to a similar concept of mediator, facilitator or community organizer who has adequate knowledge of the area, can manifest the contextual issues of the built environment, and has expert knowledge necessary to transfer local knowledge into actions.

Nevertheless, some scholars describe a similar role for professionals (Table 4). For example, a community organizer role is described as a facilitator and educator to help the community to be self-sustainable in designing their built environment (Sanoff 2000). On the other hand, in his transactive planning theory Friedmann (1973) describes an urban planner who assimilates both levels of dialogue as a person and as a professional to bridge this communication gap and underlines the essence of knowledge transaction. These theories show that this role is applicable to the urbanism domain.

Table 4: Roles similar to citizen professional defined in urbanism domain

Scholars	Concept	Attributes	Role
Henry Sanoff (2000)	Community Organiser	A facilitator An educator	Helps communities to become self-sustainable in designing their built environment
John Friedmann (1973)	Urban Planner	A person A professional	Bridges communication gap between professionals and lay people Incorporates the dialogue for knowledge transaction

The adaptation of the citizen professional role from health care to urbanism seems very relevant and accommodates a potential improvement in decision-making processes as communication problems occur from lack of trust, misrepresentation of interests and exclusion of community knowledge. The citizen professional can be a trustable insider, can communicate with any stakeholder, and finally can bridge the communication gap between professionals and community, potentially improving community knowledge transfer into design and action.

In heritage management, the site manager also possesses similar attributes to the ones of the citizen professional as stated in the Turkish site management regulation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005), which states that the site manager shall have adequate knowledge of the site to develop a specific vision for it and shall be competent and experienced in the domain. They are either a part of the community or have great knowledge on the community's history, traditions, and culture,

meaning they share the community's experiences, and understands the situation as a local, consequently they are accepted as a member of the community. Besides, as a professional from the relevant domain, they possess the technical knowledge on practice and masters the academic debate in the domain. Hence, the site manager coordinates the site management process and ensures coordination between all stakeholders (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.14).

Table 5: Customization of Citizen Professional in Urbanism and Heritage Management

Domain	Definition	Attributes	Role
Urbanism	Citizen professional is a trustable insider for the community with the ability to communicate to all stakeholders and act as a mediator for the profession.	Possessing adequate knowledge of the area; Manifesting the contextual issues of the built environment; Ability to integrate technical knowledge and local knowledge transferring it into action as an expert in the relevant field	Bridges the communication gap between professionals and community; Enables better community knowledge transfer into design and action
Heritage Management (Turkish Site Management Regulation, 2005)	Site managers shall have adequate knowledge of the site to develop a specific vision for it and shall be competent and experienced in the domain.	A member of the community; A professional in the relevant domain; A coordinator of the site management process	Coordinates the site management process; Ensures collaboration between all stakeholders; Devises a work schedule to achieve goals of management plan

Fischer (2000) reminds the significance of the citizens' abilities to participate, and the experts' need for citizen participation. Citizen professionals comprise both these stakeholders and so comprehends their interests. They ultimately are the professional i.e., an urban planner, an academician, a sociologist, and the insider i.e., a citizen, a local, a mother, a neighbour, but not just a mediator, a facilitator, an activist, or an advocate.

3.4. Considering Site Managers as Citizen Professionals in the context of Turkey

In light of the citizen professional debate, site managers in the context of Turkey can be considered potential example of citizen professionals. Therefore, site management processes including a site manager can be considered good examples of WHS management plans developed with a participative approach as this role implies higher transferability of local knowledge to management plans. However, to what extent this is true? All studies presented in this review discussed the role of community participation in planning and decision-making and showed a continuous gap in knowledge transfer from community-based knowledge to design decision-making. The role of the citizen professional is therefore put in place in an attempt to, in theory, mitigate this problem but to the best of the researcher's knowledge, there are no records in the literature that actually prove this is the case. Essentially, the role is put forward as a proposition to address a problem with knowledge transfer but not testing mechanism is in place to prove its effectiveness. Can the site manager / citizen professional effectively translate community knowledge to actions proposed in WHS management plans? How much of what is discussed in community meetings effectively translate into management plan actions to embed their values into WHS management plans? To what extent does community involvement

and the role of this dual agent result in the development of participatory WHS management plans? This thesis will examine these questions via an unconventional way using mixed methods from social research methods to knowledge engineering.

Chapter 4. Research Design

The literature review established the grounds for the framework of this research, which aims to explore how to assess knowledge transfer from communities living in WHSs to management plan actions using case studies in Turkey. Considering if site managers are actually citizen professionals with adequate knowledge of a site, able to develop a specific vision for it and being competent and experienced in the domains of heritage and/or urban planning, case studies for analysis are selected by ensuring the WHS:

- (i) has a management plan prepared for its inscription in UNESCO;
- (ii) hosts a local community in the area to be preserved, and
- (iii) has a site manager appointed to be in charge of the development of the management plan.

Turkey has sixteen cultural and two mixed properties inscribed on the UNESCO World Heritage List (UNESCO World Heritage Centre [no date]). However, a management system is in place for only eleven of them, out of which only four are historical urban sites hosting local communities (Table 6).

Table 6: Case Study Selection based on the attributes of the WHS in Turkey

World Heritage Sites in Turkey	With a management plan	Accommodates a local community
<ul style="list-style-type: none"> • Aphrodisias (2017) • Archaeological Site of Ani (2016) • Archaeological Site of Troy (1998) • Bursa and Cumalıkızık: The Birth of the Ottoman Empire (2014) • City of Safranbolu (1994) • Diyarbakır Fortress and Hevsel Gardens Cultural Landscape (2015) • Ephesus (2015) • Göbekli Tepe (2018) • Great Mosque and Hospital of Divriği (1985) • Hattusha: the Hittite Capital (1986) • Historic Areas of Istanbul (1985) • Nemrut Dağ (1987) • Neolithic Site of Çatalhöyük (2012) • Pergamon and its Multi-Layered Cultural Landscape (2014) • Selimiye Mosque and its Social Complex (2011) • Xanthos-Letoon (1988) 	<ul style="list-style-type: none"> • Aphrodisias (2017) • Archaeological Site of Ani (2016) • Bursa and Cumalıkızık: The Birth of the Ottoman Empire (2014) • Diyarbakır Fortress and Hevsel Gardens Cultural Landscape (2015) • Ephesus (2015) • Göbekli Tepe (2018) • Historic Areas of Istanbul (1985) • Nemrut Dağ (1987) • Neolithic Site of Çatalhöyük (2012) • Pergamon and its Multi-Layered Cultural Landscape (2014) • Selimiye Mosque and its Social Complex (2011) 	<ul style="list-style-type: none"> • Bursa and Cumalıkızık: The Birth of the Ottoman Empire (2014) • Diyarbakır Fortress and Hevsel Gardens Cultural Landscape (2015) • Historic Areas of Istanbul (1985) • Selimiye Mosque and its Social Complex (2011)

These four cases, are therefore, examined with regards to the level of community engagement during the preparation of their management plans as well as the level of local knowledge of their site managers, who do not always meet the characteristics defined in the Site Management Regulation, i.e., do not always have knowledge of the area (Table 7). The project team in each of these cases can be either a governmental body or be contracted out to an external private company or a university department. Data from ICOMOS evaluations and periodic reporting documents published by World Heritage Centre (UNESCO World Heritage Centre [no date]) obtained from UNESCO website (UNESCO World Heritage Centre [no date]) for these four sites are displayed in Table 7.

Table 7: Participation levels in selected World Heritage Sites for the research

Name of the Site	Location	Knowledge of Site Manager	Community Engagement	Project Team
Bursa and Cumalıkızık: The Birth of the Ottoman Empire	Bursa	technical and local knowledge	2 stages	Private company
Diyarbakır Fortress and Hevsel Gardens Cultural Landscape	Diyarbakır	technical and local knowledge	2 stages	Private company
Historic Areas of Istanbul	Istanbul	technical knowledge	Unknown	Government and private company collaboration
Selimiye Mosque and its Social Complex	Edirne	technical and local knowledge	Unknown	Governmental body

Only one of these WHSs, the Historic Areas of Istanbul, had a site manager been appointed with technical knowledge but no knowledge from the area. Reports from community engagement were only found for two of them. Two stages of community engagement refer to two meetings with the community; the first one informs the beginning of the management plan preparation process whereas the second one is actually a consultation, named ‘survey meeting’, to ask local communities about their ideas, opinions, and aspirations for the area. As a result, only two case studies were selected for analysis in this thesis, both are historical urban sites, in which a private company coordinated the management plan preparation process with two stages of community engagement and each site manager has a thorough knowledge of the area as well as the expert knowledge (Table 7).

The Diyarbakır Fortress and Hevsel Gardens Cultural Landscape WHS (case study 1) is located in the city of Diyarbakır, in the South-eastern Anatolia Region of Turkey. The nominated property has six components: Amida Mound, City Walls, Hevsel Gardens, Ten-Eyed Bridge, Tigris Valley, and natural resources. The site is stated as “site” and “cultural landscape” due to its outstanding universal value, respectively defined as works of man and combined works of nature and man in the UNESCO World Heritage Convention (UNESCO 1972, para.1) and the Hevsel Gardens and Tigris River have played a vital role in the city’s history by virtue of the natural resources and capacity of providing food and water for civilizations throughout the different historical periods.

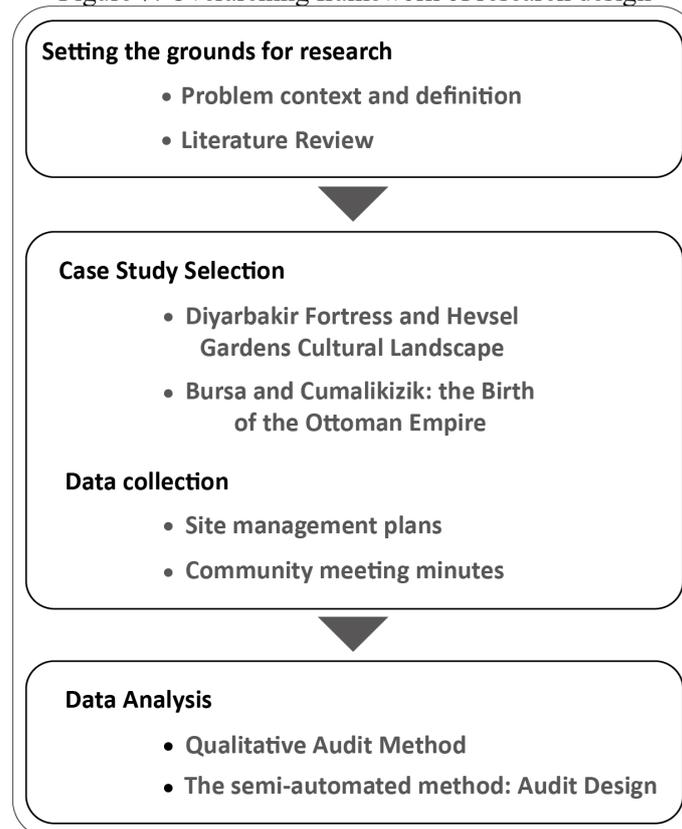
Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS (case study 2) is located in the city of Bursa, in north-western Turkey. The site is a serial nomination of eight component sites which illustrate the creation

of an urban and rural system from the Ottoman Empire in the early 14th century. The property illustrates key functions of the social and economic organization of the new capital of the Ottoman Empire which evolved around a new civic centre. One component outside the historic centre of Bursa is the village of Cumalıkızık, the only rural village of this system originally showing the provision of hinterland support for the capital.

Case study 1 was used to create an assessment method for gauging knowledge transfer from community focus group meetings to site management plan actions. A qualitative method was initially developed from which a quantitative assessment process was derived with large parts of it, semi-automated and potentially transferable to other contexts. The semi-automated process was validated using the quantitative method from case study 1 and deployed and tested in case study 2 to assess its potential and transferability to different contexts and derive guidance for improvement in future research.

The level of knowledge transfer is gauged based on two main documents: minutes of community meetings and the site management plan. The former includes the issues raised in community focus group meetings and can be considered the input from the participatory process, summarising a set of issues raised by the different stakeholders involved in the project, expressing insiders' knowledge of the site and its context. The latter comprises management plan actions and can be considered the output of the participatory process, as this is the official document, prepared by the project team coordinated by the site manager, containing, in theory, community knowledge embedded in it.

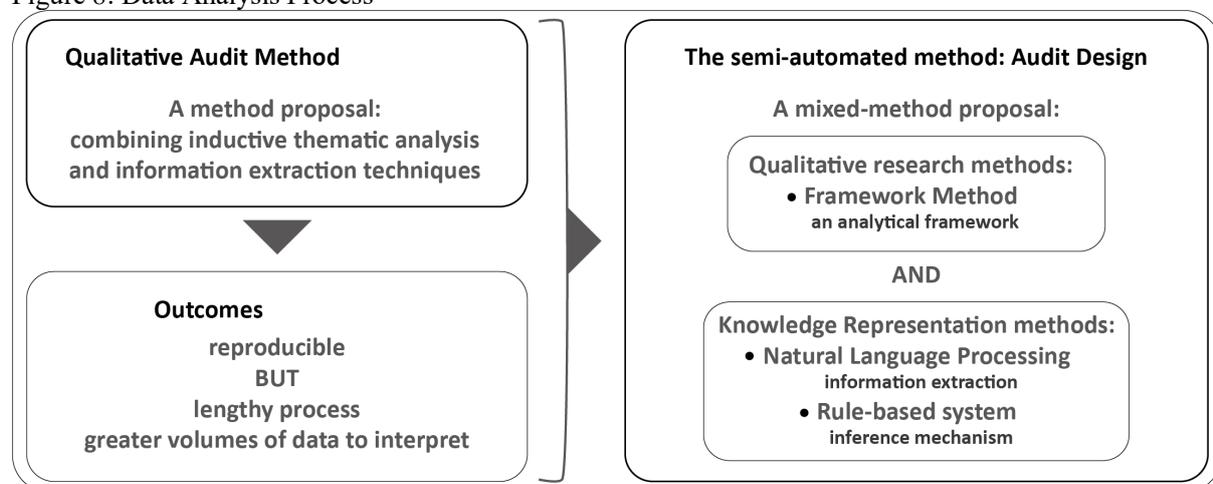
Figure 7: Overarching framework of research design



Briefly, the context of the research question was given, and the problem was defined to set the grounds for the research. Subsequently, case studies were selected, and data sources were collected for a qualitative auditing to be undertaken followed by a quantitative one which is a semi-automated method derived from the former (Figure 7).

The auditing process was developed using the data from Diyarbakir Fortress and Hevsel Gardens Cultural Landscapes WHS. The qualitative auditing gauged the level of knowledge transfer from community meetings to the management plan actions (Figure 8) using an iterative inductive thematic analysis together with information extraction techniques from the domain of knowledge engineering. The thematic analysis was undertaken to extract patterns of knowledge transfer embracing a data-driven approach whereas information extraction was based on the process of scanning text to search for information of some interest. Information extraction techniques were used to search for associations, and to review and refine the thematic analysis for a consistent and coherent analysis procedure. Finally, the outcome of the data analysis was a long report difficult to interpret and even though reproducible, time-consuming, and risking in transferability to other management plans with similar structure (Figure 8).

Figure 8: Data Analysis Process



Therefore, the proposed method was further developed into a semi-automated method, called Audit Design (Figure 8) integrating Natural Language Processing and rule-based analysis methods into it. The inductive thematic analysis method in the qualitative audit method was replaced by the Framework method to summarise and display the data in thematic matrices developing an analytical framework. These matrices were created automatically using information extraction techniques developed in Natural Language Processing (NLP). Finally, to make inferences about the levels of knowledge transfer from community meetings to the site management plan, a rule-based method from the knowledge representation domain, comprising an inference mechanism with if-then rules and prescribed concepts (Figure 8), was employed.

The rationale behind the adaption of the Framework method is its advantages. It helps to categorise and code the data with its analytical framework and extracts the existing patterns of data as it employs a data-driven approach. However, it also requires well-defined and clear codes in categorisation to anticipate the risk of subjectivity.

Natural Language Processing is, on the other hand, offers tools such as Information Extraction which automates the categorisation process. The selected open access software provides for Information Extraction task supports ease of use and applicability with its simple structure, even though it requires some skills to use the software which forces the users to learn it.

The rule-based system automates the lengthy assessment process by extracting automatic natural language representations and provides an objective assessment since it is computational. Nevertheless, it also requires some degree of software skills which can be easily obtained following the clear guidelines provided in method deployment.

The Audit Design method was tested on the data from Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS to illustrate an objective assessment with its automated and computational structure, to verify if it is independent and transferable to other WHSs hosting local communities managed via a site management plan.

The next chapters describe the methods used in detail and their applications into respectively, the case study for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS, exempling the development of the Qualitative Audit Method and its transformation of it into a semi-automated method, called Audit Design, followed by its test and deployment into the Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS.

Chapter 5. Case Study Description

Figure 9: Aerial view of Diyarbakir Fortress, Surici Area and Hevsel Gardens



Source: Nomination Dossier (Turkey (State Party) 2014, p.1167)

The Diyarbakir Fortress and Hevsel Gardens Cultural Landscape were included in the tentative list of Turkey for world heritage site nomination in 2000, and the site management plan and nomination dossier preparations started in January 2012. The application dossier for an inscription as a World Heritage Site was submitted to UNESCO WHC by the Ministry of Culture and Tourism (MoCT) of Turkey in February 2014 and inscribed by UNESCO WHC in 2015 (Decision 39 COM 8B.32). Based on the socio-economic structure of local community, eight focus group meetings, 400 questionnaires, a meeting with 19 mukhtars¹ of the area, and two survey meetings² with the public were organised throughout the process. Focus groups comprised local associations (women, children, youth, people with disabilities), and Hevsel Gardens' users to ensure full community participation.

¹ Elected representative of a neighbourhood and responsible to conduct the legislative works of that neighbourhood. Duties of mukhtars are defined in Law No 4541.

² Survey meetings refer to the meetings held with the public to inform them about the nomination process of the World Heritage Site and to ask their opinions on the matters.

This chapter examines the process of site management plan preparation by describing the heritage site, and introducing its components followed by stating its Outstanding Universal Value (OUV) with the eligibility criteria behind them and the reasons for the inscription of site as a World Heritage. It then illustrates the management plan preparation process and compares it to the standard procedures indicated by the site management legislation in Turkey. It concludes by presenting the contextual and structural details of a site management plan as stated in the relevant legislation and comparing it with Diyarbakir Fortress and Hevsel Gardens Cultural Landscape site management plan.

5.1. The World Heritage Site and its Components

The WHS, encircles the Diyarbakir city with its fortress walls and its adjacent cultural landscape in the South-eastern Anatolia Region³ of Turkey (Figure 10). Due to its strategical position on the Silk Road, it has been the capital of many civilizations in its 7000 years of history (ICOMOS 2015). Subsequently Hellenistic, Roman, Sassanid, Byzantine, Islamic and Ottoman periods had left many traces on the city walls which are the longest standing ones in the world after the Great Wall of China. The Hevsel Gardens and the Tigris River have played a vital role in the city's history by virtue of the natural resources and capacity of providing food and water for civilizations throughout the different historical periods. The site is stated as "site" and "cultural landscape" due to its outstanding universal value, respectively defined as '*works of man*' and '*combined works of nature and man*' in the UNESCO World Heritage Convention (UNESCO 1972, para.1).

Figure 10: Location of the Site

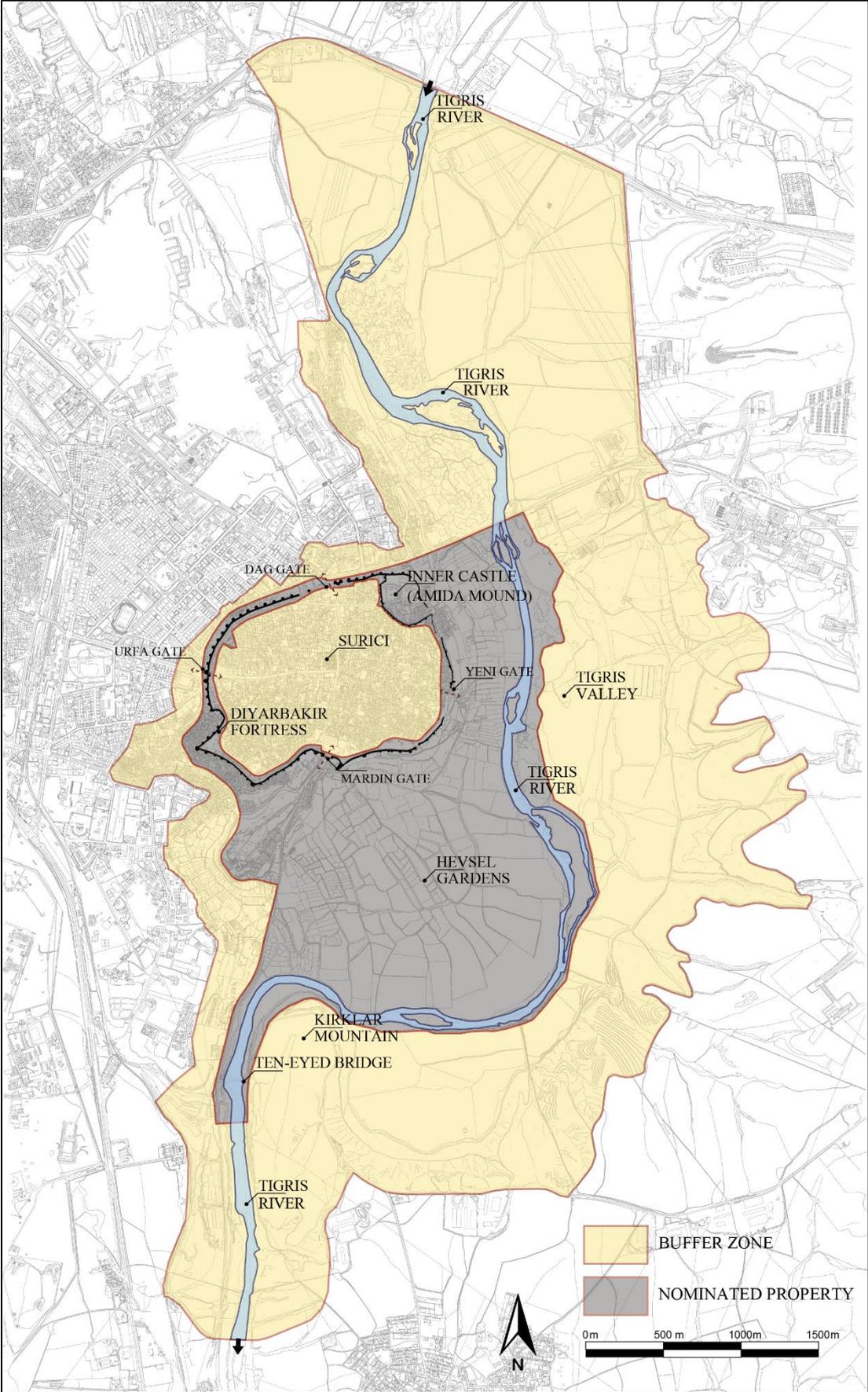


Source: Drawn by the author

The WHS has six components (Turkey (State Party) 2014): Amida Mound, City Walls, Hevsel Gardens, Ten-Eyed Bridge, Tigris Valley, and natural resources (Figure 11). The detailed description for each of the components are given subsequently.

³ South-eastern Anatolia Region is one of the seven geographical regions in Turkey.

Figure 11: World Heritage Site and its buffer zones



Source: Adapted map from Nomination Dossier (Turkey (State Party) 2014, p.641)

5.1.1. Amida Mound

Figure 12: Aerial view of the Inner Castle from the north



Source: <http://www.hurriyetdailynews.com/water-channel-and-tunnel-in-heart-of-diyarbakir-138828>

The Amida Mound is an archaeological area within the Inner Castle, located on the northwest of the fortress, built on the Fiskaya cliff with 4 gates and 19 bastions (Turkey (State Party) 2014). The first settlement traces in the region are found there where all the civilizations which previously inhabited it based their control centre. The present situation finally took shape during the Ottoman period (Figure 17). It is on an area of approximately 700 m². The length of the inner castle walls is 600 m. The gates called Fetih and Ogrun are opened to the outside of the inner castle respectively to the north and to the east while the gates called Saray and K peli are opened to the southern part of the fortified city (Figure 18). The Inner Castle comprises other cultural properties: the prison, the courthouse, the museum, Saint George Church, Aslani Fountain, Prophet Suleiman Nasiriye Mosque and the Arch which are located at the entrance of Inner Castle, dating from the Artuqid period (Figure 13, Figure 14, Figure 15, Figure 16).

Figure 13: The Courthouse and The Arch



Figure 14: The Prison



Figure 15: Prophet Suleiman Nasiriye Mosque

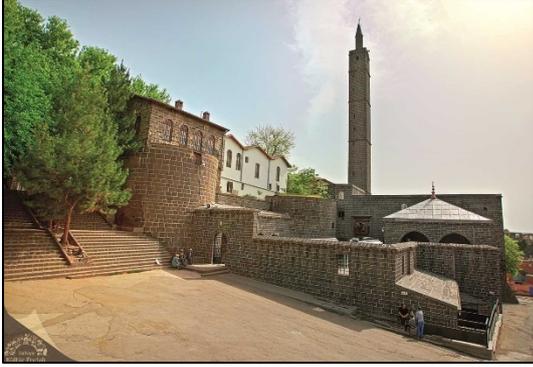
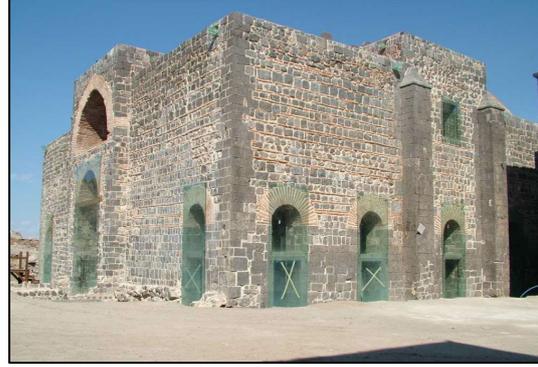
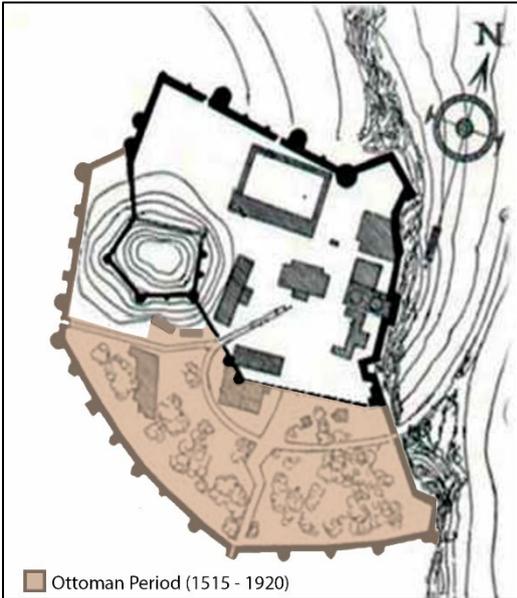


Figure 16: Saint George Church



Source for the photos of the monuments in Inner Castle: <https://kulturportali.gov.tr/turkiye/>

Figure 17: Inner Castle Map

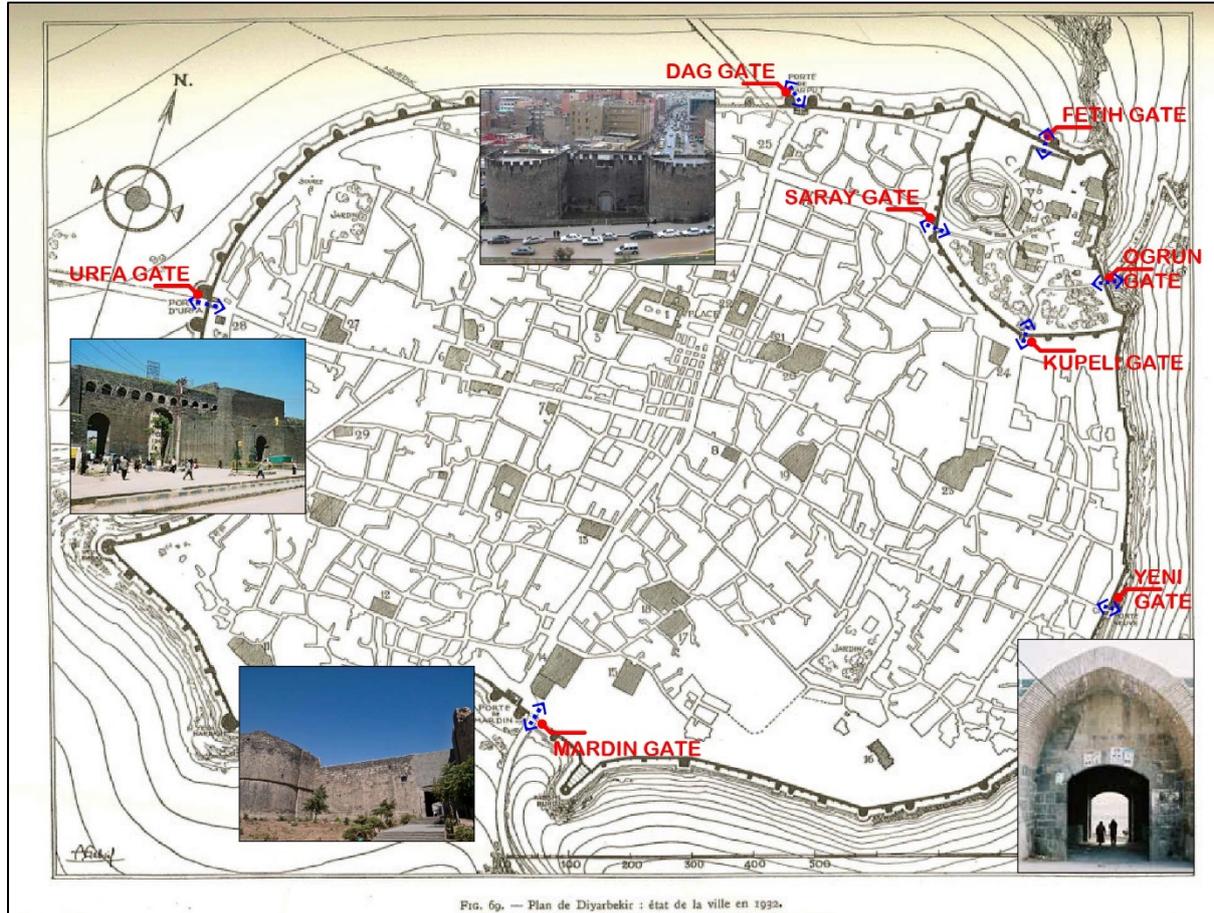


Source: Adapted map by Albert Gabriel from Nomination Dossier (Turkey (State Party) 2014, p.32)

5.1.2. City Walls

The city walls, known as Outer Castle, are 5.2 km long and through their bastions retain an inner round path called “*chemin de ronde*” which is two meters wide (Turkey (State Party) 2014) (Figure 19). 82 towers (square, circular and polygonal) with widths between 5 and 12 meters are located across the city walls. The main materials of the city walls and towers are local basalt, limestone, and brick (Dalkılıç and Nabikoğlu 2012). The steep artificial slopes around the fortress have an ‘antique quarry’ status. From the 23 inscriptions within the city walls, six of them belong to Byzantine period, four to the Greek, one to the Latin and rest of them to the Syriac and Islamic periods.

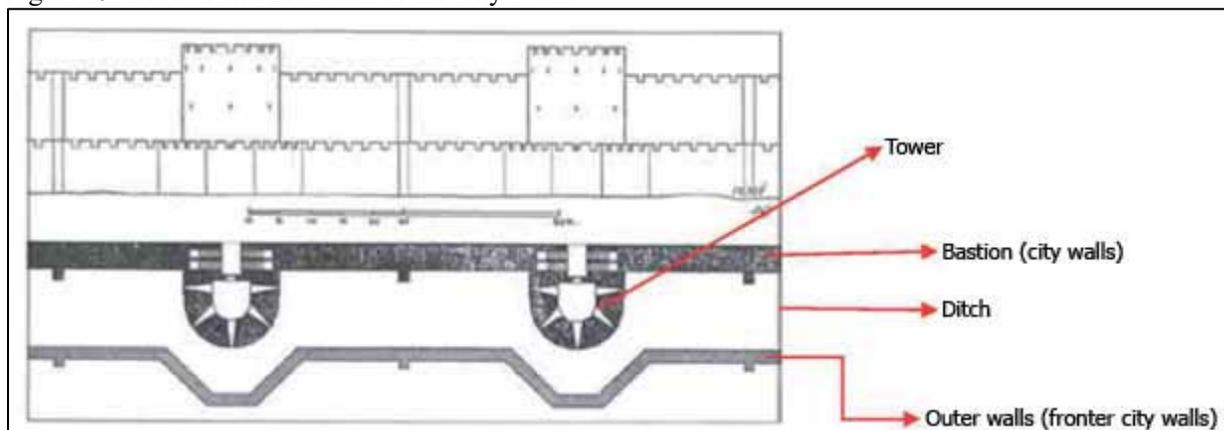
Figure 18: Gates of Diyarbakir Fortress and Inner Castle



Source: Adapted map from Albert Gabriel – Map of Diyarbakir Fortress, 1932

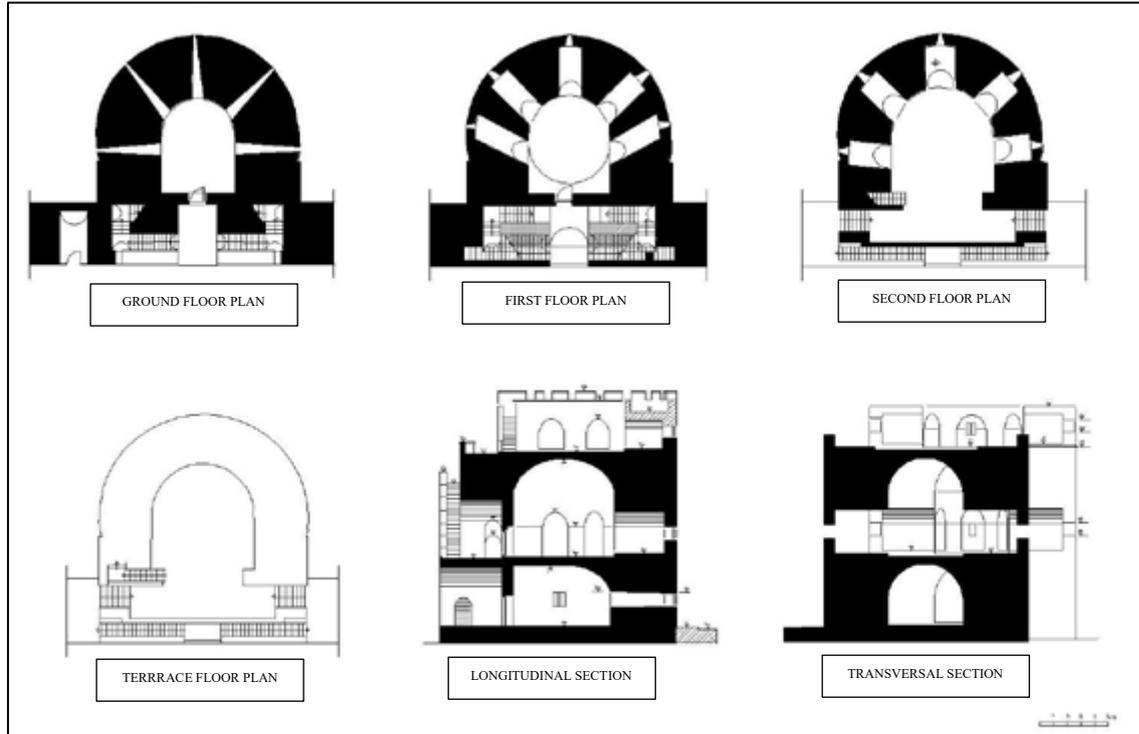
There are four gates opening to the outer city: Dag (Mountain) Gate to the north, Urfa Gate to the west, Mardin Gate to the south and Yeni (New) Gate to the east (Figure 18). Bastions are built in three or four storeys with the first two enclosed and used for storage or military purposes. Upper levels are built as terraces and have a wider surface area (Dalkılıç and Nabikoğlu 2012) (Figure 20).

Figure 19: Section and Elevation of the City Walls



Source: Nomination Dossier, drawn by Albert Gabriel (Turkey (State Party) 2014, p.40)

Figure 20: Floor plans and sections of a circular bastion



Source: The architectural features of the Diyarbakir city walls (Dalkılıç and Nabikoğlu 2012, p.179)

5.1.3. Hevsel Gardens

Mardin Gate on the south and Yeni Gate on the east open to the Hevsel Gardens which are both agricultural lands and cultural landscape covering an area of 400 hectares. Tigris River encloses Hevsel Gardens on the east and south (Figure 22). Around 100 – 150 hectares of the gardens are covered with poplar wood, and 250 hectares are utilized for agriculture producing various fruits and vegetables. Hevsel Gardens host approximately 189 bird species and many endemic plant and animal species (ICOMOS 2015).

Figure 21: Aerial view of the city walls and Surici Area



Source: <https://www.cekulvakfi.org.tr/haber/diyarbakir-surlari-ve-ickale-canlaniyor>

Figure 22: Hevsel Gardens from City Walls

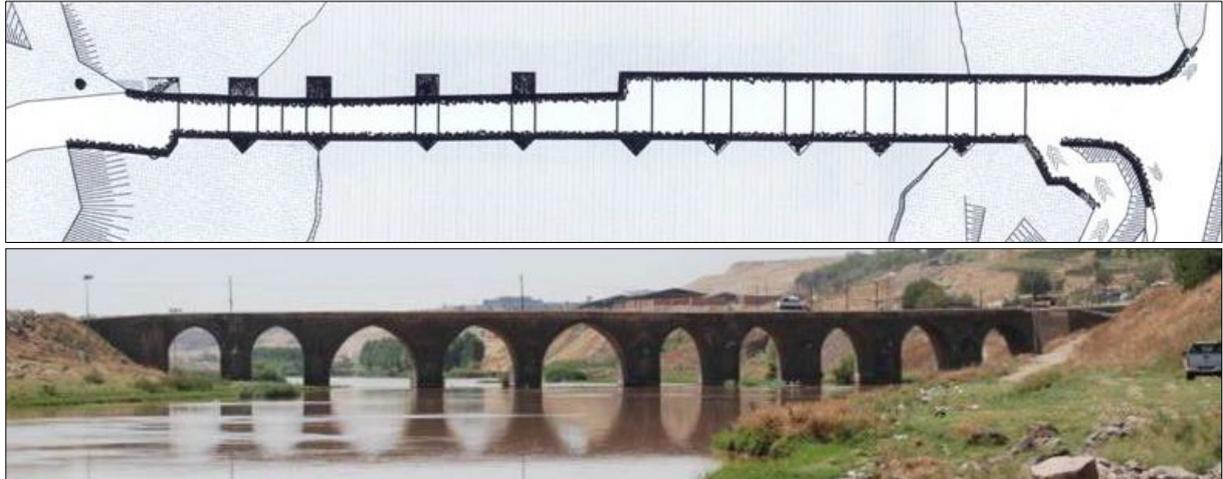


Source: Nevin Soyukaya, 2015, <https://books.openedition.org/ifeagd/1248#authors>

5.1.4. Ten-Eyed Bridge

Ten-Eyed Bridge is located at the outskirts of Kirkklar Mountain and on the southern border of the nominated property and Hevsel Gardens after its ten arches. Its length is 172 meters and its width changes between approximately 5 and 10 meters (Halifeoğlu et al. 2009).

Figure 23: Plan and view of Ten-Eyed Bridge



Source: The Measured Drawings, Restitution and Restoration Projects of Diyarbakir Tigris (Ten-Eyed) Bridge (Halifeoğlu et al. 2009, pp.139–140)

5.1.5. Tigris Valley and natural resources

The Tigris Valley is located on the east side of the city and composed of many different habitats like woodlands, meadows, and agricultural lands. The Hevsel gardens and many springs in the city form the natural resources of the area with the latter accommodating a great diversity of flora and ancestors of many important grains (Turkey (State Party) 2014).

5.2. Outstanding Universal Value of the WHS

The Outstanding Universal Value (OUV) of the heritage site as a cultural property is justified by ICOMOS according to the following reasons (ICOMOS 2015, p.276):

- Being an example of a frontier between the East and West due to its strategic location and fertile terrain;
- Reflecting remains of different civilizations in materials, construction techniques and multi-layered cultures of Mesopotamia;
- Being one of the most successful examples for the methods of combining water resources, fortresses, and cities in this region's civilizations.

UNESCO World Heritage Committee inscribed the property as a World Heritage Site in 2015 at 39th session of the World Heritage Committee in Bonn, Germany based on the Criterion (iv) as Diyarbakir Fortress and Hevsel Gardens Cultural Landscape, Turkey (Decision 39 COM 8B.32). Criterion (iv) is defined by UNESCO as “an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history” (UNESCO 2019, p.25). For the justification of the Criterion (iv), in the inscription decision UNESCO WHC stated that:

“The rare and impressive Diyarbakir Fortress and the associated Hevsel Gardens, illustrate a number of significant historical periods within this region from the Roman period until the present through its extensive masonry city walls and gates (including many repairs and additions), inscriptions, gardens/fields and the landscape setting in relation to the Tigris River.” (Decision 39 COM 8B.32)

5.3. Site Management Plan Preparation Process

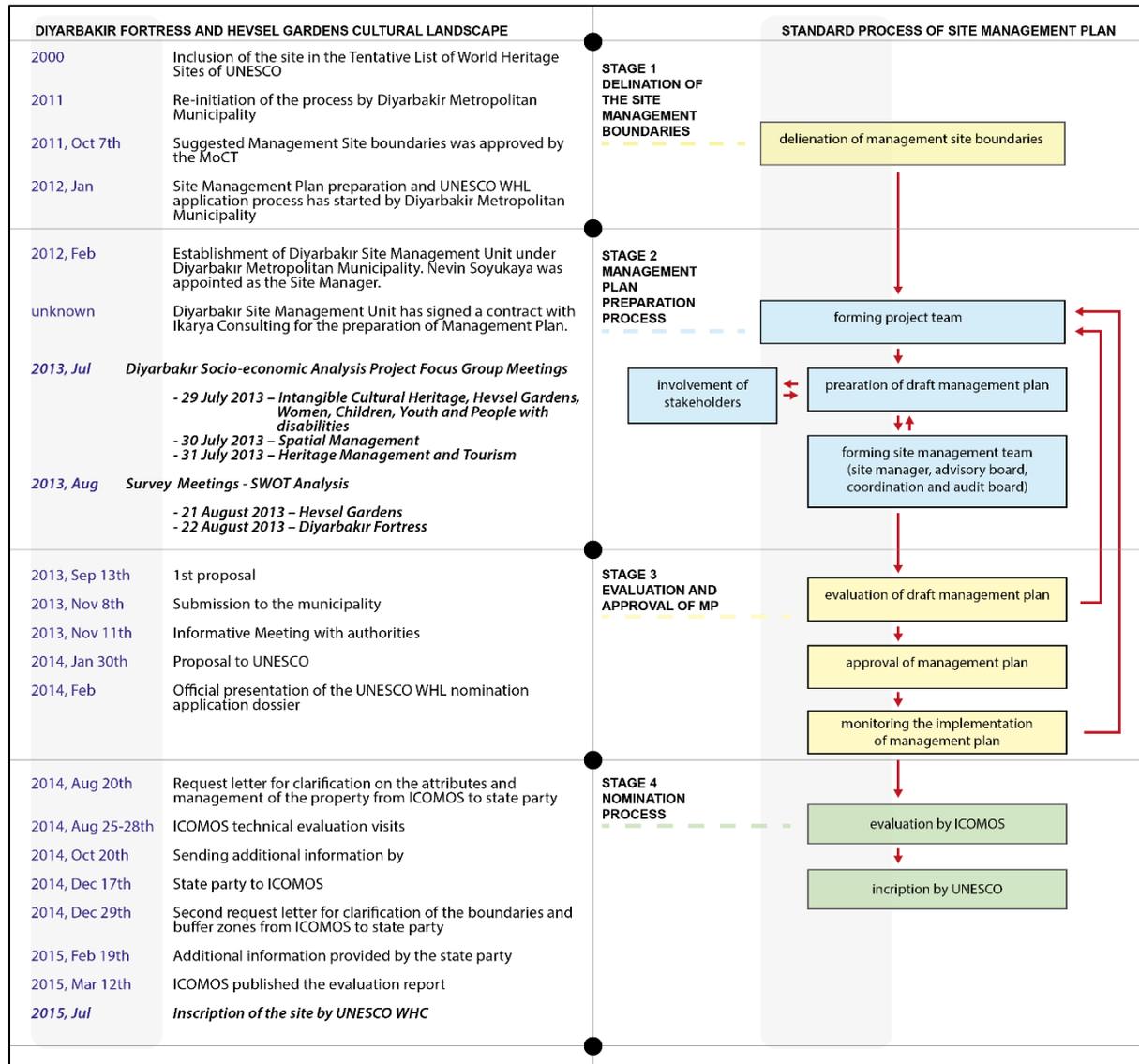
The legislative framework for the process of site management plan preparation was explained in Chapter 2 (2.2.2. The Principles of Site Management) as it is stated in the Site Management Regulation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005). The regulation stresses two main points about the planning team and the participatory approach to be taken:

- (i) The planning team shall comprise experts and consultants from professions regarding the characteristics of the site and shall work in coordination with the site manager.
- (ii) During the process, the team shall organize at least two meetings with related stakeholders such as public organizations, local communities, professional chambers, universities, etc. both to inform and to consult on the issues that form the dataset for the management plan (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.7).

Based on this legislative framework, the timeline for every heritage site planning process is unique and will vary according to the different features of each area. As illustrated in Chapter 2, Figure 3, the Site Management Process comprises three main stages (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005). In the first stage, every site follows a similar path: the delineation of management plan boundaries. The second stage is the most contextual one and it immensely relies on the approach that the planning team has taken in relation to how community participation will happen. The main differences in the second stage are based on the number of and timeline for community meetings, the structure of focus groups and the tendering process. In the third stage, the draft management plan is evaluated and approved as the management plan monitoring its implementation. However, for WHS in addition to these three stages, a fourth stage is added for the nomination process (Figure 24). The length of the third and fourth stages slightly differs due to the length of bureaucratic evaluation processes undertaken by MoCT, ICOMOS or IUCN, and UNESCO WHC.

In the plan preparation timeline of Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS, firstly, the Ministry of Culture and Tourism started the nomination process in 2000 with the application to UNESCO WHC. After the site boundaries are delineated, the municipality established the Diyarbakir Site Management Unit, and appointed a site manager, Nevin Soyukaya, an archaeologist and researcher born in Diyarbakir. The Site Management Unit signed a contract with Ikarya Consulting which is a private consultancy company, whose planning team prepared the site management plan of the WHS nomination.

Figure 24: Timeline of the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape Site Management



Source: Produced by the author

The community is involved in the process before the plan preparation starts after the delination of the site boundaries by the Diyarbakir Metropolitan Municipality. However, their inclusion to the definition of OUV or the vision statement was not explicitly stated in the management process (Ikarya Consulting 2015). Community engagement took place at two levels:

- (i) focus group meetings,
- (ii) survey meetings (Figure 24).

Focus group meetings were coordinated by the Diyarbakir Metropolitan Municipality and the Karacadag Development Agency as a part of a research project on the social and economic situation of the area, namely 'Diyarbakir Surici Socio-economic Analysis Project'. Focus groups were identified based on the types of stakeholders which were (i) local community namely women, children, youth, people with disabilities, Hevsel Gardens' users, and (ii) authorities working on spatial planning, heritage management, intangible cultural heritage. 8 meetings were held with them within three days. At a later stage, the planning team

organised two community meetings called ‘Survey Meetings’ to collate the opinions from NGOs, local associations, professional chambers, and representatives from institutions. The first one was organised in the Hevsel Gardens and Tigris Valley area, and the second one took place in the Diyarbakir Fortress and Surici Area as consultations to finalize the draft of the site management plan.

The former meetings (i) were documented in collaboration with the site management planning team and the Karacadag Development Agency as the ‘Diyarbakir Surici Socio-economic Analysis Report’ to share the meeting minutes with the public. The latter (ii) was designed to inform a SWOT analysis used in the development of the management plan. Outcomes of it are presented in the management plan as a single summary table however it lacks detail and information related to stakeholder’s participation.

Focus group meetings aimed to disclose and discuss, with community stakeholders, issues and needs of the area. Three of them are related to (i) heritage management; (ii) spatial management; and (iii) intangible cultural heritage; while other five of them are related particularly to the needs of specific local groups: (iv) Hevsel Gardens' users; (v) women; (vi) children; (vii) youth; and (viii) people with disabilities. Table 8 shows an extract of area of interests represented in each focus group.

Table 8: Focus groups and their area of interest

Focus Group and its acronym	Area of interest
Heritage Management (HM)	Institutional structure of the heritage management based on its preservation, economic development, and institutional capacity of competent authorities
Spatial Management (SM)	Spatial structure of the area, urbanisation, conservation, infrastructure and built environment quality of the heritage area and its surrounding
Intangible Cultural Heritage (ICH)	Detection, documentation, and protection of intangible cultural heritage
Hevsel Gardens' users (HG)	Agricultural structure of Hevsel Gardens, its management, production and marketing problems, importance of agriculture for local communities
Women (W)	Problems, women face in terms of education, health, recreation, culture, and safety
Children (C)	Access to social services and education, safety and drug addiction risks, children employment, issues within families
Youth (Y)	Education, social services, social quality of life, relationships with family and society, drug addiction risks
People with Disabilities (D)	Position in society, accessibility to public facilities, rehabilitation, and social services

Participants included a comprehensive list of stakeholders: public authorities (municipalities, etc.), NGOs, development agencies, universities, and different types of chambers, associations, and foundations. Community focus groups were classified into three categories covering three different scales and types: (i) Local level, non-profit organizations, (ii) City level, the departments of the Diyarbakir Metropolitan Municipality (DMM), and (iii) Central level, organizations working on the South-eastern Anatolia Region, representatives of the central government and academic and professional representatives (Table 9).

Table 9: Community Focus Groups and Participants Matrix

		Attendees		
		Local Level	City Level	Central Level
Community Focus groups	Women (W)	<ul style="list-style-type: none"> • AÇEV – Mother Child Education Foundation • Ceren Women Association • Sarmasik Association • EPI-DEM – Women Education and Counselling Centre • KADEM – Woman and Democracy Association 	<ul style="list-style-type: none"> • DMM Local Agenda 21 – Women Council • DMM Local Agenda 21 – City Council 	<ul style="list-style-type: none"> • CATOM – Multi-purpose Community Centre • GABB – South-eastern Anatolia Municipalities Association
	Children (C)	<ul style="list-style-type: none"> • GIYAV – Migration and Humanitarian Assistance Foundation • Umut Isigi Woman Cooperative 	<ul style="list-style-type: none"> • DMM Laundry Houses • DMM Local Agenda 21 – City Council • DMM Children Services Directorate 	<ul style="list-style-type: none"> • CATOM – Multi-purpose Community Centre • GABB – South-eastern Anatolia Municipalities Association
	People with Disabilities (D)	<ul style="list-style-type: none"> • Physically Disabled Association • Visually Impaired Sports School Association 	<ul style="list-style-type: none"> • DMM Local Agenda 21 – Disabled Council • DMM Social Services Directorate 	• —
	Youth (Y)	<ul style="list-style-type: none"> • MEGAM-DER – Mesopotamia Youth Research Centre Association 	<ul style="list-style-type: none"> • DMM Local Agenda 21 – Youth Council • DMM Site Management Unit 	• —
	Hevesel Gardens' users (HG)	<ul style="list-style-type: none"> • Farmers • Sarmasik Association 	<ul style="list-style-type: none"> • DMM Public Health and Veterinary Directorate • DMM Technical Services Directorate 	<ul style="list-style-type: none"> • Regional Council of Conservation of Cultural Assets • DPD of Agriculture and Forestry • Dicle University, Faculty of Agriculture • Chamber of Architects Diyarbakir Branch

Local level foundations or associations are non-profit organizations and mainly aim for local people to improve their life conditions. Lately, some of them were dissolved by the *Turkish Government under the state of emergency regime* due to their relation to some specific organizations which were seen as harmful to the government and society (Kivilcim 2018). These associations were stated as “*currently closed*” in the description below and coloured in grey in the Table 9. At the city level, DMM departments included directorates and councils working under Local Agenda 21. Central level organizations or institutions comprised organizations working on the South-eastern Anatolia Region for example South-eastern Anatolia Municipalities Association, Multi-purpose Community Centre, and representatives of central government e.g., Regional Council of Conservation of Cultural Assets, DPD of Agriculture and Forestry, plus academic and professional representatives like Tigris University, Faculty of Agriculture and Chamber of Architects Diyarbakir Branch.

(i) Local level included the following:

- **AÇEV – Mother Child Education Foundation** works on quality education in early childhood, gender equality, the family’s role in raising the next generation, and life-long learning in Turkey but in this document, it represents the Diyarbakir (local) branch of the foundation.

- **Ceren Women Association** worked on women issues such as education, work, and family, but is currently dissolved.
- **Sarmasik Association** worked on poverty, solidarity, and disadvantaged groups to improve life conditions in society, but it is currently dissolved.
- **EPI-DEM – Women Education and Counselling Centre** helps women who potentially attempt suicide and supports them with psychologists and sociologists. It is not known whether this association is still in action.
- **KADEM – Woman and Democracy Association** works on equity and women's rights at a national level and has a local branch in Diyarbakir.
- **GIYAV – Migration and Humanitarian Assistance Foundation** works on women and children affected by migration as well as research and awareness raising in ecology.
- **Umut Isigi Woman Cooperative** worked to improve social, cultural, and economic life quality for disadvantaged groups, especially women and children. It was dissolved in 2016 due to its relation to specific harmful groups but reopened under the name of `Rengarenk Umutlar Association` in 2018.
- **Physically Disabled Association** works to improve the built environment conditions in order to create a disable friendly environment in Diyarbakir.
- **Visually Impaired Sports Club Association** promotes sportive activities for people with disabilities and participating and providing opportunities for them to get involve in sports.
- **MEGAM-DER – Mesopotamia Youth Research Centre Association** aimed to organize cultural and educational activities for young people in the city to raise a general awareness for the youth and is also currently dissolved.

(ii) City level includes the following:

- **DMM Local Agenda 21 – Women Council, City Council, Disabled Council, Youth Council** is founded as a part of larger project of Local Agenda 21 (LA21) which *`is a voluntary process of local community consultation with the aim to create local policies and programs that work towards achieving sustainable development. Local Agenda 21 encompasses awareness raising, capacity building, community participation and the formation of partnerships.`* (UN, Agenda 21, Rio).
- **DMM Laundry Houses** provides free laundry facilities for poor families or for those who cannot afford them and is run by the Diyarbakir Metropolitan Municipality.
- **DMM Children Services Directorate** supports residents between the age of 0 and 18 in both physical and psychological health, social and cultural growth, helps them to obtain skills regarding their interests and provides vocational certificate programs to keep them socially active members of the society.

- **DMM Social Services Directorate** provides services to the elderly, people with disabilities, women, youth, and children, supporting them with educational, social, sportive, and rehabilitative activities, also helping disadvantaged people to get access to housing schemes.
- **DMM Site Management Unit** is the responsible department of the Diyarbakir Metropolitan Municipality to prepare and monitor the site management plan for the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape World Heritage Site.
- **DMM Public Health and Veterinary Directorate** works on veterinary, food inspection and disinfection issues in the city as well as public health.
- **DMM Technical Services Directorate** implements the decisions related to the infrastructure taken by the Diyarbakir Metropolitan Municipality.

(iii) Central level includes the following:

- **GABB – South-eastern Anatolia Municipalities Association** is a regional administrative association of municipalities working in south-eastern Anatolia.
- **CATOM – Multi-purpose Community Centre** is GABB’s multi-purpose community centre project which provides opportunities and improves life conditions of girls and women in the South-eastern Anatolia Region.
- **Regional Council of Conservation of Cultural Assets** works on the cultural heritage of the region.
- **DPD of Agriculture and Forestry** is the Diyarbakir branch of Ministry of Agriculture and Forestry.
- **Tigris University Agriculture Faculty** aims *‘to contribute to the agriculture of the region and the agriculture of the country in general’* (Tigris University 2018).
- **Chamber of Architects Diyarbakir Branch** is a Turkish professional chamber and aims *‘to engage in all kinds of activities in cooperation with institutions to develop the profession both practically and theoretically, thus scrutinizing scientific and technical documents to fulfil the necessary professional supervision* (Chamber of Architects of Turkey [no date]).

5.4. Site Management Plan

Management plans are prepared to achieve an effective management of world heritage sites and are requested by UNESCO without clear prescriptions of their content. In Turkey, the Regulation for the Site Management (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005) states the specific content of management plans should include:

- (i) a diagnosis of the current situation,
- (ii) site analysis,
- (iii) vision and policy statements for the site,
- (iv) an itinerary, timeline, and project design,
- (v) monitoring and assessment processes.

As part of project design, a management plan should include themes, actions, responsible actors, financial resources, and deadlines (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.9) (Table 10).

Table 10: Exemplary project table of a management plan as shown in the Regulations

Themes	Action to take	Responsible Actor	Finance Resources	Deadline
Theme 1				
Theme 2				
Theme 3				

Every management plan has themes defined by the planning team based on community inputs throughout the process appropriate to the needs, interests, and contextual situation of the site. For each theme, there should be clearly defined actions with corresponding responsible actors. Financial resources should be allocated, and deadlines should be stated (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.9).

The content of the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS Management Plan comprises therefore, a diagnosis of current situation (SWOT table), a vision, an analysis of the site management plan area, an itinerary, a timeline, and a full project design including themes, goals, strategies, actions, and implementation with their corresponding monitoring and assessment plans.

5.4.1. Vision and Analysis of the site management plan area

The vision statement for the WHS was developed based on the technical analysis of the site and the outputs of the community engagement activities and agreed as stated in the site management plan:

Managing with a participative and collaborative approach the outstanding universal values of the City Walls, Hevsel Gardens, and Tigris River, which ensured the survival of the historical and cultural heritage of Diyarbakir, the capital of various civilizations in Upper Mesopotamia, and by safeguarding, transmitting them to future generations.(Ikarya Consulting 2015, p.10)

The site management plan contains a description chapter for the nominated property and its buffer zones which are different then the components of the nominated property. Unlike the components of the WHS described in Section 5.1, the parts of the nominated property were delineated by the planning team with regards to their geographical location and similar features as after a diagnosis of the current situation.

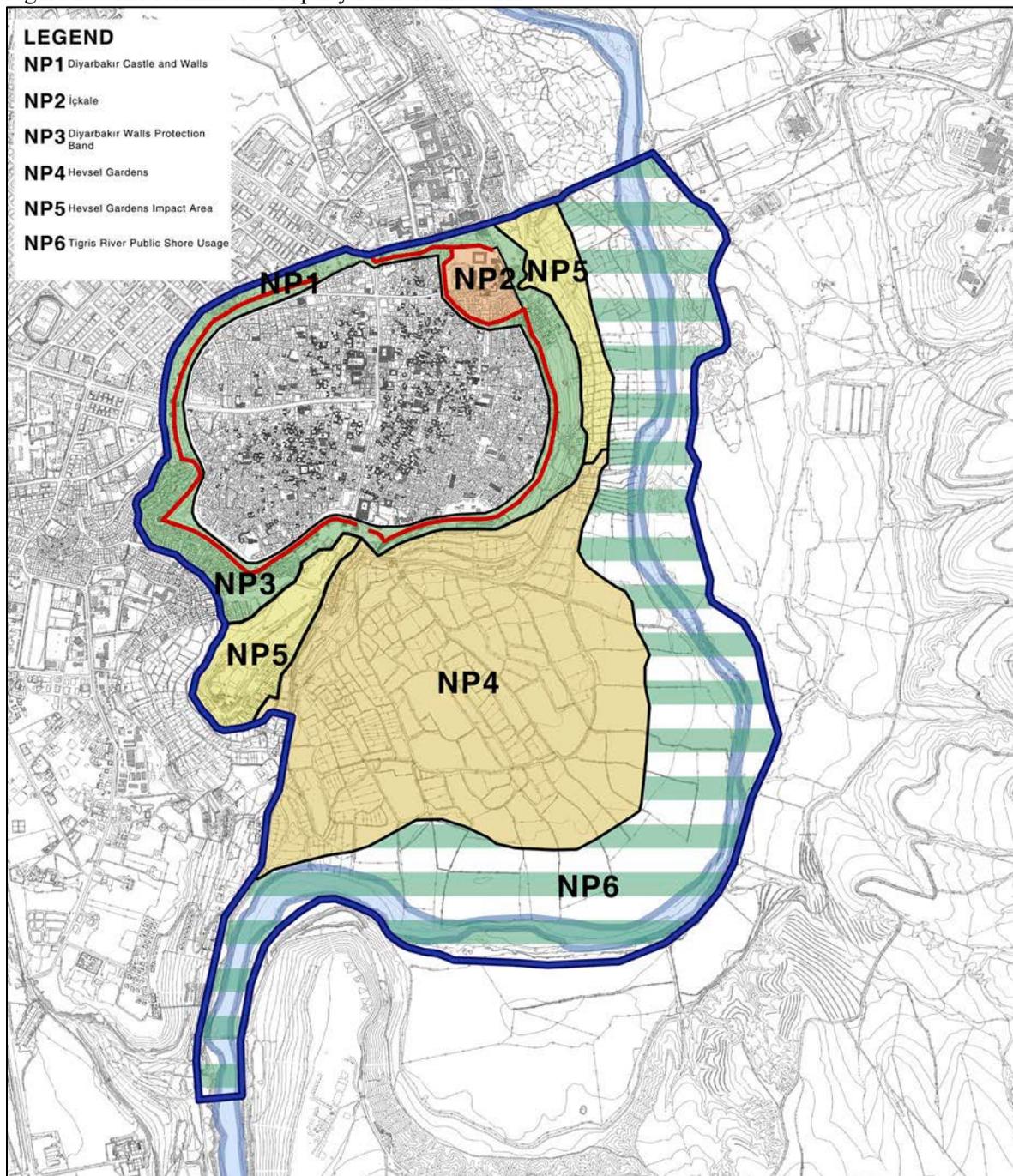
The planning team divided the WHS into six nominated property parts (Figure 25):

- NP1 - Diyarbakir Fortress and City Walls - refers to the structure of the city walls.
- NP2 - Inner Castle - is the archaeological inner castle area.
- NP3 - Diyarbakir City Walls Protection Band - is the front area of the city walls' facade towards the city.
- NP4 - Hevsel Gardens - refers to the Hevsel Gardens area.

- NP5 - Hevsel Gardens Impact Zone - represents the zone impacted by Hevsel Gardens agricultural activities.
- NP6 - Tigris River Shoreline Public Area - refers to the shoreline of Tigris River open to the public.

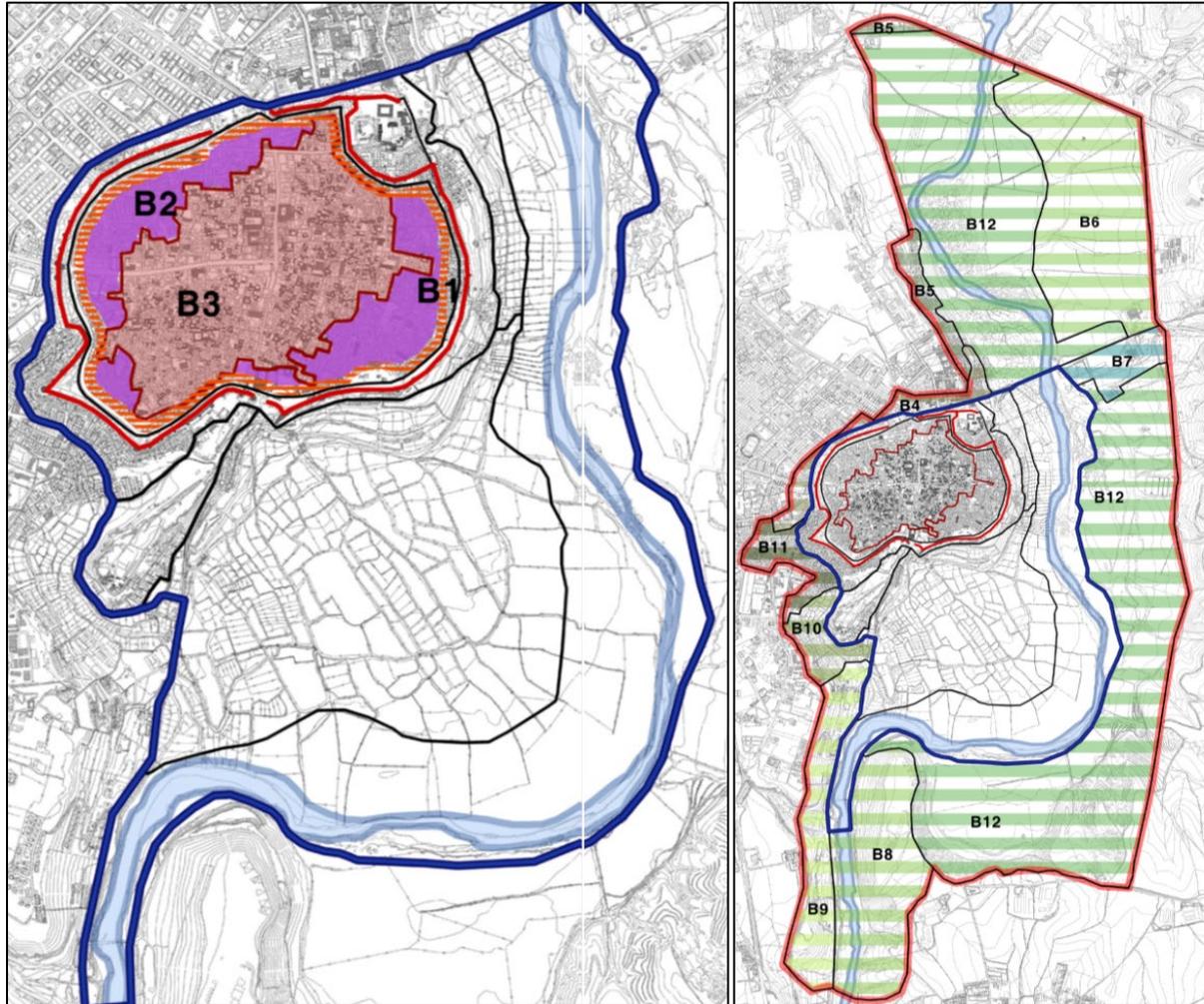
Besides the nominated properties, buffer zones of the WHS were defined in the management plan with regards to their various impacts on the heritage site. First three buffer zones are located within the city walls in the area called Surici, and the other nine buffer zones are adjacent areas surrounding the WHS outwardly (Figure 26).

Figure 25: The Nominated Property Parts of the WHS



Source: Diyarbakir Fortress and Hevsel Gardens Cultural Landscape Site Management Plan, (2015, p.12)

Figure 26: Buffer Zones of the WHS



Source: Diyarbakir Fortress and Hevsel Gardens Cultural Landscape Site Management Plan (2015, p.50,55)

The planning team designated 12 buffer zones (Figure 26), three of them are inside the city walls:

- B1 - Surici Frontal Facade - facing the city walls, shown in orange colour in Figure 26.
- B2 - Area adaptive to Traditional Urban Fabric - dilapidated due to transformation projects shown in purple colour in Figure 26.
- B3 - Surici Historic Cultural Heritage Zone – hosting many monumental heritage structures shown in brown colour in Figure 26.

The buffer zones located outside of the city walls and surrounding the Hevsel Gardens are (Figure 26):

- B4 - The City Wall's Frontal Facade
- B5 - Feritkösk Area
- B6 - Tigris River East Agricultural Areas
- B7 - Dicle University Area
- B8 - Tigris River Public Shoreline
- B9 - The Mansions Area
- B10 - Hevsel Gardens Impact Zone
- B11 - Ben U Sen
- B12 - The Nature Park

Buffer Zone 4 (B4) refers to the dense urban area facing the north of the city walls. This area is the first settlement area of the city that had grown to the outside of the walls in 1930s. Buffer Zone 5 (B5) is the Feritkösk Area which forms an irregular residential area and is defined as a regeneration area by the central government (Figure 27). The zone also includes a new residential development area in the north of Tigris Valley, along Silvan Road.

Figure 27: Feritkosk Area

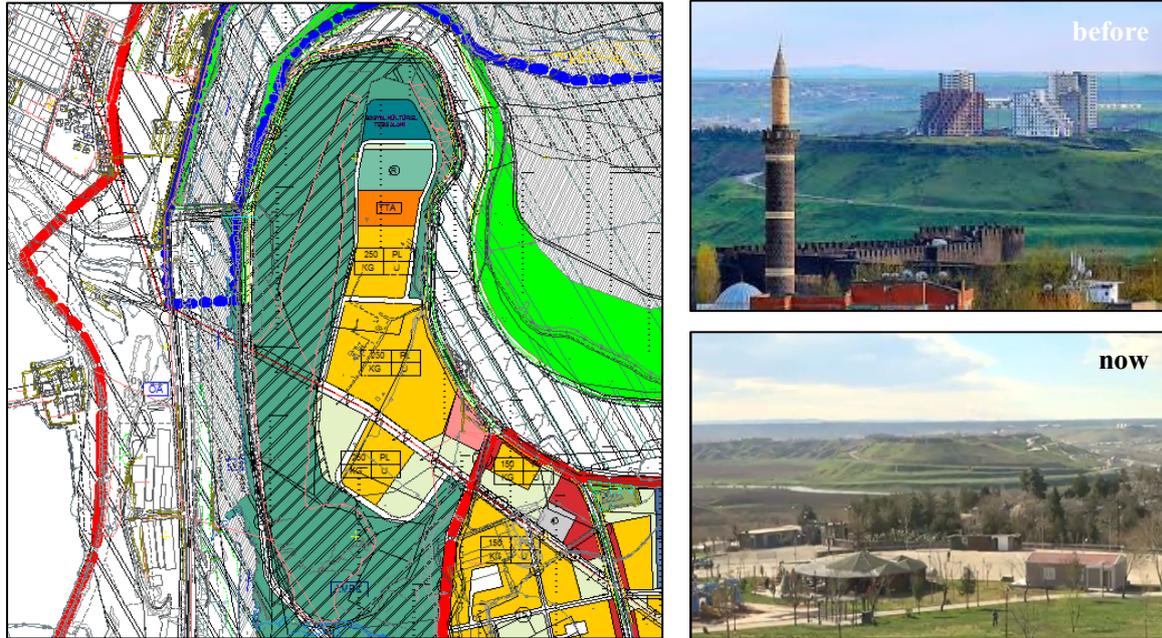


Source: M. Ali Azizoğlu, 2015, <https://goo.gl/maps/9641k5uzLGEEemQkW7>

Buffer Zone 6 (B6) Tigris River East Agricultural Areas covers the agricultural areas on the east side of Tigris Valley. These agricultural fields are owned by Dicle University who is expected to showcase them as an agricultural model for the Hevsel Gardens. Buffer Zone 7 (B7) belongs to the Dicle University and accommodates university buildings and the university hospital.

Buffer Zone 8 (B8) is in the south of the heritage site and is the ‘Tigris River Public Shoreline’ subjected to many projects due to its location and use. The area is divided into two by the Tigris River, but it is considered as a unique entity due to its natural structure; valley, hillsides, ponds, reeds, and marshlands. The Kirkklar Mountain development area is located on the north of this zone, and it was criticised by its negative effects on the silhouette of the Hevsel Gardens and Diyarbakir Fortress due to the continuing high-rise developments (Figure 28). The development project is approved by Sur Municipality in December 2010 and its construction started in 2011 (Sütlaş 2011). After the criticisms, 6 years later, Diyarbakir Metropolitan Municipality demolished the housing development (Kamer 2017). The General Directorate of State Hydraulic Works was planning to place water dams on Tigris River in this area to raise the water level and broaden the river surface. However, based on meetings between Site Management Unit, Diyarbakir Metropolitan Municipality, and the General Directorate of State Hydraulic Works, cancelling Hydroelectricity Station projects were being considered. The Ten-eyed bridge is located on the west side of this buffer zone.

Figure 28: Kirkklar Mountain Development Area Master Plan and Before/After pictures



Source of map: Diyarbakir Fortress and Hevsel Gardens Cultural Landscape Management Plan, (2015, p.60)
 Source of pictures: Cumali Atilla, 2017, <https://twitter.com/cumaliatilla21/status/946653370722512896>

Buffer Zone 9 (B9), The Mansions Area, originally summer residences, have been utilised as an amenities area promoting intensive recreational use. The summer residences were built in harmony with the climate and surrounding nature in a particular architectural style (Figure 29).

Figure 29: Mansions Area – Erdebil Mansion



Source: <https://www.youtube.com/watch?v=xqqhd6hpGvM>

Buffer Zone 10 (B10), Hevsel Gardens Impact Zone, covers the agricultural fields which are the extension of the Hevsel Gardens cut from it by the Diyarbakir – Mardin highway even though the agricultural activity is maintained in both sides. Buffer Zone 11 (B11), Ben U Sen, is a neighbourhood built and inhabited by

immigrants who came to work in Diyarbakir between 1975 and 1985 (Özcanli et al. 2018) (Figure 30). The socio-economic situation in this neighbourhood is problematic regarding the quality of life. Residents are mainly low-wage workers or farmers who cannot afford to live in this area. The quality of built environment in the area is not appropriate for living and harms the image of the WHS according to the authorities and thus the community of Ben U Sen is in conflict with the local government.

Figure 30: Ben U Sen



(Source: <https://www.biletall.com/blog/diyarbakirda-gezilecek-yerler/>)

Buffer Zone 12 (B12), The Nature Park, covers an area of 620.4 hectares, and accommodates migratory birds, endangered species, and wildlife with its flora and fauna. The area is located along the Tigris River and owned by private and public entities, with a large part of it belonging to the Dicle University. There are some sand quarries in the area, with illegal hunting activities threatening wildlife.

5.4.2. Itinerary, Timeline and Project Design

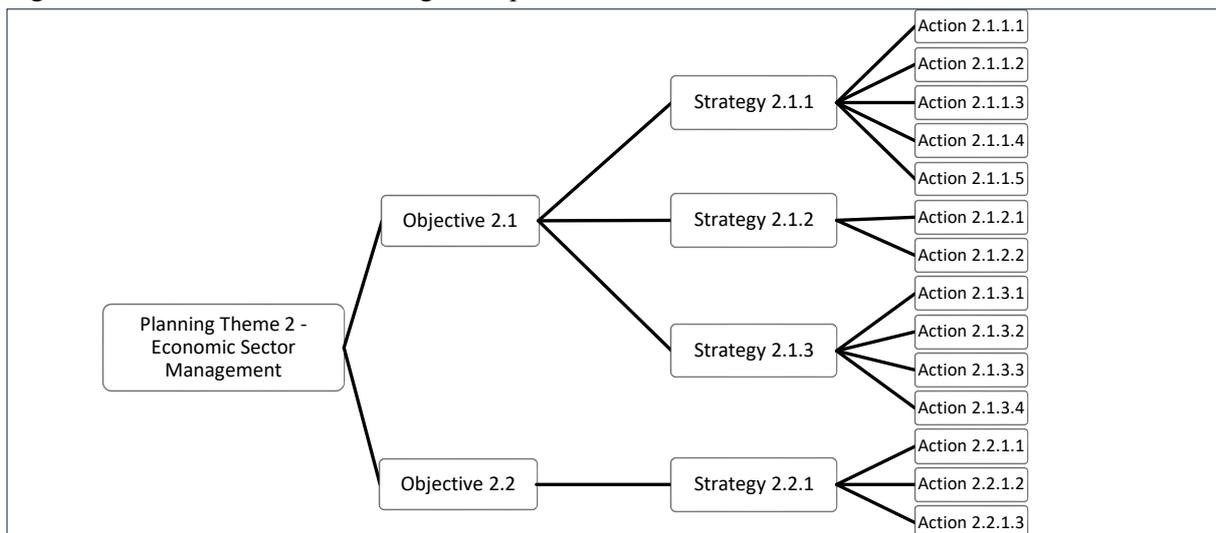
As stated in the regulation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005, para.9) each site management plan should have a project table consisting of planning themes and related actions (Table 10: Exemplary project table of a management plan as shown in the Regulation). The planning themes for the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape site management plan are stated in Table 11.

Table 11: Planning themes of the site management plan

Planning Themes	PT1 – Tangible and Intangible Cultural Heritage Conservation PT2 – Economic Sector Management PT3 – Risk Management PT4 – Visitor Management PT5 – Coordination and Management of the Spatial Planning Processes PT6 – Institutional Organization and Governance
-----------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The site management plan structure is presented in Figure 31, illustrating a part of the Planning Theme 2, with an illustration of its components, objectives with a set of strategies and a subsequent set of related actions. This site management plan contains 6 planning themes, 19 objectives, 47 strategies and 242 actions in total.

Figure 31: Structure of the site management plan



Each action has designated responsible actors, stakeholder actors, monitoring indicators, a budget, and a timeline for implementation (Figure 32). Responsible actors are the ones who are supposed to implement the related action by consulting stakeholder actors. Monitoring indicators are designated to track actions whether they are completed in time or not.

If there is an allocated budget in the table, it refers to the potential cost of the action. It does not mean necessarily that there is a funder for the action. If an action is stated as an activity under the budget column, it means its potential cost is not calculated by the planning team. Actions with an allocated budget have a project sheet with further details containing explanations of the costs spread across their implementation timeline, target group for action/s, objectives, and basic activities for the action/s (Figure 33). In some cases, a set of actions might be designed as one project and a total budget might be allocated for them. For example, in Figure 32, second and third actions have a total budget of 1.950.000 TRY allocated to both and a budget explanation is given on the project sheet for these two actions clustering them as a unique project (Figure 33). However, if the budget column states that an action is an activity, i.e., Figure 32 first action, then there is not a project sheet dedicated to this specific action and no budget is allocated for the potential costs of the action.

Figure 32: Illustrative project table from the management plan

	ACTIONS	RESPONSIBLE AGENCIES AND INSTITUTIONS	STAKEHOLDER AGENCIES AND INSTITUTIONS	MONITORING MEASURES AND INDICATORS	BUDGET	MULTI YEAR PLAN				
						1	2	3	4	5
PT2 Strategy 1.3 Spreading environment-friendly agricultural practices	Conducting soil analysis to determine the optimal input usage amount and type, and informing the producers	Dicle University Faculty of Agricultural, Food Agriculture and Livestock Ministry Diyarbakir Provincial Directorate	TMMOB Chamber of Agricultural Engineers, NGOs, Dicle University Environmental Issues Implementation and Research Center, Diyarbakir Branch, TZOB Diyarbakir Chamber of Agriculture	Soil analysis reports Number of producers to whom the reports have reached	Activity					
	Having drip and sprinkling irrigation systems to become widespread	State Hydrolic Works General Directorate 10. District Directorate, Food Agriculture and Livestock Ministry Diyarbakir Provincial Directorate	Dicle University Environmental Issues Implementation and Research Center, Irrigation Cooperatives, Irrigation Unions, Diyarbakir Metropolitan Municipality Strategy Development Directorate, Union of Southeastern Anatolia Municipalities	Area on which drip and sprinkling irrigation system equipment are used Number of producers who have started using the drip and sprinkling irrigation systems						
	Establishing public application areas for the producers to accept and adopt environment friendly agricultural applications on a widespread scale	Food Agriculture and Livestock Ministry Diyarbakir Provincial Directorate, Dicle University Faculty of Agricultural, Diyarbakir Metropolitan Municipality Parks Gardens and Green Areas Directorate, Diyarbakir Metropolitan Municipality Construction and Urbanisation Directorate	Diyarbakir Metropolitan Municipality Strategy Development Directorate, TMMOB Agricultural Engineers Chamber Diyarbakir Branch, TZOB Diyarbakir Chamber of Agriculture, State Hydrolic works General Directorate 10. District Directorate	Size of the demonstrative agriculture area set up publicly Number of producers who have received environmental friendly agriculture training	1.950.000 TL					
	Carrying out written and visual promotion work for all stages and content – input amount and cost, labor cost, production stages, sales unit price and amount, sales channels etc. – of the agricultural production process in the public application areas	Food Agriculture and Livestock Ministry Diyarbakir Provincial Directorate, Metropolitan Municipality Park Parks and Green Areas Directorate	Diyarbakir Metropolitan Municipality Strategy Development Directorate, TMMOB Agricultural Engineers Chamber Diyarbakir Branch, TZOB Diyarbakir Chamber of Agriculture, Dicle University, State Hydrolic works General Directorate 10. District Directorate	Number of producers who have received environmental friendly agriculture training Number of information, documents and brochures prepared for environmental friendly agriculture applications	474.000 TL					

Figure 33: Project Sheet Example: Planning Theme 2 – Strategy 1.3 – Action 2/3/4

PT 2 - Strategy 1.3: Spreading environmental-friendly agricultural practices					
<p>Action 1.3.2: Having drip and sprinkling irrigation systems to become widespread.</p> <p>Action 1.3.3: Establishing public application areas for the producers to accept and adopt environment-friendly agricultural applications on a widespread scale.</p>					
PROJECT TAG	PT2/H1/S3/E2-3				
PROJECT TITLE	Rural Development Project for Generalisation of Eco-friendly Agricultural Irrigation and Eco-friendly Agricultural Activities				
OBJECTIVE	<p>The first important step for preventing loss of soil, water and crop due to wrong irrigation and agricultural activities in Hvesel Gardens, generalising eco-friendly agricultural irrigation and activities, as well as for encouraging producers to eco-friendly production is to inform producers and related institutions about eco-friendly agricultural activity, to tell them its advantages, and to show the positive effects of drip and sprinkle irrigation on agriculture and water resources. Then, the process will begin and develop thanks to provision of support and funds for transition to drip and sprinkle irrigation in Hvesel Gardens. Eco-friendly agricultural activities and irrigation is vital for the future of Hvesel Gardens. To that end, the objective of the project is to generalisation of eco-friendly agricultural irrigation and eco-friendly agricultural activities.</p>				
BASIC ACTIVITIES	<ul style="list-style-type: none"> Provision of trainings of awareness and conduct of information-awareness campaigns for generalisation of eco-friendly agricultural practices To ensure access by producers to best practices and transfer of practice experiences via meetings On-site observation of best practices by producers Generalisation of drip and sprinkle irrigation systems 				
TARGET GROUP	Hvesel producers, institutions, and NGOs in relation with agricultural activities within Management Plan Area				
AUTHORISED INSTITUTIONS AND ORGANISATIONS	<p>State Hydraulic Works (DSI) Region 10, Diyarbakir Provincial Directorate of Ministry of Food, Agriculture and Livestock, Dicle University Faculty of Agriculture, Diyarbakir Metropolitan Municipality Department of Parks, Gardens and Recreations, Diyarbakir Metropolitan Municipality Department of Urban Development and Planning, Diyarbakir Provincial Directorate of Ministry of Food, Agriculture and Livestock</p>				
SHARING INSTITUTIONS AND ORGANISATIONS	<p>Dicle University Research and Application Centre for Environmental Problems, Irrigation Cooperatives, Irrigation Associations, Diyarbakir Metropolitan Municipality Strategy Development Branch, Union of Southeast Anatolian Municipalities, Diyarbakir Metropolitan Municipality Strategy Development Branch, TMMOB Chamber of Agricultural Engineers Diyarbakir Branch, TZOB Diyarbakir Chamber of Agriculture, DSI 10th Regional Directorate</p>				
RESOURCE OF FUNDS	National-international fund resources				
TOTAL BUDGET	1.950.000 TL				
TERM	1 st YEAR	2 nd YEAR	3 rd YEAR	4 th YEAR	5 th YEAR
BUDGET DETAILS	<p>In the first year, awareness, information trainings, symposiums, visits, meetings, and campaigns for producers via written and visual press will be prepared for generalising eco-friendly agricultural practices and eco-friendly irrigation. The budget for first year regarding such awareness activities will be 250,000, while 200,000 TL will be allocated during next 2 years (100,000*2 years), with a total of 450,000 TL.</p> <p>In consideration of budgets of projects for supporting infrastructure investments of agricultural irrigation (Ministry of Food, Agriculture and Livestock, EU Grant Funds, Development Agency-Ministry of Development) (for example, see: Ministry of Food, Agriculture and Livestock, General Directorate of Agricultural Reform, EU Programme for Supporting Rural Development Investments: Pond Uzunhizirli Drip Irrigation Project), the budget for pilot scheme on generalisation of drip and sprinkle irrigation is decided as 500,000 TL. The scheme will be used during second and third years for generalisation of drip and sprinkle irrigations. For year 4 and 5, a total budget of 1,000,000 TL, is decided for eco-friendly agricultural practices, in consideration of same references.</p> <p>Total 1.950.000 TL.</p>				
PROJECT TAG	PT2/H1/S3/E4				
PROJECT TITLE	Promotion of Management Area and Hvesel Gardens agricultural production process via written and visual media				
OBJECTIVE	<p>The objective is to conduct visual and written promotion activities regarding each phase and content - input amount and costs, labour costs, production phases, sale unit price and amount, sales channel etc. - of agricultural production process in public practice areas in order to inform and orientate the producers.</p>				
BASIC ACTIVITIES	<ul style="list-style-type: none"> Comprehensible collection, summarisation and publication as report of input amount and costs, labour costs, production phases, sale unit price and amount, and sales channel data Visual design and typing-publication preparations of the report 				
TARGET GROUP	Hvesel producers, institutions, and NGOs in relation with agricultural activities within Management Plan Area				
AUTHORISED INSTITUTIONS AND ORGANISATIONS	Diyarbakir Provincial Directorate of Ministry of Food, Agriculture and Livestock, Metropolitan Municipality Department of Parks, Gardens and Recreations				
SHARING INSTITUTIONS AND ORGANISATIONS	Diyarbakir Metropolitan Municipality Strategy Development Branch, TMMOB Chamber of Agricultural Engineers Diyarbakir Branch, TZOB Diyarbakir Chamber of Agriculture, Dicle University, DSI 10th Regional Directorate				
RESOURCE OF FUNDS	National-international fund resources				
TOTAL BUDGET	474.000 TL				
TERM	1 st YEAR	2 nd YEAR	3 rd YEAR	4 th YEAR	5 th YEAR
BUDGET DETAILS	<p>Annual budget of 100,000*3=300,000 TL for training materials, reports and web portal applications (including input amount and costs, labour cost, production phases, sale unit price and amount, sales channel data) in order to inform producers about eco-friendly agricultural practices. 4000* two-month salary per year for 3 experts, namely, statistician, agricultural engineer, economist =24,000 TL. Preparation and design of training materials and images, of typing-publication, publication and distribution = annual 50,000*3 years=150,000 TL</p> <p>TOTAL: 474,000 TL.</p>				

5.4.3. Implementation, monitoring, and assessment

The last section of the site management plan comprises three parts:

- (i) a description of key actors of the plan,
- (ii) an implementation model for the plan, and
- (iii) an explanation for the monitoring and assessment processes.

Key actors are categorised as institutions, local authorities, non-governmental organisations, professional chambers, and universities. The implementation model explains the technical processes after the approval of the plan and emphasises the roles of the Site Manager, Advisory Board, Coordination and Audit Board, and Audit Unit defined in the site management regulation (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005), and adds two new actors namely, Education Board and Science Board. It suggests to the former to work on the educational issues of the area, and to the latter to act as an advisory committee for scientific research on heritage, environment, society, etc. Lastly, monitoring and assessment processes section explains step by step, from monitoring to reporting, yearly assessments and the roles of the boards in this process.

Chapter 6. The Qualitative Audit Method

Recognition and appreciation of community-held knowledge as part of heritage, enriches and increases the inclusiveness of its management process (MacKay and Johnston 2010). Safeguarding World Heritage Sites is only possible together with the close collaboration and buy-in from local communities.

The proposed method aims to gauge knowledge transfer from local communities to site management plans in World Heritage Sites and was developed based on the case study of the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS.

6.1. Data sources

Two main documents were analysed: (i) the Diyarbakir Surici Socio-economic Analysis Report, which documented the outcomes of the discussions from focus group meetings (see section 5.3. Site Management Plan Preparation Process, page 42), and (ii) the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS management plan submitted to UNESCO in 2014 (see section 5.4. Site Management Plan). The former, being the most important record of community participation in the heritage management process, includes issues raised in focus group meetings by a variety of stakeholders, expressing insiders' knowledge of the site and its context. The latter, is the official management plan of the WHS, prepared by a project team coordinated by a site manager, and contains actions to be implemented in the process of safeguarding the WHS.

Furthermore, the site management plan includes a SWOT table summarising the outputs of the Survey Meetings held with the community during the site management plan preparation process. In theory, community knowledge is embedded in this table, however, as it lacks detail regarding the stakeholder information participated in the survey meetings, the SWOT table was excluded from the dataset.

Since both documents are generic to the development of WHS application processes, they can be transferred to other contexts considering the following data sources will potentially always be available:

- (i) Reports from interactive meetings with the community – which show issues raised in community focus group meetings, and can be considered inputs of the participatory process, and
- (ii) Management plans containing actions with their respective implementers, consultants, monitoring indicators, beneficiaries, and budgets – produced based on a combination of technical analysis and interpretations of consultations with communities involved, and can be considered outputs or the product of this process.

6.2. The method

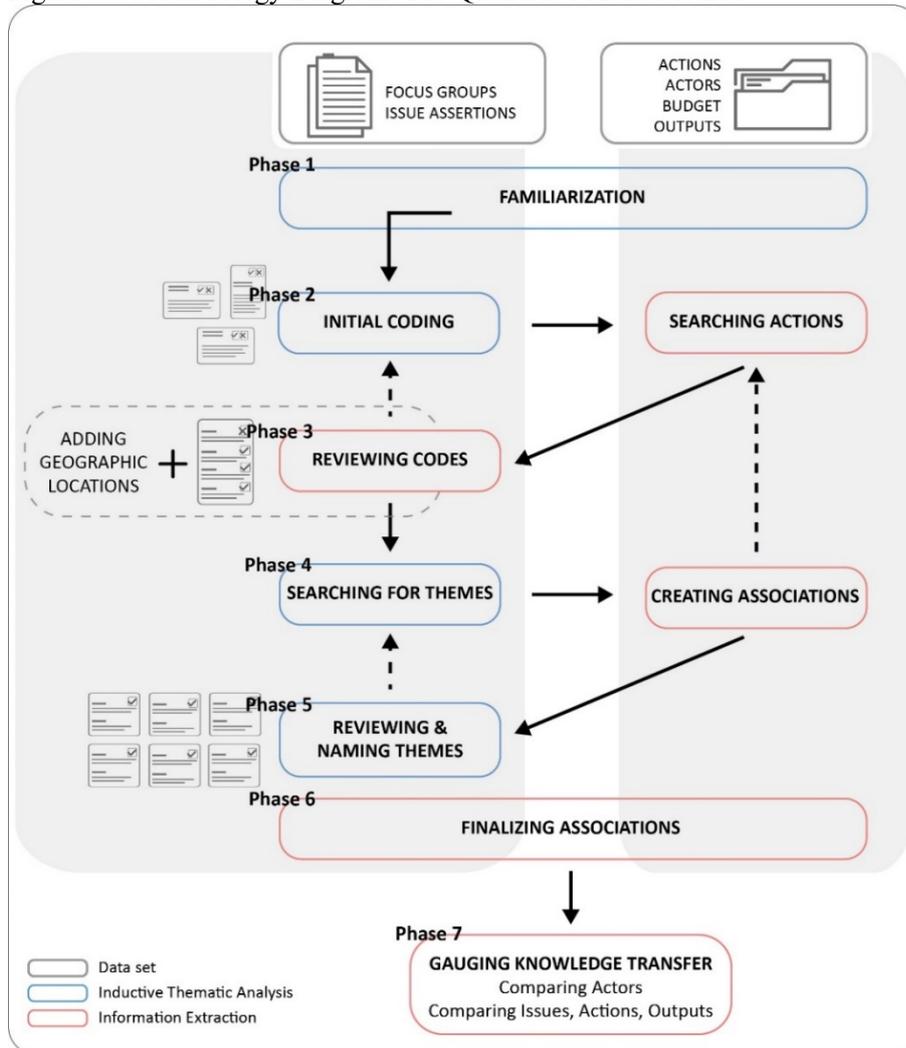
The data analysis used in this case study employed inductive thematic analysis, as a qualitative research method, in tandem with information extraction techniques from the domain of knowledge engineering. The thematic analysis was undertaken to extract patterns of knowledge transfer embracing a data-driven approach with a semantic focus as described by Braun et al. (2016, p.3). Information extraction was based on what was suggested by Hobbs and Riloff (2010, p.511) as the process of scanning text to search for information of some interest. Information extraction techniques were used to search for associations, and to review and refine the thematic analysis for a consistent and coherent analysis procedure.

Thematic analysis is a method for identifying, analysing and reporting patterns within data with minimal intervention (Braun and Clarke 2006, p.79). Inductive analysis implies a process of coding the data without trying to fit it into a pre-existing coding frame, meaning the form of thematic analysis is data-driven where the content itself guides the development of the analysis (Braun and Clarke 2006, p.83; Braun et al. 2016, p.4). Semantic approach indicates that the themes are identified within the explicit meanings of the data, not looking for anything beyond what has been written in the data, looking for explicitly stated ideas, concepts, meanings, experiences, etc. (Braun and Clarke 2006, p.84; Braun et al. 2016, p.3).

The thematic analysis has 6 phases as Braun and Clarke (2006, p.87) stated in their article:

1. Familiarizing yourself with your data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

Figure 34: Methodology Diagram: The Qualitative Audit Method



The proposed Qualitative Audit Method employs the first 5 phases of a thematic analysis while combining it with information extraction techniques (Figure 34). The analysis starts with the familiarization of the data from the two documents to understand the types of discussions happening in focus group meetings and the types of actions defined in the management plan. Familiarization is the process of deeply engaging with and consuming the data to become intimately familiar with its content by reading and re-reading it; and making notes about initial ideas and emerging themes (Braun et al. 2016, p.8).

In the second phase, recurrent issue assertions or patterns of issue assertions are extracted from focus groups' report generating an initial coding system to enable the analyst to search for corresponding actions in the management plan via information extraction. Stakeholders involved in different focus group meetings are grouped, according to the different issue assertions they raised, in this initially generated coding system. This coding system is used to search for actions in the management plan which would, in theory, respond to issue assertions raised by these different stakeholders, ultimately to the initial issue codes.

The third phase involves the refinement of these codes and, if necessary, recoding and searching for actions recursively. Thematic analysis usually involves an iterative, reflexive process of moving forwards and

sometimes backwards through its phases (Braun et al. 2016, p.7). This aspect of the method is shown with dashed arrows in Figure 34.

Particularly to this dataset, a geographical attribute emerged while reviewing the codes. These emerging three different locations were appended to the codes:

- (i) Diyarbakir Fortress and Surici Area (covers NP1-NP3, and B1-B5, B11),
- (ii) Hevsel Gardens and Tigris Valley (covers NP4-NP6, and B6-B10, B12), and
- (iii) Heritage Site (covers NP1-NP6, and B1-B12).

As explained in section 5.4.1. Vision and Analysis of the site management plan area, Nominated Property was analysed in 6 parts whereas its Buffer Zones were analysed in 12 different parts in the site management plan. However, these areas reassessed during the coding phase, and divided again into three areas which contain different features with regards to their built and natural environments. The Diyarbakir Fortress and Surici Area is an urban area with cultural heritage elements, while the Hevsel Gardens and Tigris Valley is an agricultural area with cultural landscape values and the Heritage Site geographical area refers to the nominated property and its buffer zones as one single entity.

The output of phases two and three is presented as a table of issue codes in Table 12 which shows the issue codes listed based on these three geographical locations numbered in alphabetical order with the corresponding focus group which raised them using the same acronyms presented in Table 8. Whenever a focus group acronym is shown repeatedly in Table 12, it indicates that this specific focus group raised more than one assertion corresponding to each given issue code. The coding system was developed using an Excel spreadsheet to log the dataset in a systematic manner (Figure 35).

Table 12: Extracted Issue Codes about three geographical locations

Issue Codes for Diyarbakir Fortress and Surici Area	
Issue Code	Focus Group Acronym who raised the issues
Issue Code 1. Accessibility	W D D SM HM
Issue Code 2. Authenticity of Surici	HM HM
Issue Code 3. Child Education	W C W C
Issue Code 4. Child labour and abuse	W C C C SM W
<u>Issue Code 5. Coordination</u>	SM HM
Issue Code 6. Employment in situ	SM HM D HM
Issue Code 7. Funding	HM
Issue Code 8. Food market	W
<u>Issue Code 9. Public Facilities</u>	W C W Y HM
Issue Code 10. Safety problems	W Y SM HM C W C D
Issue Code 11. Social Housing	W Y D
Issue Code 12. Social Services	W C Y D D
<i>Issue Code 13. Transformation in situ</i>	SM W Y SM HM W C Y SM HM W Y SM HM
Issue Code 14. Women Solidarity	W SM HM
Issue Codes for Hevsel Gardens and Tigris Valley	
Issue Code	Focus Group Acronym who raised the issues
<u>Issue Code 15. Coordination</u>	HG
Issue Code 16. Ecological Agriculture	Y HG HG
Issue Code 17. Irrigation Systems	HG HG HG
Issue Code 18. Migratory birds	HG HG
<u>Issue Code 19. Public Facilities</u>	C ICH HG W SM D ICH
<u>Issue Code 20. Risk of Disaster</u>	SM
Issue Code 21. Soil Pollution	HG HG
Issue Code 22. Support for Producers	HG HG HG HG
<i>Issue Code 23. Tigris Valley Project</i>	Y ICH HG SM
Issue Code 24. Unregistered Activities	ICH SM Y HG HM
Issue Code 25. Water Pollution	HG SM
Issue Codes for Heritage Site	
Issue Code	Focus Group Acronym who raised the issues
Issue Code 26. Accessibility	HG SM D
Issue Code 27. Awareness raising on heritage	SM HM
<u>Issue Code 28. Coordination</u>	ICH
Issue Code 29. Documentation and Promotion	ICH HM ICH HM
<i>Issue Code 30. Holistic Planning</i>	ICH HG SM HM
Issue Code 31. Kirklar Mountain Project	ICH SM
Issue Code 32. Restoration	SM ICH
<u>Issue Code 33. Risk of Disaster</u>	SM HM
Issue Code 34. Staff	SM HM
Issue Code 35. Tourism	HM

Note: Codes that were associated with more than one geographical location are underlined. Codes that were raised by only community focus groups or received higher community mentions are shown in **bold**. Codes that received equal community and non-community mentions are shown in *italic*. Codes that were raised by only non-community focus groups or received higher non-community mentions are shown in plain type.

Figure 35: Excel spreadsheet with log of coded data

Row	Geographical Location	Issue Family	Issue No	Issue Name	FG Acronym	Focus Group issue assertions	Management plan actions	Budget
1	Diyarbakir Fortress and Surici Area	Issue Family 1	Issue Code 01	Accessibility	W	Issue 1.1: The occupation of streets by commercial	Action 5.6.1.6: Creating a safe and accessible envi	Activity
2	Diyarbakir Fortress and Surici Area	Issue Family 1	Issue Code 01	Accessibility	D	Issue 1.2: Bastions and city walls should be acces	Action 5.6.1.6: Creating a safe and accessible envi	Activity
3	Diyarbakir Fortress and Surici Area	Issue Family 1	Issue Code 01	Accessibility	D	Issue 1.3: There is a unique social structure in the	Action 5.6.1.6: Creating a safe and accessible envi	Activity
4	Diyarbakir Fortress and Surici Area	Issue Family 1	Issue Code 01	Accessibility	SM HM	Issue 1.4: The barriers for vehicles on the pedestr	Action 3.4.3.2: Regulating access hours of vehicles	€ 1,500.00
5	Diyarbakir Fortress and Surici Area	Issue Family 1	Issue Code 01	Accessibility	SM HM	Issue 1.4: The barriers for vehicles on the pedestr	Action 5.6.1.5: Expanding centralised parking oppo	Activity
6	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.1.5.2: Encouraging use of traditional mate	€ 350.00
7	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.1.5.3: Ensuring the use of implementatio	€ 250.00
8	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.1.5.4: During the implementation of the c	€ 350.00
9	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.1.5.7: Identifying and removing structures	Activity
10	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.3.3.3: Preparing Urban Design Project incl	€ 5,000.00
11	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.3.3.3: Preparing Urban Design Project incl	Activity
12	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 3.5.1.3: Conducting regular inspections and	Activity
13	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 3.5.1.4: Conducting inspections at every sta	Activity
14	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.1.3.1: Preserving the structural qualities o	Activity
15	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.1.3.2: Consulting Regional Council of Con	Activity
16	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.1: The landowners and business owners l	Action 5.1.3.3: Consulting Regional Council of Con	Activity
17	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.2: Surici area is seen as a cultural centre	Action 2.2.1: Regular monitoring of positive and	Activity
18	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.2: Surici area is seen as a cultural centre	Action 2.2.2: Giving incentives to tourism busines	€ 1,500.00
19	Diyarbakir Fortress and Surici Area	Issue Family 3	Issue Code 02	Authenticity of Surici	HM	Issue 2.2: Surici area is seen as a cultural centre	Action 2.2.3: Setting up visitor circulation paths	Activity
20	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 03	Child Education	W	Issue 3.1: Seasonal employment for agriculture ca	Action 3.3.1.4: Keeping studies on improving the le	€ 1,000.00
21	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 03	Child Education	W	Issue 3.1: Seasonal employment for agriculture ca	Action 3.3.1.5: Conducting regular follow-up studie	€ 1,000.00
22	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 03	Child Education	W	Issue 3.1: Seasonal employment for agriculture ca	Action 3.3.1.6: Supporting activities to increase urli	€ 1,000.00
23	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 03	Child Education	C	Issue 3.2: Mothers believe that pre-school educat	No actions	
24	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 03	Child Education	W C	Issue 3.3: Official language becomes a problem fo	No actions	
25	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 04	Child labour and abuse	Issue Code	Issue Code	Action 3.3.1.2: Conducting activities to increase inf	€ 590.00
26	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 04	Child labour and abuse	Issue Code	Issue Code	Action 3.3.1.3: Providing educational activities for	€ 590.00
27	Diyarbakir Fortress and Surici Area	Issue Family 2	Issue Code 04	Child labour and abuse	W C	Issue 4.1: Even though child abuse and incestuous	Action 3.3.1.1: Constituting neighbourhood teams	€ 590.00

In the fourth phase of the Proposed Qualitative Audit Method, reviewed codes are used to search for themes and start to create associations between issue assertions and management plan actions. It is crucial to understand that a 'theme' is a concept for gathering codes around besides having coherent, patterned meaning across a dataset to reveal the significant points of it (Braun et al. 2016, p.11). Generating themes classifies the dataset in a way one can create associations between issue assertions and management plan actions. Classifying the data enables the analyst to know the dataset in detail and to make meaningful comparisons between different parts of it (Dey 2003, p.41). Searching for themes in the community input and creating associations with the site management plan actions led to the final phase of thematic analysis which was reviewing and naming themes. However, this process was not linear either, and involved a series of iterations between reviewing, searching for themes, and creating associations, until an exhausted set of themes was produced (Table 13).

Table 13: Complete set of identified themes with issue codes

Surici Urban Area	Social and Economic Problems	Public Use
Issue Code 1. Accessibility Issue Code 8. Food market Issue Code 9. Public Facilities Issue Code 11. Social Housing Issue Code 13. Transformation in situ	Issue Code 3. Child Education Issue Code 4. Child labour and abuse Issue Code 6. Employment in situ Issue Code 10. Safety problems Issue Code 12. Social Services Issue Code 14. Women Solidarity	Issue Code 19. Public Facilities Issue Code 24. Unregistered Activities
Agriculture	Management	Heritage Management
Issue Code 16. Ecological Agriculture Issue Code 17. Irrigation Systems Issue Code 21. Soil Pollution Issue Code 22. Support for Producers Issue Code 25. Water Pollution	Issue Code 15. Coordination Issue Code 18. Migratory birds Issue Code 20. Risk of Disaster Issue Code 23. Tigris Valley Project	Issue Code 2. Authenticity of Surici Issue Code 5. Coordination Issue Code 7. Funding Issue Code 27. Awareness raising on heritage Issue Code 28. Coordination Issue Code 29. Documentation and Promotion Issue Code 32. Restoration Issue Code 33. Risk of Disaster Issue Code 34. Staff
Spatial Planning		
Issue Code 26. Accessibility Issue Code 30. Holistic Planning Issue Code 31. Kirklar Mountain Project Issue Code 35. Tourism		

Themes were distributed based on the geographical location attribute of each code and called "Issue Families" to differentiate them from each other. Even though 7 final themes were identified, 8 Issue Families were created because the Heritage Management theme included issue codes in two different locations (see families 3 and 8 in Table 14). However, these two families are not assessed in the study because they contain issues with no community inputs. In Table 14, issue codes raised in community focus groups are shown in black, while issue codes raised in non-community focus groups are shown in red. Since the aim of the method is to assess community knowledge transfer from consultations to the management plan, 'Issue Code 20. Risk of Disaster', 'Issue Code 31. Kirklar Mountain Project' and 'Issue Code 35. Tourism' were also not assessed.

Table 14: Families of issues categorised by geographical locations

Diyarbakir Fortress and Surici Area	Hevsel Gardens and Tigris Valley	Heritage Site
Issue Family 1: Surici Urban Area Issue Code 1. Accessibility Issue Code 8. Food market Issue Code 9. Public Facilities Issue Code 11. Social Housing Issue Code 13. Transformation in situ	Issue Family 4: Public Use Issue Code 19. Public Facilities Issue Code 24. Unregistered Activities	Issue Family 7: Spatial Planning Issue Code 26. Accessibility Issue Code 30. Holistic Planning Issue Code 31. Kirkklar Mountain Project Issue Code 35. Tourism
Issue Family 2: Social and Economic Problems Issue Code 3. Child Education Issue Code 4. Child labour and abuse Issue Code 6. Employment in situ Issue Code 10. Safety problems Issue Code 12. Social Services Issue Code 14. Women Solidarity	Issue Family 5: Agriculture Issue Code 16. Ecological Agriculture Issue Code 17. Irrigation Systems Issue Code 21. Soil Pollution Issue Code 22. Support for Producers Issue Code 25. Water Pollution	Issue Family 8: Heritage Management Issue Code 27. Awareness raising on heritage Issue Code 28. Coordination Issue Code 29. Documentation and Promotion Issue Code 32. Restoration Issue Code 33. Risk of Disaster Issue Code 34. Staff
Issue Family 3: Heritage Management Issue Code 2. Authenticity of Surici Issue Code 5. Coordination Issue Code 7. Funding	Issue Family 6: Management Issue Code 15. Coordination Issue Code 18. Migratory birds Issue Code 20. Risk of Disaster Issue Code 23. Tigris Valley Project	

Associations between issue assertions and management plan actions are finalised in the sixth phase of the Qualitative Audit Method (Figure 34) in a matrix presented in Appendix I. Associating actions in the management plan with issue assertions raised by interactions with all stakeholders involved in focus group meetings was the first step to assess knowledge transfer from community participation to management plan implementation. This association enables one to gauge, at least qualitatively, how much issue assertions raised by the community are translated into actions in the management plan.

The final phase of the Qualitative Audit Method is the gauging of this knowledge transfer which involves comparing actors from the community with the ones defined as implementers, beneficiaries or consultants in management plan and comparing issue assertions with actions and actions' outputs. Each Issue Family is subsequently analysed to cross reference results from different associations and to extract potential patterns of information transfer from focus group meetings to the site management plan.

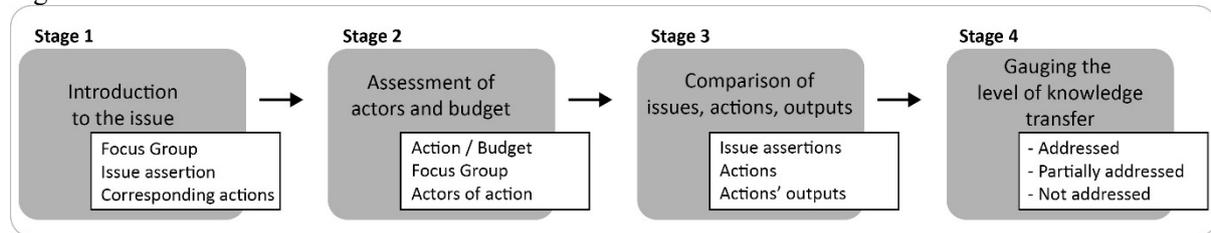
6.3. Procedure for Gauging Knowledge Transfer

Qualitative gauging is undertaken according to the following steps:

- Verifying whether stakeholders from focus group meetings are transformed into actors responsible for implementing the action, beneficiaries of the action or consultants on the action being implemented;
- Verifying if there is a designated budget for the action;
- Discussing if an issue raised in the focus group report is translated into an action reported in the management plan considering the corresponding outputs used to monitor its success.

Knowledge is considered transferred when there is correspondence between community stakeholders from focus groups and implementers, beneficiaries and/or consultants of the associated management plan action/s. An action is considered implemented if a budget is allocated to it. When they mitigate issues, actions' outputs are compared to ideal scenarios to monitor their implementation.

Figure 36: The structure of the assessment method



The assessment starts by introducing the issue code and the focus groups' assertions coming from the discussions in the focus group meetings. The associated management plan action/s to each issue are copied and pasted next to them but not categorised in terms of their response (Figure 36 – Stage 1).

In the next stage, associated action/s are analysed in detail with regards their actors and budget. As the actors of the action, responsible actors for the action are called implementers, stakeholder actors of the action are called consultants, and target group for the action are called beneficiaries. They are compared with each other and with the focus group actors raising the associated issue assertion/s. Correspondences between any of these actors refer to some degree of knowledge transfer. Budget refers to the likelihood of the implementation of the action (Figure 36 – Stage 2).

After each management plan action is assessed with regards to its actors and budget, issue assertions raised in focus group meetings are compared with their matched management plan actions and their corresponding outputs, namely monitoring indicators, (Figure 36 – Stage 3).

In the final stage, one can make inferences based on all criteria discussed in previous stages about knowledge transfer. Gauging the level of knowledge transfer is defined at three different levels (Figure 36 – Stage 4):

- (i) Actions which are a direct translation from issue assertions raised by different stakeholders (addressed),
- (ii) Actions which are partially or indirectly translated from issue assertions raised by different stakeholders (partially addressed) and,
- (iii) Absence of actions to address issue assertions raised by different stakeholders (not addressed).

All stages are analysed through assessment tables which present the relevant data from coded issues and associated management plan actions. In order to fully comprehend the structure and the content of each table, exemplary tables with explanations are illustrated in the next section.

6.4. Example of method deployment

The first table used in the analysis is the introductory table of issues and actions. In the first and second columns, focus group acronyms and raised issue assertions by these focus groups are given. In the third column, management plan actions associated to those issue assertions are shown (Table 15).

Table 15: Exemplary table for introduction to the issue: Issue Code 17. Irrigation Systems

Focus Group Acronym and Issue Assertions		Management Plan Actions
HG ⁴	Issue 17.1: Old irrigation pipes cause problems in production, but producers do not use motorized pumps because they increase production costs. They use the sewage water which pollutes the Tigris River, causes health problems, and decreases the quality of the products.	Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.
HG	Issue 17.2: Irrigation needs to be done with clean water.	Action 2.1.3.2: Spread the use of drip and sprinkler irrigation systems.
		Action 5.3.1.1: Establish the "Hevsel Gardens Ecological Farm" where fine agricultural practices are carried out by the public and irrigation systems are installed by taking into consideration heritage values.
HG	Issue 17.3: There is a need for producer training on irrigation.	No actions
HG	Issue 17.4: Irrigation Cooperatives should be supported.	No actions

The second table presents community stakeholders from focus group meetings, plus beneficiaries, consultants and implementers of the actions, and its allocated budget as stated in the management plan (Table 16). The first column contains the action/s and other columns show the actors and their relations to each other expressed by a colouring system in which: **red colour** refers to local level connection, **blue colour** refers to city and central level connection, while black colour does not refer to any connections between the actors. (For the levels of actors; see Table 9). Due to the complexity of the actors involved in the process, some actors are mentioned by using abbreviations. The abbreviations are given in Appendix II.

Table 16: Exemplary table for the assessment of actors and budget: Issue Code 17. Irrigation Systems

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets;	1.055.000 TRY Giving consultancy service for producers on funding and aids for the transition of irrigation in relevant institutions by a group of three experts: 10.000 TRY x 5 years = 50.000 TRY	Institutions and organizations in urban planning realm; Commercial enterprises; Tourism enterprises	"Dicle University Center for Environmental Studies"; "Diyarbakir Food Control Laboratory Directorate"; "Provincial Sanitation Board"; "DPD of Health"; "Karacadag Development Agency"	"DSI 10th Regional Directorate"; "DPD of Agriculture and Forestry"; "Diyarbakir Water and Sewerage Administration General Directorate"

⁴ Acronym HG represents the Hevsel Gardens' users (see Table 8).

Action 2.1.3.2: Spread the use of drip and sprinkler irrigation systems.	DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	1.950.000 TRY Based on budgets of similar projects that support irrigation infrastructure investments, the budget for pilot scheme to spread the use of drip and sprinkle irrigation systems is assigned as 500.000 TRY.	Hevsel Gardens' producers; Institutions; NGOs working on agriculture in the management plan area	"Dicle University Center for Environmental Studies"; "Irrigation Cooperatives"; "Irrigation Unions"; "DMM Strategy Development Directorate"; GABB	"DSI 10th Regional Directorate"; "DPD of Agriculture and Forestry"
Action 5.3.1.1: Establish the "Hevsel Gardens Ecological Farm" where fine agricultural practices are carried out by the public and irrigation systems are installed by taking into consideration heritage values.		1.000.000 EUR Based on the projects for organic agriculture development by EU Grant Funds, Ministry of Agriculture and Forestry, assigned budget is 1.000.000 EUR.	Hevsel Gardens' producers; Hevsel Gardens' consumers; Institutions; Organizations working on agriculture; Companies	"Chamber of Architects Diyarbakir Branch"; "Chamber of Landscape Architects Diyarbakir Branch"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"; GABB; "DSI 10th Regional Directorate"	"DMM Construction and Urbanization Directorate"; "DPD of Agriculture and Forestry"

The third table shows the comparison of issue assertions raised in focus group meetings, management plan actions and actions' outputs defined in the management plan (Table 17). The first column shows issue assertions raised by community stakeholders, while the second column gives associated actions which are analysed in Table 16. Outputs, monitoring indicators, are directly taken from the management plan for their corresponding action.

Table 17: Exemplary table of comparison of issues, actions, outputs: Issue Code 17. Irrigation Systems

Issue	Action	Output
Issue 17.1: Old irrigation pipes cause problems in production, but producers do not use motorized pumps because they increase production costs. They use the sewage water which pollutes the Tigris River, causes health problems, and decreases the quality of the products.	Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.	Number of the educational awareness raising activities on the risks of surface irrigation systems; Number of the producers and farmers participated in educational awareness raising activities; Ratio of the producers and farmers who has started to use alternative irrigation systems instead of surface irrigation systems
Issue 17.2: Irrigation needs to be done with clean water.	Action 2.1.3.2: Spread the use of drip and sprinkler irrigation systems.	Size of agricultural area where equipment of drip and sprinkler irrigation systems are in use; Number of producers who are using the drip and/or sprinkler irrigation systems
	Action 5.3.1.1: Establish the "Hevsel Gardens Ecological Farm" where fine	Hevsel Gardens Ecological Farming Report;

	agricultural practices are carried out by the public and irrigation systems are installed by taking into consideration heritage values.	Number of experts working in the project
--	-----------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------

The final table summarizes the results of the assessment showing the level of knowledge transfer for each issue. The column headings indicate the level:

- (i) Actions which are a direct translation from issue assertions raised by different stakeholders (addressed),
- (ii) Actions which are partially or indirectly translated from issue assertions raised by different stakeholders (partially addressed) and,
- (iii) Absence of actions to address issue assertions raised by different stakeholders (not addressed).

Whereas the row headings define the criteria to look for. In the first row, issue assertions classified under the aforementioned issue codes are given, and in the second one, the focus groups who raised these issue assertions are listed. The third row shows the associated actions, and the next row gives the budget. Following rows shows the matching of actors who participated in the focus groups and were stated as an actor of the action. Finally, the types of the outputs are declared to conclude the assessment.

The results for each issue code are transformed into numeric values so they can be counted. Each column in Table 18, representing an association, partial association or no association between issue assertions and management plan actions is counted as one except for the ones associated with non-community stakeholders.

Table 18: Exemplary table of gauging knowledge transfer: Issue Code 17. Irrigation Systems

Level of Knowledge Transfer					
	Addressed	Partially addressed		Not addressed	
Issue	Issue 17.2	Issue 17.1	Issue 17.2	Issue 17.3	Issue 17.4
Focus Group	HG	HG	HG	HG	HG
Action	Action 2.1.3.2	Action 3.4.2.5	Action 5.3.1.1		
Budget	1.500.000 TRY	50.000 TRY	1.000.000 EUR		
Beneficiaries	Hevsel Gardens' producers, NGOs working on agriculture		Hevsel Gardens' producers and consumers, organizations working on agriculture		
Consultants	Irrigation cooperatives and unions		Chamber of Architects Diyarbakir Branch		
Implementers	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry		
Outputs	Quantitative	Quantitative	Quantitative and qualitative		

The detailed report of the assessment of all the issue codes is given in Appendix III: Qualitative Assessment Report as an annex to facilitate the reading of the thesis. A summary of its results together with a discussion is presented in the next sections.

6.5. Results

In this section, the results of the Proposed Qualitative Audit Method application to the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS are discussed. 242 management plan actions from the site management plan in tandem with 35 issue codes raised in focus group meetings are assessed. From the 242 management plan actions, 108 were related to the discussions in focus group meetings which involved the participation of community members, 81 of them addressed issues raised by non-community stakeholders, whereas the remaining ones "mainly refer to the preservation of tangible and intangible cultural values, improvement in the quality of life, and tourism activities with the respective spatial organizations related to it" (Aydin et al. 2019, p.29). Under 35 issue codes, 91 issue assertions were expressed, 72 of them were raised by at least one community stakeholder, whereas the remaining ones were raised solely by non-community stakeholders.

As previously illustrated, knowledge transfer was gauged at three levels in relation to how comprehensively issues raised by the community focus groups were addressed by the management plan. In all levels, a community focus group should provide local knowledge as the basis against which knowledge transfer can be gauged. Full knowledge transfer was inferred when an issue assertion had an action which directly corresponded to it and an output which clearly measured this response. This full transfer was inferred as confirmed if community groups were directly listed as beneficiaries or consultants of the action. Partial knowledge transfer was inferred when an action partially responded to an issue assertion and/or its outputs did not directly measure this response, regardless of if community members were involved or not in the delivery of the action. Implementation could be directly inferred in case there was a budget assigned to the action but the absence of it could only be flagged as uncertain. Issues not addressed by any actions of the management plan or actions in the management plan that did not respond to community issues were classified as having no knowledge transfer involved.

The detailed analysis is presented in Appendix III: Qualitative Assessment Report. This report is summarised in the next sections for each Issue Family.

6.5.1. Results for Diyarbakir Fortress and Surici Area

Issues for the Diyarbakir Fortress and Surici Area were raised by all community stakeholders from focus groups except for the Hevsel Gardens one. For this area, there were three Issue Families identified which are Surici Urban Area, Social and Economic Problems, and Heritage Management (see Appendix III, A. Diyarbakir Fortress and Surici Area).

Table 19: Summary of assessment for all issue codes in Issue Family 1: Surici Urban Area

Issue Code	Fully transferred	Partially transferred	Not transferred
Issue Code 1. Accessibility		3	
Issue Code 8. Food market		2	
Issue Code 9. Public Facilities			3
Issue Code 11. Social Housing		2	1
Issue Code 13. Transformation in situ	3	1	2
Total for Issue Family 1	3: 17.6%	8: 47.1%	6: 35.2%

The first family, Surici Urban Area includes the issue codes listed in Table 19. These issues were raised by the Women, Children, Youth, and people with Disabilities focus groups. Interestingly, the Women focus group provided assertions for every issue in this family. The Youth focus group focused on issues related to Public Facilities, Social Housing, and Transformation in situ while the people with Disabilities focus group was more interested in issues related to Accessibility and Social Housing. Focus group actors are stated as beneficiaries or consultants in some cases, whereas all the corresponding actions have no budget allocated to them except for one action addressing an issue assertion raised in Transformation in situ. Issues in this family were mainly related with the urban space and the built environment and mostly partially addressed by management plan actions whereas Issue Code 9. Public Facilities was not addressed at all.

For Issue Code 1. Accessibility, three issue assertions are broadly addressed by one action with no budget and no correspondences between its actors and the community. Two issue assertions raised in Issue Code 8. Food market are partially addressed by two actions because the requests of the community are responded by control actions.

For Issue Code 11. Social Housing, two issue assertions are addressed by two actions in partial because budget is not designated for these actions, and they are policies which do not directly refer to the places stated in the issue assertions. Even though no budget is allocated to any of the actions in Issue Code 13. Transformation in situ, consultants of the actions include community stakeholders and actions explicitly (in full) or indirectly (in partial) address to the issue assertions.

Consequently, one can infer that the knowledge is transferred to some degree for around 65% of the connections for Issue Family 1.

Table 20: Summary of assessment for all issue codes in Issue Family 2: Social and Economic Problems

Issue Code	Fully transferred	Partially transferred	Not transferred
Issue Code 3. Child Education		3	2
Issue Code 4. Child labour and abuse	2	2	2
Issue Code 6. Employment in situ		4	6
Issue Code 10. Safety problems		1	3
Issue Code 12. Social Services			5
Issue Code 14. Women Solidarity		3	
Total for Issue Family 2	2: 6.1%	13: 39.4%	18: 54.5%

Issue codes for the second family are listed in Table 20. In this family of issues, the issue codes are not directly related to the heritage, nevertheless, the site management plan addresses them possibly because UNESCO WHC inscribed the site on the criterion (iv) as a "*landscape which illustrates (a) significant stage(s) in human history*" (UNESCO 2019, para.77). In this manner, the social problems of the community can be seen as the negative factors on the safeguarding of the OUV of the heritage site.

All the community focus groups stated issue assertions related to Social Services and Safety problems except the Hevsel Gardens focus group. The Women focus group focused on problems about children and those women face in their social and economic lives, whereas the people with Disabilities focus group raised issues about local employment. Focus group actors were stated as either beneficiaries or consultants in most of the

cases, and all the actions had an allocated budget except for one corresponding to an issue assertion in Safety Problems. Issue Codes in this family were mostly not addressed (more than half of them), with Issue Code 12. Social Services not addressed at all.

For Issue Code 3. Child Education, three actions partially address to one issue assertion about the continuation to the school. A budget is allocated, and consultants and beneficiaries of the actions include the community stakeholders. However, the actions are policies about the duration or the level of education, meaning that, they indirectly address to the issue assertion.

For Issue Code 4. Child labour and abuse, all the corresponding actions have a budget allocated and consultants and beneficiaries include the community stakeholders. However, only one action fully addresses to two issue assertions regarding its content whereas other two actions broadly address to the issue code aiming to educate parents on the issue.

For the Issue Code 14. Woman Solidarity, three actions partially address to one issue assertion. Assigned budget and defined beneficiaries and consultants from community stakeholders refers that the implementation of the actions likely happens. However, the actions aim to raise awareness of women only, not the whole community.

Issue Code 6. Employment in situ and Issue Code 10. Safety problems are also a concern for the heritage site, but the knowledge is partially or not transferred for them. For the latter, neither a budget is allocated, nor there is a correspondence between actors and the community. For the former, only one action addresses to the issue assertion raised by the community focus group but budget and correspondence between actors are not provided for it. The other three actions address to the issue code in general. Even though they have a budget allocated, they address indirectly to the issue by proposing to use heritage values such as craftsmanship, traditional products to create employment areas in heritage structures.

Consequently, one can infer that the knowledge is transferred to some degree for around 45% of the connections for Issue Family 2 whereas it is not transferred for more than half of them.

The third family, Heritage Management includes issues related to ‘Authenticity of Surici’, ‘Coordination’, and ‘Funding’. These issues were not raised by any of the community focus groups, therefore, this issue family was not assessed in this analysis. However, they were raised by the Spatial Management and the Heritage Management focus groups and related to the protection and conservation of the heritage site.

6.5.2. Results for Hevsel Gardens and Tigris Valley

The OUV stresses the importance of the gardens by the statement of “*The rare and impressive Diyarbakir Fortress and the associated Hevsel Gardens, illustrate a number of significant historical periods within this region [...] through its [...] gardens/fields and the landscape setting in relation to the Tigris River.*” (Decision 39 COM 8B.32). Issues for the Hevsel Gardens and Tigris Valley were raised by all community stakeholders from focus groups meetings, with the majority coming from the Hevsel Gardens focus group. They were grouped into three families and related to the public use of the Hevsel Gardens and the Tigris Valley, agriculture in the Hevsel Gardens, and the management of the Hevsel Gardens (see Appendix III, B. Hevsel Gardens and Tigris Valley).

Table 21: Summary of assessment for all issue codes in Issue Family 4: Public Use

Issue Code	Fully transferred	Partially transferred	Not transferred
Issue Code 19. Public Facilities		1	3
Issue Code 24. Unregistered Activities		2	2
Total for Issue Family 4	0: 0%	3: 37.5%	5: 62.5%

The fourth family includes issues listed in Table 21. They mainly referred to the public use of the Tigris River coastal area and the request for public facilities in the Tigris Valley. These issues were raised by all the community focus groups. The actions classified as partially addressed included focus group actors as beneficiaries, consultants, or implementers but only one of them corresponding to Public Facilities has a budget allocated to it. This one action indirectly addresses to one issue assertion by offering to create an implementation guide on camping tourism to a request of a camp area. In this family, issue assertions were predominantly not addressed. Likewise, what was seen in Issue Family 1, issues related to Public Facilities were not addressed at all.

Consequently, one can infer that the knowledge is partially transferred for around 37% of the connections for Issue Family 4, and community-held knowledge is fully transferred for none of the connections.

Table 22: Summary of assessment for all issue codes in Issue Family 5: Agriculture

Issue Code	Fully transferred	Partially transferred	Not transferred
Issue Code 19. Ecological Agriculture	4	7	1
Issue Code 20. Irrigation Systems	1	2	2
Issue Code 25. Support for Producers	2	6	
Issue Code 24. Soil Pollution	1	3	1
Issue Code 28. Water Pollution	5	7	2
Total for Issue Family 5	13: 29.6%	25: 56.8%	6: 13.6%

As the vital activity for heritage site, issues related to the agriculture in Hevsel Gardens, the fifth family were all raised by the Hevsel Gardens focus group, with only the 'Ecological Agriculture' issue code also raised by the Youth focus group. Issue codes from this family are displayed in Table 22, all of them aimed for a solution or an improvement to current agricultural activities. Focus group actors were stated as beneficiaries, consultants, and implementers in all issue codes. Local level actors were stated as consultants, but the ones stated as implementers were from central level actors: DPD of Agriculture and Forestry and the Dicle University. One can infer that they increased the possibility of knowledge transfer to have happened since they were informed about focus group discussions first-hand. Most of the actions had a budget allocated to them. Even actions with no budget still included focus group actors as consultants or implementers. Approximately 30% of them are fully addressed whereas around 57% of them are partially addressed (Table 22). One can infer that this is the most successful Issue Family regarding the level of knowledge transfer.

Table 23: Summary of assessment for all issue codes in Issue Family 6: Management

Issue Code	Fully transferred	Partially transferred	Not transferred
Issue Code 15. Coordination		2	
Issue Code 18. Migratory birds	1	1	1
Issue Code 23. Tigris Valley Project		3	
Total for Issue Family 6	1: 12.5%	6: 75%	1: 12.5%

The sixth family comprises issue codes about the management of Hevsel Gardens. ‘Risk of Disaster’ was not raised by any community focus groups while ‘Coordination’ and ‘Migratory birds’ were raised only by the Hevsel Gardens focus group. On the other hand, the ‘Tigris Valley Project’ issue code was raised by both the Youth and the Hevsel Gardens community focus groups possibly due to its negative impact and potential management problems. Producers from Hevsel Gardens focus group were stated as beneficiaries for only one action whereas, the Dicle University and the DPD of Agriculture and Forestry were mostly included as consultants and implementers of the corresponding actions. However, only one action in Coordination (see Appendix III, B.3. Issue Family 6: Management) had a budget assigned to it meaning one can infer that even though issue codes were mostly partially addressed in this family (Table 23), their implementation is uncertain.

6.5.3. Results for Heritage Site

Issue assertions for the Heritage Site were raised by only two community stakeholders: the Hevsel Gardens and the people with Disabilities focus groups who respectively raised issues about ‘Holistic Planning’ and ‘Accessibility’ (Table 24). Issues related to the ‘Kirkklar Mountain Project’ and ‘Tourism’ were raised by non-community focus groups and were not included in the assessment (see Appendix III, C. Heritage Site).

Table 24: Summary of assessment for all issue codes in Issue Family 7: Spatial Planning

Issue Code	Fully transferred	Partially transferred	Not transferred
Issue Code 26. Accessibility	2	3	3
Issue Code 30. Holistic Planning		2	
Total for Issue Family 7	2: 20%	5: 50%	3: 30%

All the addressing actions in Accessibility have a budget allocated to them and focus group actors are included as beneficiaries, consultants, and implementers in fully transferred connections whereas partially transferred ones do not include any correspondence between actors. In Holistic Planning, two actions without a budget address one issue assertion but consultants and implementers included central level focus group actors. Therefore, the knowledge is transferred partially in two of these connections. In conclusion, issue assertions in this family were addressed either fully or partially in 70% of the connections (Table 24).

The last family of issue codes are related to the management of the Heritage Site. Issues raised there came from technicians in the Spatial Management, Heritage Management, and Intangible Cultural Heritage focus groups rather than the community, therefore, they were not assessed as a part of this analysis.

6.6. Discussion

Table 25: Knowledge transfer from focus group meetings to the management plan

Issue Family	Fully Transferred		Partially Transferred		Not Transferred	
	Count	Percentage	Count	Percentage	Count	Percentage
Issue Family 5: Agriculture	13	10.8%	25	20.8%	6	5.0%
Issue Family 2: Social and Economic Problems	2	1.7%	13	10.8%	18	15.0%
Issue Family 1: Surici Urban Area	3	2.5%	8	6.7%	6	5.0%
Issue Family 6: Management	1	0.8%	6	5.0%	1	0.8%
Issue Family 7: Spatial Planning	2	1.7%	5	4.2%	3	2.5%
Issue Family 4: Public Use	0	0.0%	3	2.5%	5	4.2%
Total	21	17.5%	60	50.0%	39	32.5%

In conclusion, Table 25 illustrates overall knowledge transfer inferred from community focus groups to the management plan of the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape World Heritage Site. Despite the efforts to engage with the community in two different stages throughout the development of the management plan and have around five different community focus groups engaged in the process, only 17.5% of knowledge from these groups was inferred as fully transferred to the management plan. Nevertheless, knowledge was partially transferred in half of the cases. Rank ordering the family of issues in relation to knowledge transfer revealed that Social and Economic Problems in Surici area comes second potentially due to the fact it had the second largest number of partially transferred knowledge level, despite containing at the same time the largest number of not transferred knowledge level.

As explained in Chapter 5. Case Study Description, low-income families inhabit this area, with high unemployment rates and a population strongly dependent on informal economy and agriculture (Karacadag Development Agency 2013). This explains potentially why the greatest density of knowledge transfer was related to socio-economic issues and agriculture. Issue Family 5. Agriculture seemed to have been where the community was more successful in getting their views heard, even though there was almost twice as much knowledge transfer happening at a partial level than in its fulness. Issue Family 2. Social and Economic Problems was that in which knowledge transfer seemed to have happened the least, potentially due to the fact that unaddressed issues in this case might have fallen outside the scope of the management plan (i.e., social services, employment). However, urgent issues related to these were gauged as fully transferred; Issue Code 4. Child labour and abuse.

Interestingly, issue families related to heritage management namely, Issue Family 3 and 8, were only raised by non-community stakeholders, meaning no knowledge transfer was offered for the focal point of the WHS nomination process. One can infer that the community might have more urgent needs or might lack of awareness about the importance of heritage site. Actions on communication, education and awareness were therefore offered to better engage the community with heritage aspects central to the management plan. Some of these actions bridged with issues raised by community focus groups in other families, for instance when 'Employment in situ' (Issue Code 6) attempted to connect the community with the heritage site by proposing training activities on traditional craftsmanship as a means to potentially rescue cultural values and

similar initiative were put forward to support producers and the youth to enhance community engagement with the cultural landscape.

However, Table 26 shows that in the issue families of ‘Surici Urban Area’, ‘Spatial Planning’ and ‘Management’, knowledge transfer happened mainly partially, whereas in issues related to ‘Public Use’, knowledge transfer were not present many times as community aspirations and site management goals happen to be going in different directions. Poor knowledge transfer in these families of issues joined with poor knowledge transfer on social and economic issues could suggest that the implementation of the plan as a whole might not get sufficient community buy-in. This might jeopardize the initiative altogether or push for gentrification of the area and a shift in its socio-economic demographics potentially contradicting the original intention of the management plan to promote and support cultural heritage.

Table 26: Detailed assessment of the community knowledge transfer

Area	Issue Family	Issue Code	Fully Transferred	Partially Transferred	Not Transferred	
Diyarbakir Fortress and Surici Area	Issue Family 1: Surici Urban Area	Issue Code 9. Public Facilities			3	
		Issue Code 1. Accessibility		3		
		Issue Code 8. Food Market		2		
		Issue Code 11. Social Housing		2	1	
		Issue Code 13. Transformation in situ	3	1	2	
	Issue Family 2: Social and Economic Problems	Issue Code 12. Social Services				5
		Issue Code 3. Child Education		3		2
		Issue Code 4. Child labour and abuse	2	2		2
		Issue Code 6. Employment in situ		4		6
		Issue Code 14. Women Solidarity		3		
		Issue Code 10. Safety Problems		1		3
	Issue Family 3: Heritage Management	Issue Code 2. Authenticity of Surici				
		Issue Code 5. Coordination				
Issue Code 7. Funding						
Hevsel Gardens and Tigris Valley	Issue Family 4: Public Use	Issue Code 19. Public Facilities		1	3	
		Issue Code 24. Unregistered Activities		2	2	
	Issue Family 5: Agriculture	Issue Code 16. Ecological Agriculture	4	7	1	
		Issue Code 17. Irrigation Systems	1	2	2	
		Issue Code 22. Support for Producers	2	6		
		Issue Code 21. Soil Pollution	1	3	1	
		Issue Code 25. Water Pollution	5	7	2	
	Issue Family 6: Management	Issue Code 23. Tigris Valley Project		3		
		Issue Code 15. Coordination		2		
		Issue Code 18. Migratory birds	1	1	1	
Issue Code 20. Risk of Disaster						
Heritage Site	Issue Family 7: Spatial Planning	Issue Code 26. Accessibility	2	3	3	
		Issue Code 30. Holistic Planning		2		
		Issue Code 31. Kirklar Mountain Project				
		Issue Code 35. Tourism				
	Issue Family 8: Heritage Management	Issue Code 27. Awareness raising on heritage				
		Issue Code 28. Coordination				
		Issue Code 29. Documentation and Promotion				
		Issue Code 32. Restoration				
		Issue Code 33. Risk of Disaster				
		Issue Code 34. Staff				

As a result of this assessment, one can make inferences around five broader aspects related to (i) society, (ii) agriculture (a site-specific activity in Hevsel Gardens), (iii) heritage/preservation, (iv) communication (as a way of bridging between the heritage and community), and (v) space, to develop a macro picture of the current situation and potentially guide future actions.

Issue Codes related to society seems to be gathered around Issue Family 2. Social and Economic Problems, and the ones related to agriculture around Issue Family 5. Agriculture and Issue Family 6. Management. Based on the level of knowledge transfer in these issue families, one can infer that the site management plan used community-held values and issues.

Interestingly, absent knowledge transfer in heritage/preservation related issue families was anticipated with actions about communication which includes supportive, educative and awareness raising activities for the community. Some actions addressing Issue Code 13. Transformation in situ offered connecting the rightsholders with the heritage instead of excluding them, and some actions addressing Issue Code 22. Support for Producers aimed to support producers in production and marketing processes. Both created a communication interface between the heritage site and its community in a similar way as aforementioned for Issue Code 6. Employment in situ.

The results of the qualitative assessment showed that space related issue families (Issue Family 1. Surici Urban Area, Issue Family 4. Public Use, and Issue Family 7. Spatial Planning) were the ones with the least level of knowledge transfer potentially because space related actions mostly aimed to increase the tourism capacity and opportunities offered by the WHS inscription.

Consequently, results of this method showed that:

- Three levels of knowledge transfer were gauged: fully transferred, partially transferred, and not transferred.
- The method factored in who proposed the issues from community stakeholders.
- The method revealed specific weaknesses in knowledge transferability, for instance, in Diyarbakir Fortress and Surici Area, issues raised by the community related to the built environment and social and economic structure were mostly not transferred into management plan actions.
- The method also revealed specific strengths in knowledge transferability, for instance, issues related to agriculture and its management were mostly transferred into management plan actions.
- Interestingly, issues related to heritage and its management were in general overlooked by the community.
- The method captured types of issues (statement, suggestion, diagnosis, request) and types of actions (control, policy, intervention), enabling the pairing of them according to different knowledge domains (space, society, heritage, communication, agriculture, research) from which patterns could be extracted and generalised, so that rules could be developed.

6.7. Conclusion

This chapter illustrated the deployment of the proposed Qualitative Audit Method with the aim of objectively gauging knowledge transfer from the community to the management plan. In the qualitative analysis, issue assertions were manually coded, and management plan actions were manually associated to them using a content-based thematic analysis. Then a manual qualitative analysis was undertaken to assess the level of knowledge transfer from community focus groups to management plan actions. Although reproducible, the process was lengthy and produced greater volumes of data to interpret, jeopardizing its transferability to other management plans with similar structure.

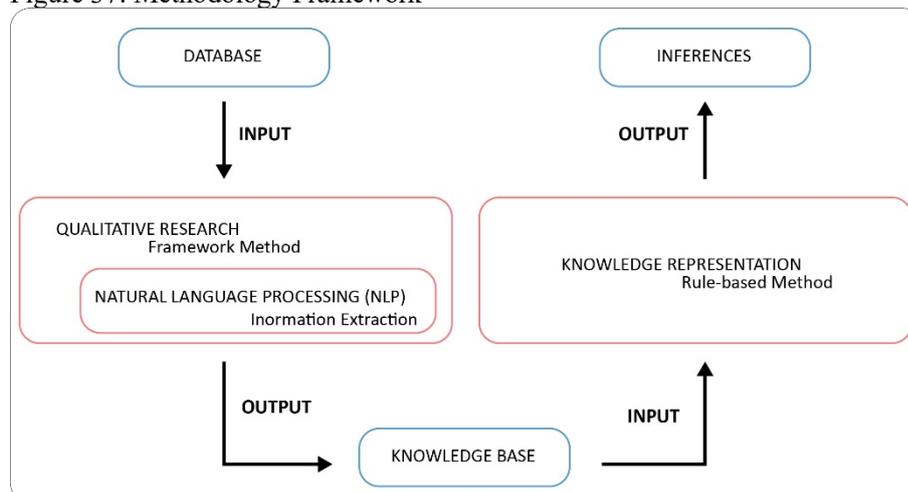
However, since site management plans for heritage sites are mostly similar in terms of defining actions, stakeholders, consultants, and implementers, it is still worth to further develop the proposed method to gauge knowledge transfer from communities to site management plans for UNESCO World Heritage Sites either completed or in preparation. Therefore, the method presented in *Chapter 7 The Semi-Automated Method: Audit Design* is automated as much as possible and further refined integrating the qualitative analysis into knowledge representation methods with Natural Language Processing and rule-based analysis methods.

Chapter 7. The Semi-Automated Method: Audit Design

Audit Design was developed to automate as much as possible the gauging of knowledge transfer from community consultations to management plan actions. Unlike the previous qualitative method, Audit Design employs three different methods from qualitative research to knowledge engineering. The inductive thematic analysis method is replaced by the Framework method which has similar phases but additionally works with thematic matrices which summarize and display data (Spencer et al. 2014a, p.283). Besides, it employs an analytical framework comprising descriptions of developed categories and a map of linkages between them (Spencer et al. 2014a, pp.284–285). Developed categories are used to extract relevant information from the database composed of extracted issue assertions and management plan actions and to form a knowledge base. To extract automatically the information contained in the database, some techniques developed in Natural Language Processing (NLP) are used. NLP refers to an area of research in Computer Science that develops algorithms and tools to process and analyse natural language data by decomposing it into several stages (Jackson and Moulinier 2007). Information Extraction (IE), one of the subfields of NLP, is the task of automatically extracting information from unstructured data and transform this information to be “readable” by a machine rather than only a human being. IE is employed and the data extracted from the process are structured into a knowledge base that will comprise a matrix of connections of described types and categories of issue assertions and management plan actions.

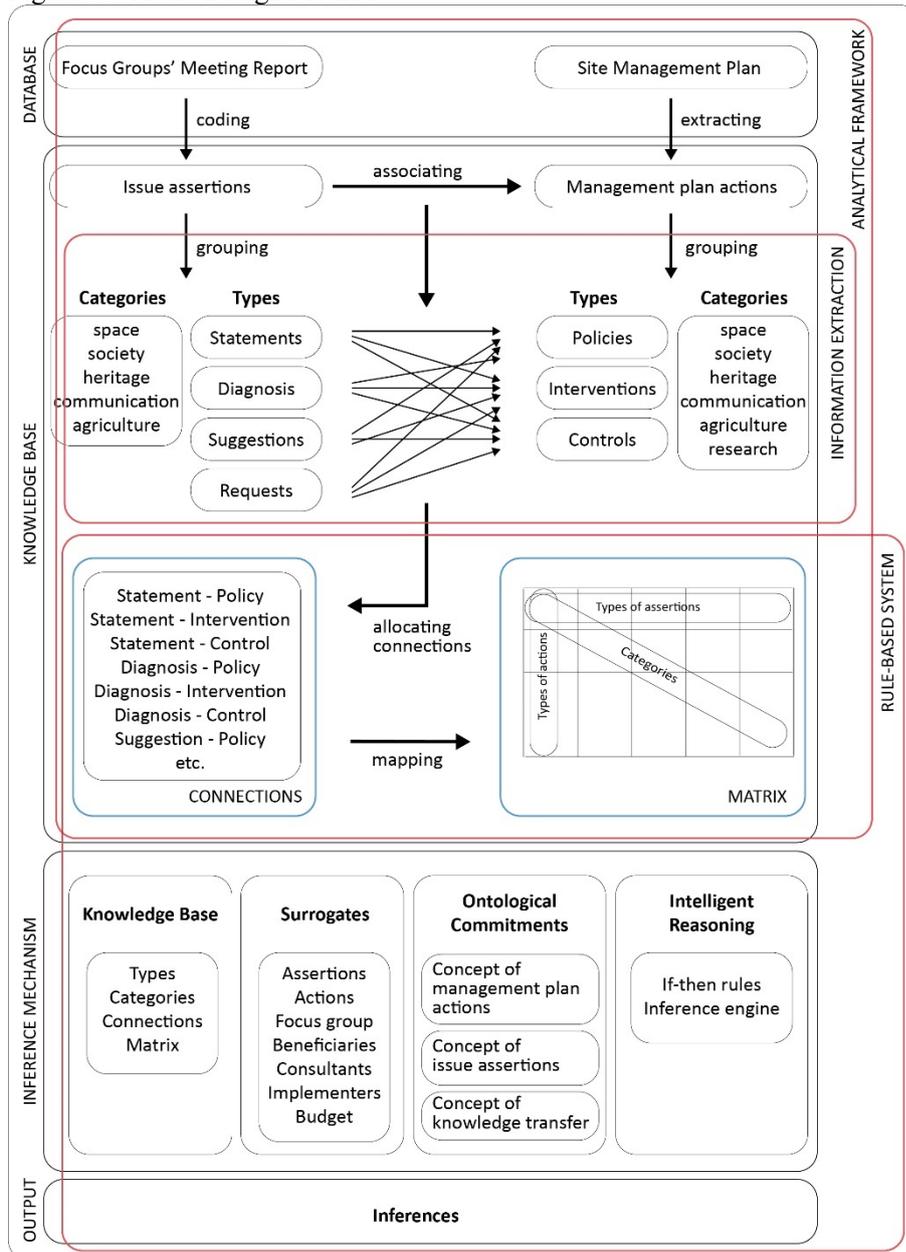
The generated knowledge base is used, then, to make inferences about different levels of knowledge transfer from community focus group meetings to the site management plan using a rule-based method from the knowledge representation domain (Davis et al. 1993; Grosan and Abraham 2011; Musen 2014). Inferences are drawn from *if-then* rules using prescribed concepts (Figure 37).

Figure 37: Methodology Framework



The database is composed of (i) the focus group meetings' report and (ii) the site management plan which includes, respectively, the issue assertions and management plan actions (Figure 38). The Framework method, having 5 key stages: familiarization, identifying a thematic framework, indexing, charting, and mapping & interpretation (Ritchie and Spencer 1994), is utilised to be familiar with the data, and to map them by identifying a thematic framework for indexing, and charting. After the familiarization process, issue assertions are coded and associated with management plan actions regarding their correspondences. This coding system is used to search for actions in the management plan which would, in theory, respond to issues raised by the different stakeholders. Coding issue assertions, extracting management plan actions and associating assertions with actions has been done in the qualitative audit method, Chapter 6, using inductive thematic analysis. However, to generate a knowledge base from the database, an analytical framework (Spencer et al. 2014b) is identified to code, categorise and map the data with the help of Information Extraction (IE) method.

Figure 38: Audit Design Method



Types and categories of issue assertions and management plan actions are extracted using an open-source NLP program called GATE (General Architecture of Text Engineering) that automates the process. The output is the extracted data of types and categories of issue assertions and management plan actions. The knowledge base is created by allocating connections of types and categories into a matrix and it is used as input for the inference mechanism of a rule-based system (Figure 38). The knowledge base is processed by the rule-based system using *if-then* rules. Inferences are drawn within the rule's premises defined by concepts for the knowledge base and the rules come from human experts in this particular domain (Grosan and Abraham 2011). The output of the rule-based system is the set of natural language representations of the results of the application of rules. Considering the size of the knowledge base, the method is applied on an excel spreadsheet using formulas.

The application of above mentioned three methods in this audit design needs to be explained in detail for better understanding. The analytical framework is explained with the descriptions of types and categories of issue assertions and management plan actions. Natural Language Processing and Knowledge Representation methods are explained and illustrated consecutively in the next sections.

7.1. Analytical Framework

The coded issue assertions and their corresponding management plan actions, from Chapter 6, are grouped as categories, and types based on linguistic clues. The categories are developed based on the qualitative assessment results (see Section 6.6) whereas the types are produced considering semantics of sentences.

Categories are defined based on knowledge domains to which issue assertions or management plan actions refer to. These knowledge domains are:

- (i) **Space** - assigned if an assertion or action refers to a physical space present conditions, organization, or design.
- (ii) **Society** - assigned if an assertion or action refers to communities living in or around the heritage site and can include problems related to their social and economic conditions.
- (iii) **Heritage** - assigned if an assertion or action refers to heritage components, values, and their safeguarding.
- (iv) **Communication** - assigned if an assertion or action refers to supportive, educational, or awareness raising activity bridging together the heritage site and local community.
- (v) **Agriculture** - assigned if an assertion or action refers to an agricultural activity since the cultural landscape in the case study area includes agricultural fields.
- (vi) **Research** - assigned if an action refers to conducting studies to evaluate or to extract the current situation in the heritage site.

Types of issue assertions are also assessed and categorised based on their context. These types comprise:

- (i) **Statements** - assigned to assertions which are a clear expression, or a declaration of a given situation.
- (ii) **Diagnosis** - assigned to assertions which are statements followed by a cause.
- (iii) **Suggestions** - assigned to assertions which state a proposed solution to a problem, which may be implicit.
- (iv) **Requests** - assigned to assertions which state a demand, a need, a request, or a necessity with a reason explicit or not in the assertion.

Management plan actions are also assessed and grouped according to their context into the following:

- (i) **Policies** - assigned to actions which are a decision to develop, support, encourage or conduct activities.
- (ii) **Interventions** - assigned to actions which are an implementation of spatial planning decisions.
- (iii) **Controls** - assigned to actions which refer to monitoring or supervising a situation.

7.2. Natural Language Processing

Chowdhury (2003, p.51) defines Natural Language Processing (NLP) as "... an area of research and application that explores how computers can be used to understand and manipulate natural language text or speech to do useful things." NLP works through three main stages, as defined by Dale (2010); **syntax**, **semantics**, and **pragmatics**, or as defined by Chowdhury (2003); **lexical and morphological analysis**, **semantic and discourse analysis**, and **knowledge-based approaches**. Syntax works on the segments of language without reference to meaning which is defined by semantics, whereas pragmatics are about use and context of language (Chowdhury 2003; Dale 2010). Audit Design remains at the syntax level since the generic meanings and context are embedded in the definition of categories and types of assertions or actions. The linguistic references are used to label each entry and to extract these labels as new data which is called **metadata** in computer sciences (Jackson and Moulinier 2007).

Within NLP, information extraction is the process of analysing text searching for useful information and extracting **entities** (segments), **relations** between entities (semantics), and **events** participated by entities (context) (Hobbs and Riloff 2010). In this study, the texts are analysed to extract entities which are then labelled as types and categories.

GATE (General Architecture of Text Engineering), an open-source NLP software comprising different IE systems, such as ANNIE and JAPE is employed for information extraction. The task undertaken was a sentence classification which is the extraction of sentences that contain indicators of categories and types based on entity recognition. ANNIE (A Nearly-New Information Extraction System) application nested in GATE is used for entity recognition. A text document is inputted to GATE and converted into the **corpus** which is the structured text for GATE to process (Figure 39). ANNIE, respectively, run **tokenizer**, **sentence splitter** and **POS tagger** on the corpus (Figure 41). Here, tokenizer detects every word and punctuation as a token, sentence splitter recognizes the sentences and POS tagger adds grammatical attributes to tokens such as *noun*, *verb*, *plural*, *modal*, etc. ANNIE is default to processing English language although there are some plugins available for other languages (Cunningham et al. 2014, chap.15). However, English is the most developed language medium for processing Natural Language in GATE.

The JAPE (Java Annotation Patterns Engine) component, which is an annotation engine based on regular expressions, detects the categories and types defined before. A set of rules have been created; firstly, by manually annotating the categories and types, and then extracting recurrent semantics and linguistics. JAPE transducer annotates the corpus by running these rules which are written in a specific language for the JAPE component using the indicators shown in Table 27, Table 28, and Table 29. JAPE rules, sampled in Figure 40 for illustrative purposes, are not explained in detail since it is out of the scope of this study. However, some of its features essential for re-application of this method are expounded in *Appendix IV: How to use GATE: User Guide for Audit Design*. The final output is an annotation set composed of the defined labels of types and categories (Figure 39, Figure 42).

Since the software requires the medium of documents to be in English language, the data sources should be either in English or translated to English. Because the original language of documents is English in the UK, a preliminary study has been done on a randomly chosen UK management plan to evaluate the accuracy of

the rules. This preliminary validation has greatly improved the entire process, including for what concerns the translation of the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS management plan actions, which were originally in Turkish. The jargon of the UK management plans is carefully assessed and used in translation to minimise translation mistakes and software errors that can come out of it. The essential point here is to use the same jargon to avoid errors on nuances.

Figure 39: Information Extraction process in GATE

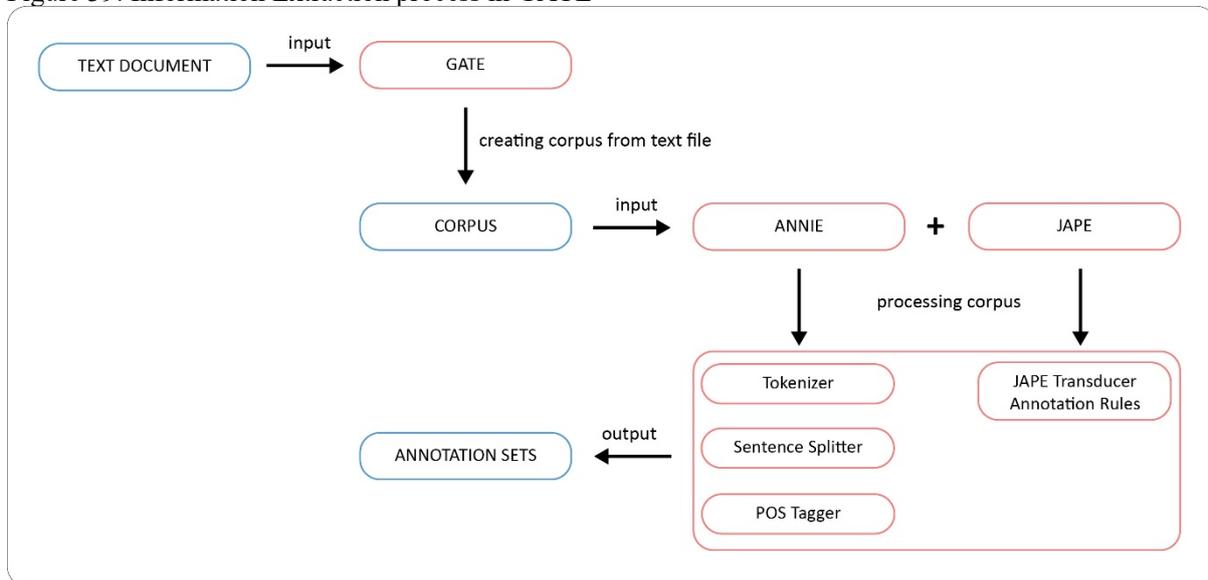


Figure 40: Illustrative JAPE rules for issue assertion types

```

IssueTypeIndicator Phase: categorisation
Input: Lookup Token Sentence
Options: control = appelt Debug = true

Rule: IssueTypeIndicator1
Priority: 50
{
  {Token.string =~ "request"}
  {Token.string =~ "[Nn]ee[ded]"}
  {Token.string =~ "necessary"}
  {Token.string =~ "ask"}
}:requestindicator
-->
:requestindicator.RequestIndicator={rule="IssueTypeIndicator-IssueTypeIndicator1"}

Rule: IssueTypeIndicator2
Priority: 40
{
  {Token.kind==word,Token.category == "MD"}
}:suggestionindicator
-->
:suggestionindicator.SuggestionIndicator={rule="IssueTypeIndicator-IssueTypeIndicator2"}
  
```

Figure 41: ANNIE application in GATE

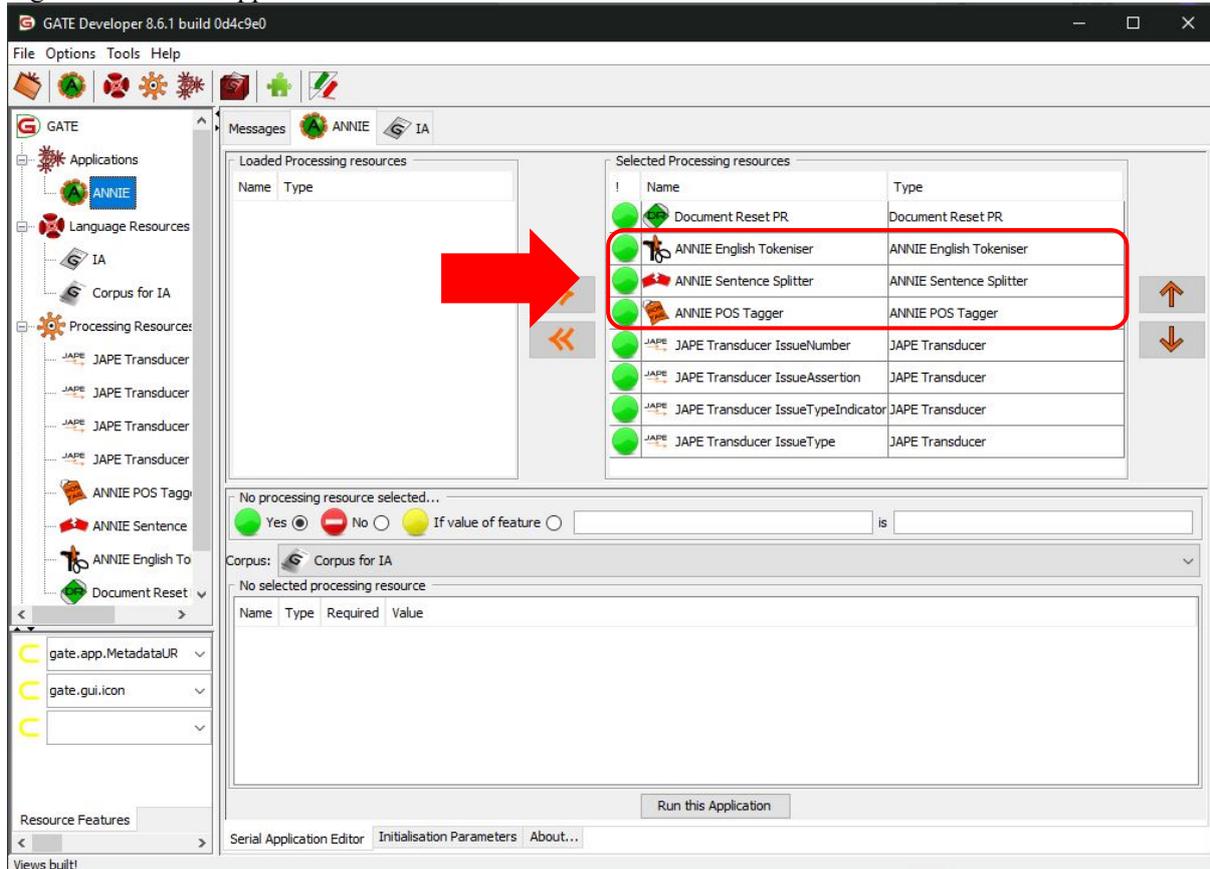


Figure 42: Annotation sets highlighted on text document

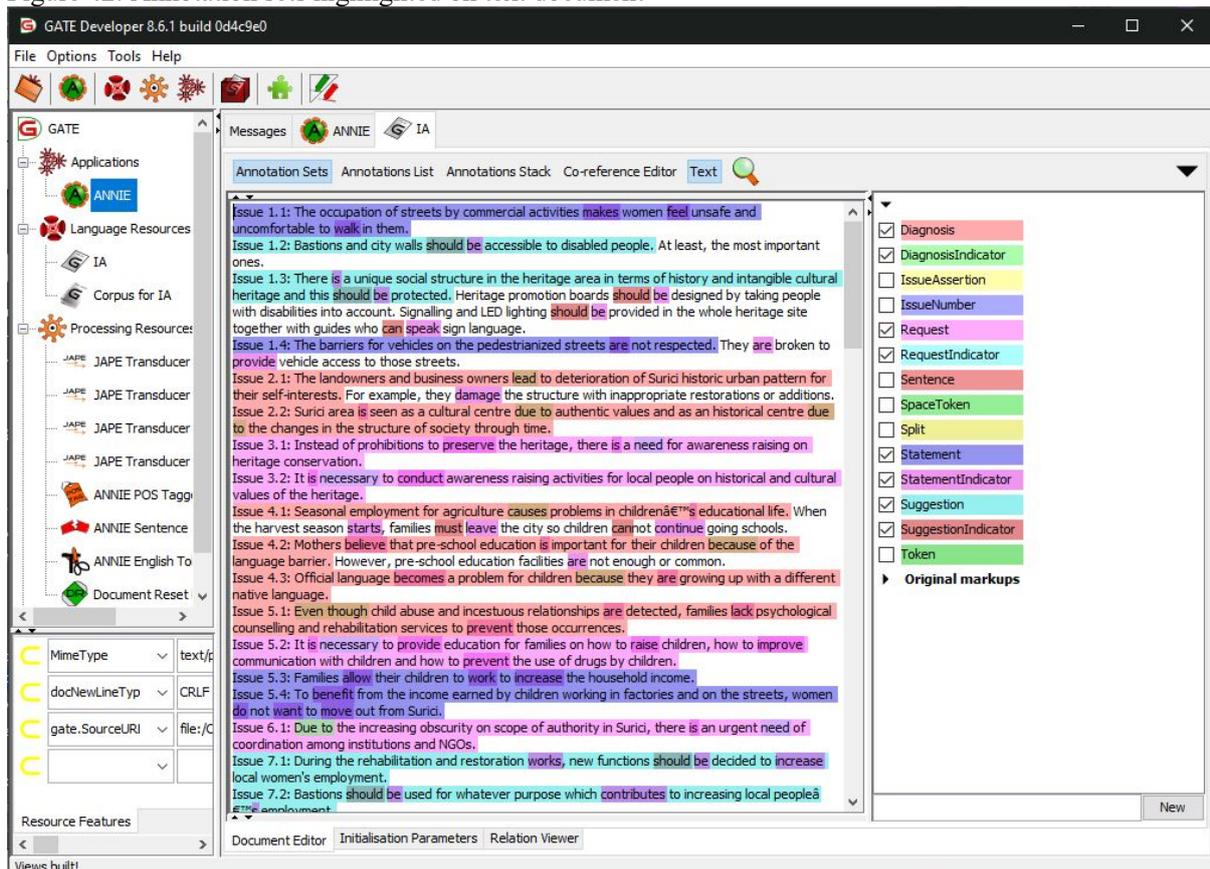


Table 27: Category indicators for issue assertions and management plan actions

Categories	Linguistics			
Space	access/accessibility accessible area/areas assessed by boards camp area centres commercial design development dormitories	evacuation facilities food markets/food stalls gentrification holistic approach houses infrastructure lighting living market clusters	neighbourhoods open areas/open green spaces/open space outdoor parks pedestrianized planning playgrounds public space public use	relocation signalling social housing spatial streets swimming pool ten-eyed bridge transformation transportation youth centre recreation
Society	child/ren disabled people families household income	language local people mothers network NGOs	psychological counselling social social services solidarity	tourists women young people youth
Heritage	authentic authority/ies conservation coordination documentation documenting	functions heritage historic/al history institution/s intangible cultural heritage	integrity legislative migratory birds prohibition project/s restoration	risk route structural structures tourism/touristic
Communication	awareness raising bastions education	local employment improving	introduce rehabilitation	support training
Agriculture	agriculture irrigation	producer production	products re-produce	soil water pollution
Research	analysis/analyses/ analysing survey/surveying monitoring	examining evaluation/evaluating R&D	detection/detecting database measurements	research inspections readings

Table 28: Type indicators for issue assertions

Types	Linguistics		Semantics
Statement	Present tense		Situation
Diagnosis	Because Because of Cause, causes Consequently	Due to Even though Lead to Result in	Situation and its cause
Suggestion	Can May Might	Should Would	Problem (explicit or implicit) and proposed solution
Request	A request Ask for Necessary	Need, needs, needed Request, requested There is a need	Demand and its reason (explicit or implicit)

Table 29: Type indicators for management plan actions

Types	Linguistics	Semantics
Policy	applying policies, conducting educational activities and research, organising activities, introducing sources constituting, developing, providing, spreading, supporting, encouraging policies preserving, prioritizing, prohibiting, mandating policies	Development or support decision
Intervention	conducting planning and design studies, spatial arrangements, preparing plans, allocating functions, assigning areas, implementing placing, determining location, locating, connecting, extending routes, expanding areas creating or establishing areas	Spatial implementation decision
Control	conducting regular studies, analyses, measurements, impact assessment surveying, evaluating, monitoring, follow-up determining, identifying, detecting ensuring, preventing, regulating, stopping	Monitoring / supervision decision

For issue assertion types, GATE annotation sets were compared with the ones manually annotated, in Chapter 6, and the result was 96% accurate. Precision is calculated by the formula (Grishman 2019, p.685):

$$Precision = \frac{\text{number of correct GATE annotations}}{\text{number of GATE annotations}}$$

in which number of correct GATE annotations are 85 and number of GATE annotations are 89 (Table 30).

As a measure of completeness, recall was 0.93 which is calculated by the formula (Grishman 2019, p.685):

$$Recall = \frac{\text{number of correct GATE annotations}}{\text{number of manual annotations}}$$

in which number of manual annotations are 91 (Table 30).

Table 30: Comparison of Manual and GATE annotation for issue assertion types

Issue assertion Types	Number of issue assertions annotated		
	Manual Annotation	GATE Annotation	Correct GATE Annotation
Statement	24	20	20
Diagnosis	18	17	16
Suggestion	26	28	26
Request	23	24	23
Total count	91	89	85

GATE labelled 89 issue assertions out of 91, and four assertions were annotated incorrectly, two statements and two diagnoses, whereas GATE failed to annotate two of the issue assertions (Table 31). GATE identified 'damage' and 'jeopardise' as nouns thus failing to label Issue 24.2 and Issue 24.3 as *Statement* assertions. Issue 3.1 and Issue 13.3 are labelled as *Suggestion* because these sentences include modal verbs (highlighted in Table 31). GATE annotated Issue 2.2 as *Diagnosis* because its sentence includes indicator words: "due to" whereas Issue 22.4 is labelled as *Request* assertion as it consists of the indicator word: "need".

Table 31: Incorrect annotations of GATE on Types of Issue Assertions

Issue Assertions	Manual Annotation	GATE Annotation
Issue 2.2: Surici area is seen as a cultural centre due to authentic values and as an historical centre due to the changes in the structure of society through time.	Statement	Diagnosis
Issue 3.1: Seasonal employment for agriculture causes problems in children's educational life. When the harvest season starts, families must leave the city so children cannot continue going schools.	Diagnosis	Suggestion
Issue 13.3: Local people cannot afford relocation even if the living conditions in Surici push for gentrification.	Statement	Suggestion
Issue 22.4: Improving marketing abilities of producers is important but producers are unable to do marketing due to urgent need for income.	Diagnosis	Request
Issue 24.2: Commercial activities along Tigris River jeopardise the current recreation and social activities of young people.	Statement	-
Issue 24.3: Unregistered activities close to the Ten-Eyed Bridge damage the unity of the Hevsel Gardens and the Tigris Valley.	Statement	-

The software can give errors as well, like in the case of "jeopardise" tagging as a noun, therefore, the accuracy is dependent on both the use of language and the software. For issue assertion categories, the precision of GATE annotations was 81.6% whereas the recall of GATE annotations was 79.7%.

For management plan action types, the comparison between manual and GATE annotations resulted in 95% accuracy. Precision and recall were same since there was not any missing annotation (Table 32). Management plan actions have more complicated sentence structure; therefore, one action sentence might include more than one indicator of different types. For example, Action 2.2.2.4

*Action 2.2.2.4: **Representing** the authentic qualities of the site by **creating** billboards and other materials.*

is annotated as an '*intervention*' by GATE while it was manually annotated as '*policy*'. The indicators here '*representing*' and '*creating*' refer to different types, respectively, policy and intervention. In these cases, GATE requires to specify a priority ordering, leading to choosing that, in general, *intervention* has a priority over *policy* as this is the most common case in our texts.

Table 32: Comparison of Manual and GATE annotation for management plan action types

Management plan action Types	Number of issues annotated		
	Manual Annotation	GATE Annotation	Correct GATE Annotation
Control	44	45	41
Policy	88	87	84
Intervention	57	57	54
Total count	189	189	179

189 management plan action were inputted to GATE and 179 of them annotated correctly. Only 10 of them were misannotated due to the presence of more than one indicator in sentences. If the sentences would have been clearer and focused on the substance, then precision of annotation would be higher.

All the instances of incorrect annotations are given in Table 33, with a colour scheme to articulate the errors of GATE annotation. The ones **highlighted in grey** are the indicators detected by JAPE rules, the **bold ones in black colour** are the indicators of correct label types; however, as aforementioned, priority ordering comes into effect when there are indicators of different types in one action sentence. Therefore, GATE annotations might be incorrect.

Table 33: Incorrect annotations of GATE on Types of Management Plan Actions

MPA	Manual Annotation	GATE Annotation
Action 3.3.1.5: Conduct regular follow-up studies to send children to schools, to increase attendance, and to extend the duration and level of education.	Control	Policy
Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.	Policy	Intervention
Action 3.6.1.2: Place streetlights on main routes and public spaces used by visitors and residents as well as on transportation routes used to access these areas, take inspection and security precautions against possible crimes.	Intervention	Control
Action 5.1.1.1: Conduct restoration and/or reconstruction works for the missing/torn down sections of the city walls in line with the comprehensive restoration projects approved by the Regional Council of Conservation of Cultural Assets and establish a science committee to monitor the implementation process.	Intervention	Control
Action 5.1.2.1: Open the Amida Mound area and the areas defined as special project zones with remains from Roman and other periods in the Reconstruction Plan for Protection within the Inner Castle for scientific and archaeological excavations and arrange these areas as archeo-parks and develop , implement , and monitor projects suitable with the historic cultural landscape.	Intervention	Control
Action 5.1.4.10: Register the monumental trees and prohibit cutting down and unsupervised pruning of the naturally existing trees.	Control	Policy
Action 5.2.2.1: Prohibit activities such as prospecting and/or operating sand quarries and cancel the permits for the operating ones and prepare and implement recovery projects for the affected areas via scientific techniques.	Policy	Intervention
Action 5.2.3.3: Identify and prevent all kinds of negative effects of the built environment and its pollutants on the Tigris River and basin such as debris and excavation dumping sites, garbage disposal fields, sewers etc, continue reparation works for the damage caused by them.	Control	Policy
Action 5.4.2.3: Prepare Strategic Action Plan in which if the cultural heritage elements are saved from natural or unnatural disasters by relocation, strategies are developed on how to redisplay them, and if the cultural heritage elements could not be relocated in natural or unnatural disasters, strategies are developed on how to repair them.	Policy	Intervention
Action 5.7.2.4: Evaluate transformation, renewal, and rehabilitation projects together with surrounding public and/or private properties and develop proper financial models without reimbursement, to provide housing for current rightsholders.	Policy	Control

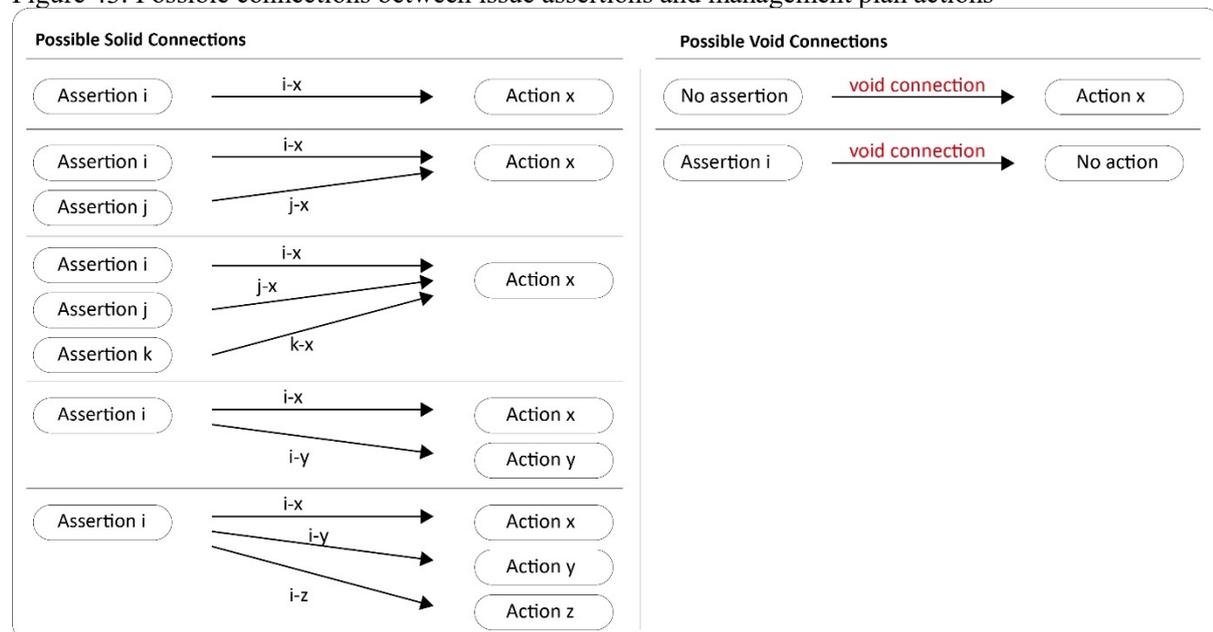
For management plan action categories, the precision of GATE annotations was 83.5% whereas the recall of GATE annotations was 80.4%.

7.3. Connections and Matrix

Associations between management plan actions and issue assertions were created in the qualitative audit method proposal (see Chapter 6) to gauge knowledge transfer from the community focus groups to the management plan. These associations were allocated to create connections between types of assertions and actions, and categories of assertions and actions. In the case of Diyarbakir Fortress and Hevsel Gardens WHS, there are 91 issue assertions and 189 management plan actions, and 220 connections were established between them. These connections can be classified as solid and void connections, meaning a solid connection can be established if both action and assertion are present whereas a void connection can be established if one of them is missing. Out of 220 connections, 177 of them are solid connections and remaining 43 of them are void connections.

Possible connections are given in the Figure 43, in which connections are shown with arrows between issue assertions and management plan actions. For instance, if one issue assertion is addressed by only one action, it creates one solid connection (i-x), or if two issue assertions are addressed by only one action, it creates two different solid connections (i-x and j-x), or if one action addresses three different assertions, it produces three solid connections (i-x, j-x and k-x), etc. However, an action might not address to any issue assertions, or an assertion might not be addressed by any actions, in both cases a void connection is established.

Figure 43: Possible connections between issue assertions and management plan actions



The last step of the framework analysis is to create a matrix of connections by mapping types and categories of issue assertions and management plan actions to consider possible relationships between them later using a knowledge representation method. The matrix comprises all the connections between types and categories of assertions and actions.

In Table 34, which is the matrix of mapped connections for Diyarbakir Fortress and Hevsel Gardens WHS, the columns represent the 3 types of management plan actions while the rows represent the 4 types of issue assertions. Each box represents a connection e.g., the first box represents the connection "statement-control".

Table 34: The matrix of connections

	Action Type: Control	Action Type: Intervention	Action Type: Policy	Absent actions
Assertion Type: Statement	14 solid connections	6 solid connections	21 solid connections	8 void connections
	space – space Issue 1.4 – Action 3.4.3.2 space – heritage Issue 24.1 – Action 3.5.1.1 Issue 24.2 – Action 3.5.1.2 Issue 24.2 – Action 5.1.4.5 Issue 24.3 – Action 5.2.2.6 heritage – heritage Issue 2.2 – Action 2.2.2.1 heritage – agriculture Issue 18.1 – Action 5.1.4.11 agriculture – space Issue 25.1 – Action 3.4.1.2 Issue 25.1 – Action 5.2.3.2 Issue 25.1 – Action 5.2.3.3 agriculture – research Issue 25.1 – Action 3.4.2.1 agriculture – agriculture Issue 25.1 – Action 3.4.2.4 Issue 25.1 – Action 3.4.2.8 Issue 25.1 – Action 5.1.4.6	space – space Issue 1.4 – Action 5.6.1.5 Issue 1.1 – Action 5.6.1.6 society – space Issue 10.1 – Action 3.6.1.2 heritage – heritage Issue 2.2 – Action 2.2.2.3 agriculture – space Issue 25.1 – Action 3.4.1.3 Issue 25.1 – Action 5.1.4.16	space – space Issue 11.3 – Action 5.1.5.6 space – heritage Issue 24.3 – Action 5.1.4.13 space – communication Issue 13.3 – Action 5.7.1.3 Issue 11.1 – Action 5.7.2.6 society – society Issue 4.3 – Action 3.1.1.3 Issue 4.4 – Action 3.1.1.3 society – communication Issue 14.1 – Action 3.2.1.1 Issue 14.1 – Action 3.2.1.2 Issue 14.1 – Action 3.2.1.3 heritage – heritage Issue 29.2 – Action 1.1.3.1 Issue 29.2 – Action 1.1.3.2 Issue 29.2 – Action 1.1.3.3 Issue 29.2 – Action 1.1.3.4 Issue 2.2 – Action 2.2.2.2 Issue 29.2 – Action 2.3.1.1 Issue 29.2 – Action 5.1.2.4 agriculture – space Issue 25.1 – Action 5.1.4.17 Issue 25.1 – Action 5.2.2.1 agriculture – communication Issue 25.1 – Action 3.4.1.1 Issue 25.1 – Action 3.4.4.1 Issue 25.1 – Action 3.4.4.2	space Issue 19.4 – No actions Issue 19.6 – No actions Issue 31.1 – No actions Issue 31.2 – No actions society Issue 10.3 – No actions Issue 12.1 – No actions Issue 12.2 – No actions Issue 12.3 – No actions
Assertion Type: Suggestion	7 solid connections	10 solid connections	21 solid connections	8 void connections
	heritage – heritage Issue 29.3 – Action 2.3.1.4 Issue 33.1 – Action 3.6.1.1 Issue 23.3 – Action 5.1.4.8 Issue 15.2 – Action 5.2.2.3 communication – space Issue 6.2 – Action 5.1.1.4 agriculture – research Issue 21.2 – Action 2.1.3.1 agriculture – agriculture Issue 16.3 – Action 5.2.3.1	space – space Issue 30.2 – Action 2.1.1.4 Issue 1.2 – Action 5.6.1.6 Issue 1.3 – Action 5.6.1.6 space – heritage Issue 30.2 – Action 5.2.1.2 heritage – research Issue 28.2 – Action 6.1.1.3 communication – space Issue 6.1 – Action 3.2.1.5 Issue 16.1 – Action 5.3.2.1 agriculture – space Issue 16.3 – Action 5.5.1.1 Issue 16.3 – Action 5.5.1.7 agriculture – agriculture Issue 16.3 – Action 5.3.2.3	space – space Issue 13.1 – Action 5.7.1.1 heritage – heritage Issue 32.1 – Action 1.1.1.4 Issue 29.3 – Action 5.2.2.7 Issue 28.2 – Action 6.1.1.7 heritage – communication Issue 29.3 – Action 2.2.3.5 Issue 29.3 – Action 3.4.4.3 Issue 28.2 – Action 6.1.1.2 Issue 28.2 – Action 6.1.1.4 heritage – agriculture Issue 23.3 – Action 5.1.4.14 communication – communication Issue 22.2 – Action 2.1.1.3 Issue 22.3 – Action 2.1.1.5 Issue 22.2 – Action 2.1.1.6 Issue 6.1 – Action 3.2.1.4 agriculture – research Issue 16.2 – Action 2.1.1.7 Issue 16.3 – Action 4.1.1.1 Issue 16.3 – Action 4.1.1.2 agriculture – communication Issue 21.2 – Action 3.4.2.6 Issue 16.3 – Action 5.1.4.3 agriculture – agriculture Issue 16.3 – Action 2.2.1.2 Issue 16.3 – Action 2.2.1.3 Issue 16.2 – Action 3.4.2.7	space Issue 9.1 – No actions Issue 9.4 – No actions Issue 19.2 – No actions Issue 19.3 – No actions Issue 30.1 – No actions society Issue 10.4 – No actions heritage Issue 18.2 – No actions communication Issue 17.4 – No actions

	Action Type: Control	Action Type: Intervention	Action Type: Policy	Absent actions
Assertion Type: Diagnosis	15 solid connections	5 solid connections	16 solid connections	3 void connections
	space – research Issue 8.1 – Action 2.1.2.2 society – society Issue 3.1 – Action 3.3.1.5 heritage – research Issue 23.1 – Action 5.1.4.4 Issue 20.1 – Action 5.4.1.4 heritage – heritage Issue 2.1 – Action 3.5.1.3 Issue 2.1 – Action 3.5.1.4 Issue 2.1 – Action 5.1.3.2 Issue 2.1 – Action 5.1.3.3 Issue 23.2 – Action 5.1.4.1 Issue 2.1 – Action 5.1.5.3 Issue 2.1 – Action 5.1.5.4 Issue 20.1 – Action 5.4.2.1 agriculture – research Issue 21.1 – Action 3.4.2.2 Issue 21.1 – Action 3.4.2.3 agriculture – agriculture Issue 21.1 – Action 5.1.4.7	heritage – research Issue 20.1 – Action 5.4.1.1 heritage – heritage Issue 2.1 – Action 5.1.5.7 Issue 15.1 – Action 5.2.1.1 Issue 2.1 – Action 5.3.3.3 Issue 28.1 – Action 6.1.1.1	space – space Issue 13.2 – Action 5.7.1.2 space – communication Issue 13.4 – Action 5.7.2.1 Issue 13.5 – Action 5.7.2.4 Issue 13.5 – Action 5.7.2.5 society – society Issue 4.1 – Action 3.3.1.1 society – communication Issue 3.1 – Action 3.3.1.4 Issue 3.1 – Action 3.3.1.6 heritage – heritage Issue 2.1 – Action 5.1.3.1 Issue 23.2 – Action 5.1.4.2 Issue 2.1 – Action 5.1.5.2 Issue 20.1 – Action 5.4.1.2 Issue 20.1 – Action 5.4.1.3 Issue 20.1 – Action 5.4.2.2 Issue 20.1 – Action 5.4.2.3 communication – research Issue 22.4 – Action 2.1.1.2 agriculture – agriculture Issue 17.1 – Action 3.4.2.5	society Issue 10.2 – No actions Issue 3.2 – No actions Issue 3.3 – No actions
Assertion Type: Request	5 solid connections	32 solid connections	25 solid connections	7 void connections
	space – research Issue 8.2 – Action 2.1.2.1 Issue 26.1 – Action 5.6.1.8 heritage – heritage Issue 29.1 – Action 1.1.2.4 Issue 32.2 – Action 5.1.1.5 Issue 29.1 – Action 5.1.4.10	space – space Issue 26.2 – Action 3.6.1.3 Issue 26.1 – Action 5.6.1.1 Issue 26.1 – Action 5.6.1.2 Issue 26.1 – Action 5.6.1.3 Issue 26.1 – Action 5.6.1.4 Issue 26.1 – Action 5.6.1.7 space – heritage Issue 30.3 – Action 1.1.1.2 Issue 30.3 – Action 5.2.1.3 heritage – space Issue 35.1 – Action 5.5.1.2 Issue 35.1 – Action 5.5.1.3 Issue 35.1 – Action 5.5.1.4 Issue 35.1 – Action 5.5.1.5 Issue 35.1 – Action 5.5.1.6 Issue 35.1 – Action 5.5.1.8 heritage – heritage Issue 29.1 – Action 1.1.2.1 Issue 29.1 – Action 1.1.2.2 Issue 29.1 – Action 1.1.2.3 Issue 35.1 – Action 2.2.1.1 Issue 32.2 – Action 5.1.1.1 Issue 32.2 – Action 5.1.1.2 Issue 5.1 – Action 5.1.1.3 Issue 32.2 – Action 5.1.2.1 Issue 32.2 – Action 5.1.2.2 Issue 32.2 – Action 5.1.2.3 Issue 29.1 – Action 5.1.4.9 Issue 32.2 – Action 5.1.5.1 Issue 32.2 – Action 5.1.5.5 Issue 5.1 – Action 5.3.2.2 Issue 29.1 – Action 6.1.1.5 Issue 29.1 – Action 6.1.1.6 communication – space Issue 22.1 – Action 5.3.1.2 agriculture – agriculture Issue 17.2 – Action 5.3.1.1	space – research Issue 19.1 – Action 4.1.1.3 space – heritage Issue 30.3 – Action 1.1.1.1 space – communication Issue 26.1 – Action 3.4.3.1 society – society Issue 4.2 – Action 3.3.1.1 heritage – research Issue 35.1 – Action 4.1.1.4 Issue 35.1 – Action 4.1.1.5 Issue 35.1 – Action 4.1.1.6 Issue 35.1 – Action 4.1.1.7 Issue 29.1 – Action 5.2.2.5 heritage – heritage Issue 34.1 – Action 1.1.1.3 Issue 29.1 – Action 1.1.2.5 Issue 7.1 – Action 2.2.3.4 Issue 29.1 – Action 2.3.1.2 Issue 34.1 – Action 3.5.1.5 Issue 32.2 – Action 5.1.3.4 Issue 29.1 – Action 5.1.4.15 Issue 32.2 – Action 5.1.5.8 Issue 29.1 – Action 5.2.2.2 heritage – communication Issue 35.1 – Action 2.2.3.3 Issue 35.1 – Action 2.3.2.2 Issue 35.1 – Action 2.3.2.3 Issue 34.1 – Action 3.5.1.6 communication – communication Issue 27.1 – Action 2.2.2.4 Issue 27.2 – Action 2.2.2.4 agriculture – agriculture Issue 17.2 – Action 2.1.3.2	space Issue 9.2 – No actions Issue 9.3 – No actions Issue 11.2 – No actions Issue 19.5 – No actions society Issue 12.4 – No actions Issue 12.5 – No actions agriculture Issue 17.3 – No actions

	Action Type: Control	Action Type: Intervention	Action Type: Policy	Absent actions
Absent assertions	3 void connections	6 void connections	8 void connections	
	research Action 3.1.1.2 – No assertions Action 5.1.4.12 – No assertions Action 5.7.2.3 – No assertions	space Action 2.3.2.4 – No assertions Action 5.3.3.1 – No assertions Action 5.3.3.2 – No assertions Action 5.7.2.2 – No assertions agriculture Action 2.1.1.1 – No assertions Action 2.1.3.3 – No assertions	society Action 3.3.1.2 – No assertions research Action 2.2.3.1 – No assertions communication Action 2.1.3.4 – No assertions Action 2.2.3.2 – No assertions Action 2.3.1.3 – No assertions Action 2.3.2.1 – No assertions Action 3.1.1.1 – No assertions Action 3.3.1.3 – No assertions	

However, in each box there are the categorical connections e.g., "space-space" or "space-heritage". There are 18 different connections of types; 12 solid connections and 6 void connections. The last column and the last row of the matrix show void connections where either issue assertion or management plan action is missing. The matrix of the connections constitutes the knowledge base which is going to be processed by the knowledge representation method.

7.4. Knowledge Representation Method

Knowledge representation can: (i) provide surrogates, (ii) impose ontological commitments, (iii) comprise a theory of intelligent reasoning, (iv) provide a medium for efficient computation, and (v) provide a medium of expression and communication (Davis et al. 1993). A surrogate is a formal substitute of the intended referent in the world, for instance, actions, assertions, budget, beneficiaries, etc. are all atomic surrogates in the knowledge base. Ontological commitments constraint what to include in the knowledge base. Assessing only the management plan actions which are addressing the issue assertions raised by community stakeholders is an example of ontological commitment. The theory of intelligent reasoning is used for deriving a set of inferences that the representation sanctions or recommends. In this study, inferences are drawn from the rules defined in the knowledge base and the rules come from human experts in this particular domain (rule-based system or expert system) (Grosan and Abraham 2011). Due to the moderate size of the data, this study uses excel spreadsheet as a medium for efficient computation. However, a dedicated interface can be proposed in future studies if the method is proved to be robust. The language of the knowledge base is specific to this study and its context.

7.4.1. Surrogates

The surrogates are representations of reality in the knowledge base in which they symbolise the intended referent. In this study, we defined surrogates as follows:

Issue assertions: sayings of the stakeholders in focus group meetings,

Management Plan Actions: actions defined in the site management plan,

Focus groups: groups of stakeholders who attended community meetings,

Beneficiaries: institutions and/or individuals defined as target groups of a specific action in the site management plan,

Consultants: institutions and/or individuals defined as the stakeholders of a specific action in the site management plan,

Implementers: institutions and/or individuals defined as the responsible actors of a specific action in the site management plan,

Budget: the suggested amount of money assigned for a specific action or actions,

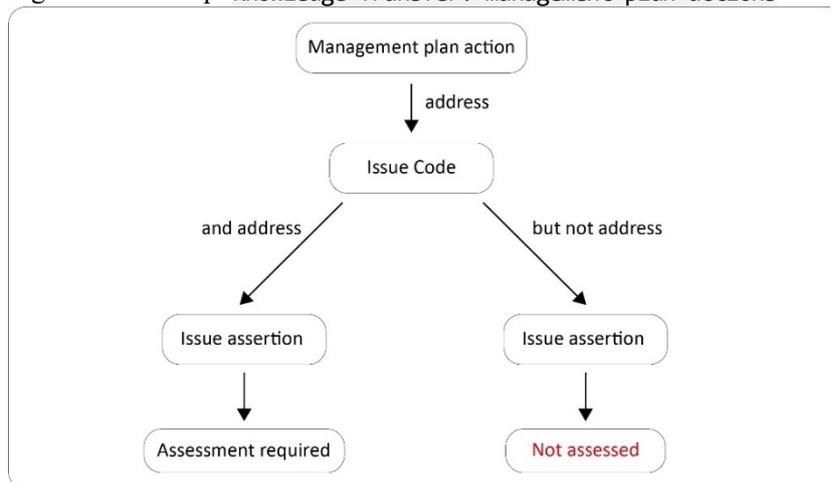
Outputs: monitoring indicators assigned to a specific management plan action to follow-up its implementation.

7.4.2. Ontological Commitments

The selection of the relevant data for analysis is achieved by making ontological commitments which are a set of decisions about what is relevant and needs to be recorded in the knowledge base. In this study, the following three sets of concepts are offered: (i) knowledge transfer: management plan actions, (ii) knowledge transfer: issue assertions, and (iii) management plan actions. Each concept explains how to make choices to include or exclude the data into knowledge base and how to represent them in the knowledge base.

The first concept describes how to decide whether knowledge transfer should be assessed for a management plan action (Figure 44). If management plan action addresses an issue code, but not address to an issue assertion within this issue code, it is not assessed. Knowledge transfer is only assessed if the action addresses to an issue assertion.

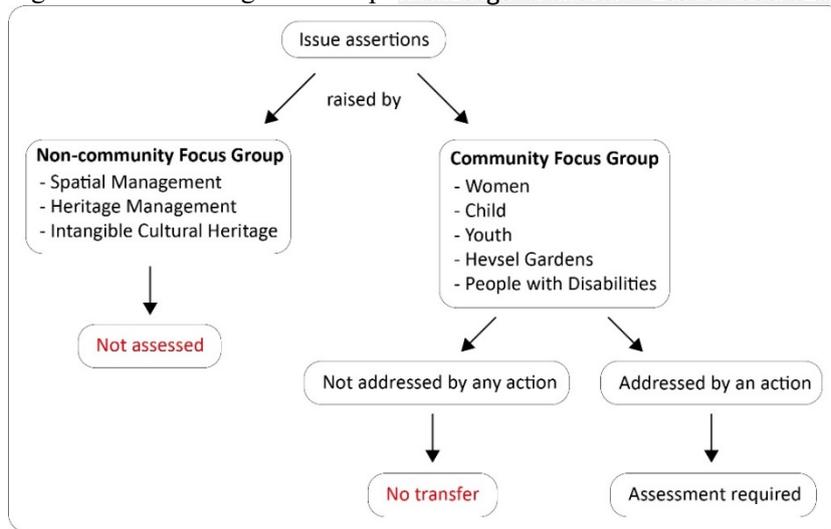
Figure 44: Concept Knowledge Transfer: management plan actions



Then, the assessment of issue assertions is made regarding the actors who raise them; community or non-community focus groups. The concept knowledge transfer: issue assertions (Figure 45) describes how to distinguish between issue assertions that have been assessed or not, and thus whether one can conclude that there has been some form of knowledge transfer from the focus groups. If the issue assertion is raised by one of the non-community focus groups, then it is not assessed, otherwise it is included in the assessment. However, knowledge transfer should be examined in two directions; examining management plan actions and examining issue assertions. Until here, only issue assertions addressed by a management plan action are considered. If an issue assertion is addressed by any management plan action, is considered evidence of the

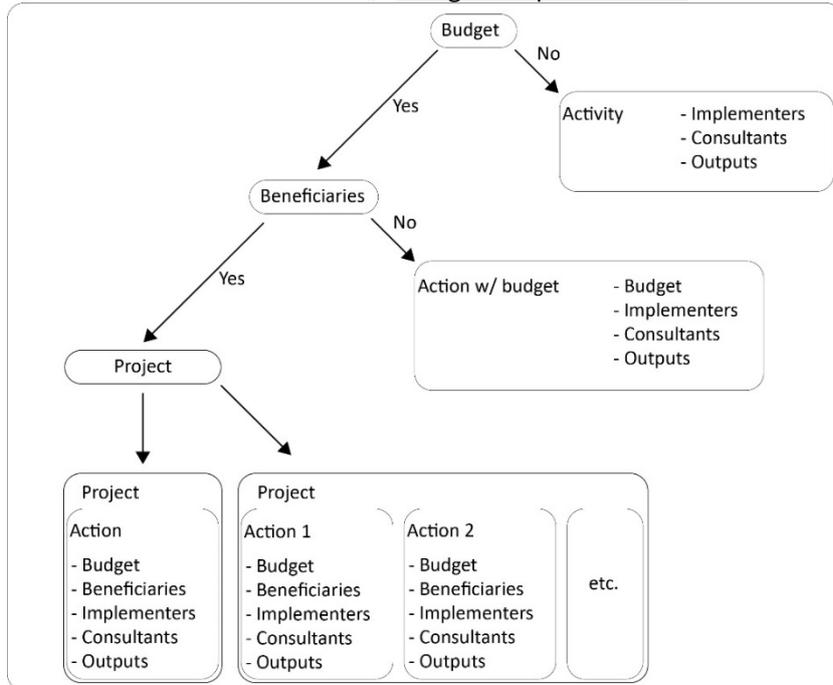
existence of knowledge transfer. On the other hand, if an issue assertion is not addressed by any management plan actions, it is safe to conclude that knowledge is not transferred (Figure 45).

Figure 45: Describing the concept knowledge transfer: issue assertions



Management plan actions can be in three different forms: activities, actions with budget, and projects. In order to assess an action, the concept **management plan actions** (Figure 46) offers to look at the budget first, and if there is no budget assigned to an action, then it means that the action is an **activity**. If there is a budget assigned, then the next question is whether there are defined beneficiaries for the action or not. If there are no beneficiaries defined, then the action is an **action with budget**. However, if there are beneficiaries defined for the action, it means that the action is a **project** itself, or it is one of the actions which forms part of a larger project. This concept also indicates the attributes of each form of actions. If the action is an **activity**, then the attributes to consider are implementers, consultants, and outputs. If the action is an **action with budget**, then budget is also considered in addition to the attributes of an activity. If the action is a **project**, then beneficiaries are included as the additional attribute to examination.

Figure 46: Describing the concept management plan actions



In this study, firstly, a knowledge base is generated by using the database of the site management plan and the focus groups meeting’s report (Figure 47). Issue assertions and management plan actions are extracted from those documents, connections between them are created, and they are grouped based on types and categories.

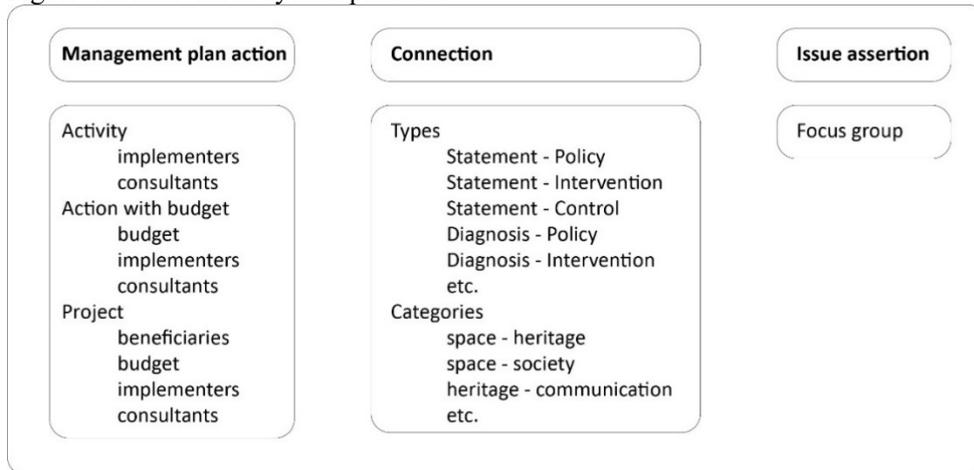
Figure 47: Knowledge Base logged on Excel spreadsheet

Geographical Local	Issue Family	Issue No	Issue Name	FG	Focus Group Issue assertion	Issue Categories	Issue types	Management plan actions	Action Categories	Action types	Budget	Target Group	
Diyarbakir Fortress and Archaeological Site	Issue Family 1	Issue Code 1	Accessibility	V	Issue 1.1 The occupation of street by covered spaces	Statement	Suggestion	Action 3.1.15. Creating a safe and accessible space	Information	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 1	Issue Code 1	Accessibility	D	Issue 1.2. Entrances and city walls should be a space	Statement	Suggestion			Control	\$	350,000	
Diyarbakir Fortress and Archaeological Site	Issue Family 1	Issue Code 1	Accessibility	D	Issue 1.3. There is a unique visual character in all spaces	Statement	Suggestion			Control	\$	250,000	
Diyarbakir Fortress and Archaeological Site	Issue Family 1	Issue Code 1	Accessibility	SM HM	Issue 1.4. The barriers for vehicles on the pedestrian spaces	Statement	Request	Action 3.4.2. Righting access lanes of 4 spaces	Control	Activity	\$	1,500,000	Visitors, Residents, Users
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric	HM	Issue 2.1. The badness and badness some heritage	Statement	Request	Action 3.1.15. Encouraging use of traditional heritage	Information	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.5.3. Ensuring the use of important heritage	Control	Activity	\$	250,000	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.5.4. Encouraging use of traditional heritage	Information	Activity	\$	350,000	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.5.7. Identifying and restoring street heritage	Information	Activity	\$	5,000,000	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.5.9. Preparing Urban Design Proj heritage	Information	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.14. Conducting regular inspection heritage	Control	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.14. Conducting inspection at site heritage	Control	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.5.8. Promoting the structural quality heritage	Policy	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.5.9. Consulting Regional Council heritage	Control	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 3.1.3.3. Consulting Regional Council heritage	Control	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric	HM	Issue 2.2. Public areas to use as a cultural and heritage	Statement	Request	Action 2.2.1. Regular monitoring of public heritage	Control	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 2.2.2. Giving incentives for tourism heritage	Policy	Activity	\$	1,500,000	Tourism entrepreneurs, Tourism
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric					Action 2.2.2.2. Sorting up visitor circulation heritage	Information	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 2	Authenticity of fabric	SM	Issue 3.1.1. Lack of prohibitions to preserve communication	Request	Request	Action 3.2.1.4. Encouraging the authentic communication	Information	Activity	\$	300,000	Visitors, Professionals, Tourism
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 3	Awareness raising on heritage	HM	Issue 3.2. It is necessary to conduct awareness communication	Request	Request			Control	\$	1,000,000	Children, Disadvantaged groups
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 4	Child Education	V	Issue 4.1. Successful employment for agricultural society	Statement	Request	Action 3.3.14. Keeping children on improving communication	Policy	Control	\$	1,000,000	Children, Disadvantaged groups
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 4	Child Education	C	Issue 4.2. Mothers believe that pre-school is society	Statement	Request	Action 3.3.15. Supporting activities to social communication	Policy	Control	\$	1,000,000	Children, Disadvantaged groups
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 4	Child Education	V/C	Issue 4.3. Official language becomes a problem society	Statement	Request	No action		Control	\$	No action	
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 5	Child labor and abuse					Action 3.1.2. Conducting activities to local society	Policy	Activity	\$	150,000	Young people, Children, Disadv
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 5	Child labor and abuse					Action 3.1.3. Providing educational activities communication	Policy	Activity	\$	580,000	Young people, Children, Disadv
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 5	Child labor and abuse	V/C	Issue 5.1. Even though child abuse and decent society	Statement	Request	Action 3.1.14. Constructing neighborhood society	Policy	Activity	\$	580,000	Young people, Children, Disadv
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 5	Child labor and abuse	C SM	Issue 5.2. It is necessary to provide educational society	Statement	Request			Control	\$	580,000	Young people, Children, Disadv
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 5	Child labor and abuse					Issue 5.3. Families allow their children to work society	Statement	Control	\$	1,462,000	Economically active disa
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 5	Child labor and abuse	V	Issue 5.4. To benefit from the income control society	Statement	Request	Action 3.1.13. Increasing qualified workforce society	Policy	Activity	\$	200,000	Economically active disa
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 6	Coordination	SM HM	Issue 6.1. Due to the increasing obesity on heritage	Request	Request	Action 5.1.13. Preparing and implementing the heritage	Information	Activity	\$	No beneficiaries	
Diyarbakir Fortress and Archaeological Site	Issue Family 3	Issue Code 6	Coordination					Action 5.3.2.2. Preparing and implementing heritage	Information	Activity	\$	3,000,000	
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 2.2.1.5. Encouraging to implemented records	Policy	Activity	\$	170,000	Tourism entrepreneurs, Tourism
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 2.2.2. Developing local cooperative communication	Policy	Activity	\$	200,000	Tourism entrepreneurs, Tourism, ind
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 2.3.1.3. Organizing handcraft master communication	Policy	Activity	\$	632,000	Craftsmen, Economically
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 2.3.2.1. Establishing role cooperative communication	Policy	Activity	\$	350,000	Craftsmen in the management pl
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 2.3.2.4. Creating areas for arts and space	Information	Activity	\$	200,000	Craftsmen in the management pl
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 3.1.11. Applying policies to transfer communication	Policy	Activity	\$	1,462,000	Economically active disa
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 3.1.12. Conducting survey to detect records	Control	Activity	\$	1,462,000	Economically active disa
Diyarbakir Fortress and Archaeological Site	Issue Family 2	Issue Code 7	Employment in city					Action 3.1.3.1. Conducting planning and design space	Information	Activity	\$	200,000	

7.4.3. The theory of intelligent reasoning

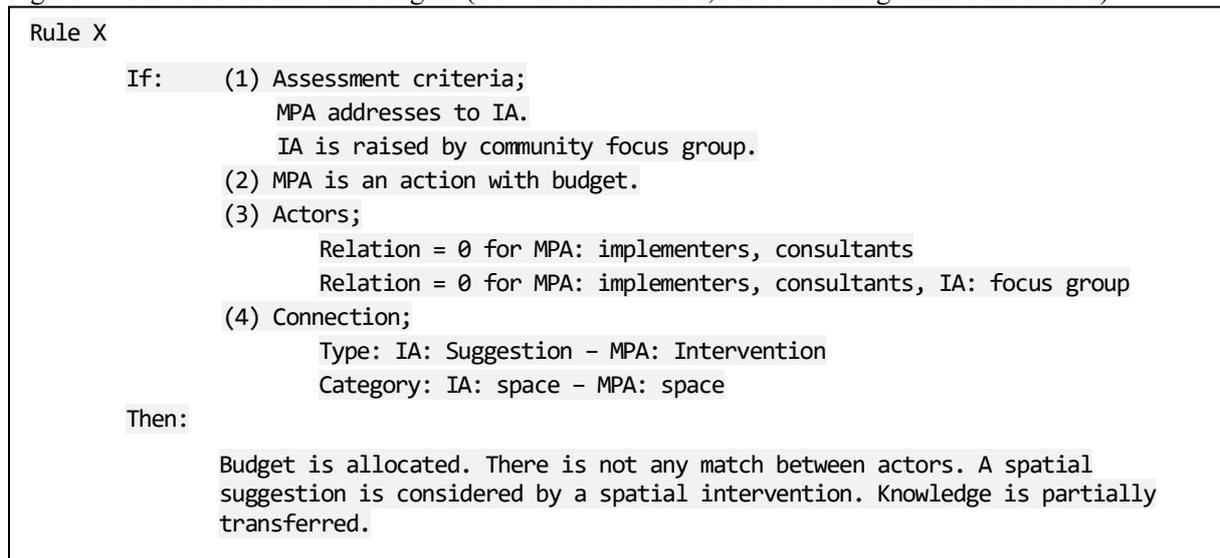
A rule-based system is composed by rules, which have premises and a conclusion, and a rule interpreter that derives new knowledge from data patterns triggering some rules’ premises (Musen 2014). This study uses forward-chaining method to reach conclusions where it starts with the available data to be examined and reaches a conclusion applying the rules (Grosan and Abraham 2011). Rules’ premises are connections and attributes of management plan actions and issue assertions (Figure 48).

Figure 48: Rule-based system premises



An example of a rule is given in Figure 49: if the premises of this rule are true, i.e., (1) the criteria are valid for the assessment, (2) the management plan action is an action with budget, (3) there are no relations between actors, and (4) the connection of issue assertion type and management plan action type is "Suggestion – Intervention", and the connection of issue assertion category and management plan action category is "space – space", then it concludes that knowledge is transferred from community to the management plan and makes an inference on the level of knowledge transfer.

Figure 49: Rule for the inference engine (IA = Issue Assertion, MPA = Management Plan Action)



Such rules allow to infer whether knowledge is transferred. There are 12 major inferences that are pre-defined based on the previous qualitative data analysis (Table 35). Connections determine the main inferences, e.g., *statement – intervention* and *statement – policy* connections depend on the context of statement whereas a *statement – control* connection can refer to knowledge transfer if the control follows the statement. Connections; *suggestion – control*, *suggestion – policy* and *suggestion – intervention* as well as connections; *diagnosis – control*, *diagnosis – policy* and *diagnosis - intervention* can result in knowledge transfer if the connected control, policy, or intervention actions answer specifically to the suggestion or to

the diagnosis assertion. On the other hand, connections for request assertions are always contextual unless a specific control, intervention, or policy action is explicitly requested in them.

Table 35: Inferences based on connections of action and assertion types

Connection	Inferences based on connections
Statement - Intervention	Contextual
Statement - Control	Positive, if control follows statement.
Statement - Policy	Contextual
Suggestion - Intervention	Positive, if intervention follows suggestion.
Suggestion - Control	Positive, if suggestion is control.
Suggestion - Policy	Positive, if suggestion is policy.
Diagnosis - Intervention	Positive, if intervention solved the problem.
Diagnosis - Control	Positive, if control check on the problem.
Diagnosis - Policy	Positive, if policy solves the problem.
Request - Intervention	Contextual, unless intervention explicitly requested.
Request - Control	Contextual, unless control explicitly requested.
Request - Policy	Contextual, unless policy explicitly requested.

7.5. Inferences

Microsoft Excel formulas and macros were used to encode the rule-based system developed for this study, considering the moderate size of the knowledge base and the ease of use of Excel spreadsheets. A dedicated interface can be proposed in future studies if the method is proved to be robust.

The very first step was to formulate the written rules and previously defined concepts in excel formula arrays. Formulas were created for; (i) assessment criteria and different forms of management plan actions (Box 1), (ii) budget information (Box 2), (iii) comparison of actors (Box 3, Box 4), (iv) content of connections (Box 5), and (v) the level of knowledge transfer (Box 6).

7.5.1. Assessment Criteria and Forms of management plan actions

In the first step, the first formula decides whether the connection is going to be assessed based on the concept `knowledge transfer: issue assertions` by looking at the focus groups who raised the issue (Box 1, PART I). If the issue assertion is raised by one of the community stakeholders, the formula searches for actions addressing to the issue assertion based on the concept `knowledge transfer: management plan actions` (Box 1, PART II). If management plan actions are found, the formula continues the evaluation and determines the form of the corresponding management plan action based on the concept `management plan actions` (Box 1, PART III).

Box 1: Formula for the evaluations based on concepts.

```
=IF(SUMPRODUCT(--ISNUMBER(SEARCH(Tables[FG],F2)))>0, PART I
(IF(J2="No actions", "No transfer", PART II
(IFNA(IFS(N2="Activity", "activity",N2="Action w/ budget", PART III
"action with budget"), "project"))), "not assessed"))
```

7.5.2. Budget information

In another column, a second formula (Box 2) is applied to the results of the first formula (Box 1). This last formula of the first step extracts the inferences as Natural Language Representations. Inference rules for this step are presented in Table 36 and its corresponding inference rule formula is presented in Box 2 (PART IV).

Table 36: Inference rules for management plan actions

Management Plan Action form	Natural Language Representation
Action with budget	Budget allocated.
Activity	No budget allocated.
No transfer	No transfer
Not assessed	not assessed
Project	Budget allocated and explained.

Box 2: Formula for the rules described in Table 36.

```
=VLOOKUP(AA110, Table6[MPA], 2) PART IV
```

7.5.3. Comparison of actors

In the second step of the execution, the third formula compares the actors based on the form of the management plan action under evaluation. Actor comparison is two-fold regarding the pairings; (i) collating actors of management plan action, namely, beneficiaries, consultants, implementers, and (ii) collating actors of management plan action who participated in focus groups. First, actors of an action are compared with each other to extract the correspondences within each action (Figure 50, Box 3; First comparison), then, actors of an action are compared with focus group actors (Figure 50, Box 3; Second comparison) to extract the correspondences between community knowledge and action implementation (Figure 50, Box 4; Final inferences).

Figure 50: Excel Spreadsheet sample for actor comparison step

A Macro component in Microsoft Excel is employed to make these comparisons automatically. The data for each type of actor is stored in separate columns, so each cell typically contains more than one actor, and each row indicates a specific connection from the knowledge base (Figure 51).

Figure 51: Excel Spreadsheet sample showing actor data

Beneficiaries	Consultants	Implementers	Focus Groups	Beneficiaries	Consultants	Implementers
No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	W	No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"
No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	D	No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"
No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	D	No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"
Visitors;Residents,Users of the management plan area,Businesses;Institutions	"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"TMMOB Diyarbakir Provincial Coordination"	"DMM Construction and Urbanization Directorate";"DMM Transportation Directorate"	SM HM	Visitors;Residents,Users of the management plan area,Businesses;Institutions	"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"TMMOB Diyarbakir Provincial Coordination"	"DMM Construction and Urbanization Directorate";"DMM Transportation Directorate"
No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"	SM HM	No beneficiaries	"DMM Construction and Urbanization Directorate";"Sur Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate";"Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"

The comparison process involves extracting each actor in a cell and searching for it in other cells; therefore, it counts each match and sums them to give a final value corresponding to the number of matches. The higher the value, the higher the correspondence. The script for the full macro is given in *Appendix V: Actor Comparison Microsoft Excel Macro Script*.

The conversion from numerical data back into strings is described in Box 3 and the inference rule for the final step of this search is described in Box 4.

Box 3: Formula for converting numerical data back into inferences to identify compared actors.

```
=IF(AND(E1=0,F1=0,G1=0),"There is no match between beneficiaries, consultants and implementers", "There is match between beneficiaries, consultants and implementers")
```

First comparison

```
=IF(AND(N1=0,O1=0,P1=0),"there is no match between focus groups and beneficiaries, consultants, implementers", "there is match between focus groups and beneficiaries, consultants, implementers.")
```

Second comparison

Box 4: Formula for extracting the final natural language representations.

```
=IF(AA129="not assessed", "not assessed", IF(SUM('Actor Comparison'!E128:G128,'Actor Comparison'!N128:P128)=0,"There is not any match between actors.", SUM('Actor Comparison'!E128:G128,'Actor Comparison'!N128:P128)))
```

Final inferences

7.5.4. Content of connections

The next step is to assess the connections between issue assertions and management plan actions. Natural language representations for the inferences are created to reflect the content of the connections (Table 37). For instance, if a statement type of issue in space category is addressed by a control type of action in heritage category, natural language representation of inference would be: "A spatial situation related to heritage is controlled." Else, if a suggestion type of issue in heritage category is addressed by a policy type of action in

communication category, natural language representation of inference would be: "*A communicative policy decision is made for a suggestion on heritage.*"

Table 37: Natural Language Representations based on type and category connections

Connections	Natural Language Representations
Statement - Intervention	Contextual
space - space	A spatial intervention is taken for a spatial situation.
heritage - heritage	An intervention on heritage is taken for a situation related to heritage.
society - space	A spatial intervention is taken for a social situation.
agriculture - space	For an agricultural situation, a spatial intervention is taken.
Statement - Control	Positive, if control follows statement.
space - space	A spatial situation is controlled by a spatial action.
heritage - heritage	A situation related to heritage is controlled.
heritage - agriculture	A situation related to agricultural heritage is controlled.
space - heritage	A spatial situation related to heritage is controlled.
agriculture - space	An agricultural situation is controlled by a spatial action.
agriculture - research	An agricultural situation is controlled by a research action.
agriculture - agriculture	An agricultural situation is controlled.
Statement - Policy	Contextual
heritage - heritage	A policy decision on heritage is made for a situation related to heritage.
society - society	A social policy decision is made for a situation related to society.
space - communication	A communicative policy decision is made for a spatial situation.
space - space	A spatial policy decision is made for a spatial situation.
society - communication	A communicative policy decision is made for a situation related to society.
space - heritage	A heritage policy decision is made for a spatial situation.
agriculture - communication	A communicative policy decision is made for an agricultural situation.
agriculture - agriculture	An agricultural policy decision is made for an agricultural situation.
agriculture - space	A spatial policy decision is made for an agricultural situation.
Suggestion - Intervention	Positive, if intervention follows suggestion.
space - space	A spatial suggestion is considered by a spatial intervention.
communication - space	A communicative suggestion is considered by a spatial intervention.
agriculture - agriculture	An agricultural suggestion is considered by an agricultural intervention.
agriculture - space	An agricultural suggestion is considered by a spatial intervention.
heritage - research	A suggestion on heritage is considered by a research intervention.
space - heritage	A spatial suggestion is considered by an intervention on heritage.
Suggestion - Control	Positive, if suggestion is control.
communication - space	A communicative suggestion is controlled by a spatial action.
heritage - heritage	A suggestion on heritage is controlled.
agriculture - agriculture	A suggestion on agriculture is controlled.
agriculture - research	A suggestion on agriculture is controlled by a research action.
Suggestion - Policy	Positive, if suggestion is policy.
communication - communication	A communicative policy decision is made for a suggestion on communication.
space - space	A spatial policy decision is made for a spatial suggestion.
agriculture - research	A research policy decision is made for an agricultural suggestion.
agriculture - agriculture	An agricultural policy decision is made for an agricultural suggestion.

Connections	Natural Language Representations
agriculture - communication	A communicative policy decision is made for an agricultural suggestion.
heritage - agriculture	An agricultural policy decision is made for a suggestion on heritage.
heritage - communication	A communicative policy decision is made for a suggestion on heritage.
heritage - heritage	A policy decision is made for a suggestion on heritage.
Diagnosis - Intervention	Positive, if intervention solved the problem.
heritage - heritage	An intervention action is taken on a diagnosis related to heritage.
Diagnosis - Control	Positive, if control check on the problem.
heritage - heritage	A diagnosis related to heritage is controlled.
society - society	A diagnosis related to society is controlled.
space - research	A spatial diagnosis is controlled by a research action.
heritage - research	A diagnosis related to heritage is controlled by a research action.
agriculture - research	An agricultural diagnosis is controlled by a research action.
agriculture - agriculture	An agricultural diagnosis is controlled.
Diagnosis - Policy	Positive, if policy solves the problem.
heritage - heritage	A policy decision is made for a diagnosis related to heritage.
society - communication	A communicative policy decision is made for a diagnosis related to society.
society - society	A social policy decision is made for a social diagnosis.
space - space	A spatial policy decision is made for a spatial diagnosis.
space - communication	A communicative policy decision is made for a spatial diagnosis.
agriculture - agriculture	A policy decision is made for an agricultural diagnosis.
communication - research	A research policy decision is made for a diagnosis related to communication.
Request - Intervention	Contextual, unless intervention explicitly requested.
heritage - heritage	An intervention is taken for a request related to heritage.
agriculture - agriculture	An intervention is taken for a request related to agriculture.
communication - agriculture	An agricultural intervention is taken for a request related to communication.
space - space	A spatial intervention is taken for a spatial request.
space - heritage	An intervention on heritage is taken for a spatial request.
heritage - space	A spatial intervention is taken for a request related to heritage.
Request - Control	Contextual, unless control explicitly requested.
space - research	A spatial request is controlled by a research action.
heritage - heritage	A request on heritage is controlled.
heritage - research	A request on heritage is controlled by a research action.
Request - Policy	Contextual, unless policy explicitly requested.
society - society	A social policy decision is made for a social request.
heritage - heritage	A policy decision is made for a request related to heritage.
agriculture - agriculture	An agricultural policy decision is made for an agricultural request.
space - research	A research policy decision is made for a spatial request.
space - communication	A communicative policy is made for a spatial request.
communication - communication	A communicative policy is made for a request on communication.
space - heritage	A policy action on heritage is made for a spatial request.
heritage - communication	A communicative policy is made for a request on heritage.
heritage - research	A research policy decision is made for a request on heritage.

These natural language representations are extracted with the formula in Box 5. In the formula, "Table 6 [ContentInferences]" consists of these natural language representations for each connection as in Table 37.

Box 5: Formula for extracting content of the connections as natural language representations.

```
=IF(AA2="not assessed", "not assessed",IF(AA2="No transfer", "No transfer",
VLOOKUP(TEXTJOIN(" ", TRUE, TEXTJOIN(" - ", TRUE, H2, K2), TEXTJOIN(" - ", TRUE, I2, L2)),
Table6[ContextInferences], 2)))
```

7.5.5. The level of knowledge transfer

On the other hand, in order to automate the assessment of knowledge transfer levels of connections, knowledge transfer values are reassessed based on the qualitative assessment in Chapter 6 using WEKA (Waikato Environment for Knowledge Analysis) software which is a data analysis tool (Witten and Frank 2005) that received in input the data encoded in Excel as displayed in Figure 47 on page 95, comprising connections of issue assertions and management plan actions and their knowledge transfer levels of *fully transferred*, *partially transferred*, and *not transferred* from the qualitative assessment. WEKA identified (using the canopy method) 16 clusters of different connections with these knowledge transfer levels from the qualitative assessment (Figure 52).

Figure 52: Canopy clustering with WEKA

The screenshot shows the Weka Explorer interface. The 'Clusterer' window is open, displaying the 'Canopy' method with the following parameters: `-N -1 -max-candidates 100 -periodic-pruning 10000 -min-density 2.0 -t2 -1.0 -t1 -1.25 -S 1`. The 'Cluster mode' section has 'Use training set' selected, and 'Store clusters for visualization' is checked. The 'Clusterer output' window shows the following results:

```
Canopy clustering
=====
Number of canopies (cluster centers) found: 17
T2 radius: 1.118
T1 radius: 1.398

Cluster 0: agriculture, Suggestion, communication, Policy, partially, {2} <0,8>
Cluster 1: space, Suggestion, space, Intervention, partially, {13} <1>
Cluster 2: agriculture, Statement, space, Intervention, fully, {2} <2>
Cluster 3: agriculture, Statement, agriculture, Control, partially, {9} <3>
Cluster 4: agriculture, Statement, communication, Policy, fully, {3} <4>
Cluster 5: society, Statement, communication, Policy, partially, {8} <5>
Cluster 6: space, Statement, heritage, Policy, partially, {3} <6>
Cluster 7: space, Request, research, Policy, partially, {2} <7>
Cluster 8: communication, Suggestion, communication, Policy, partially, {3} <0,8>
Cluster 9: society, Diagnosis, society, Policy, fully, {2} <9>
Cluster 10: heritage, Diagnosis, heritage, Intervention, partially, {3} <10>
Cluster 11: agriculture, Suggestion, agriculture, Policy, fully, {7} <11>
Cluster 12: space, Diagnosis, communication, Policy, fully, {5} <12>
Cluster 13: society, Statement, space, Intervention, partially, {2} <13>
Cluster 14: agriculture, Suggestion, agriculture, Intervention, partially, {2} <14>
Cluster 15: space, Statement, heritage, Control, not, {2} <15>
Cluster 16: agriculture, Diagnosis, research, Control, partially, {4} <16>

Time taken to build model (full training data) : 0.01 seconds
```

Based on these clusters, instead of three levels of knowledge transfer, six levels of knowledge transfer are extracted: (i) full, (ii) p-full (referring between partial and full), (iii) partial, (iv) n-partial (referring between partial and not transferred), (v) no transfer, and (vi) not assessed. The last two levels were already defined

in the concepts as '*not assessed*' for issues raised by non-community stakeholders and '*no transfer*' for issue assertions not addressed by any actions or management plan actions addressing to the issue code (Figure 44 on page 93, Figure 45 on page 94).

The first four levels of knowledge transfer were extracted to anticipate connections comprising different levels of knowledge transfer in the clusters created by WEKA. Hence, *p-full* and *n-partial* levels are created to anticipate these differences. These new levels of knowledge transfer: *p-full* and *n-partial* refer to, respectively, variant results between fully and partially transferred and variant results between partially and not transferred connections (Figure 54).

These newly defined knowledge transfer levels are validated using WEKA classifier. The levels defined in qualitative assessment and the levels created for rule-based system were compared using *tree classifier J48* and correctly classified instance ratio was 96.81% which means rules for knowledge transfer level classification are validated (Figure 53, Figure 54).

Figure 53: WEKA Classifier Tree View Validating Classification of Knowledge Transfer Level

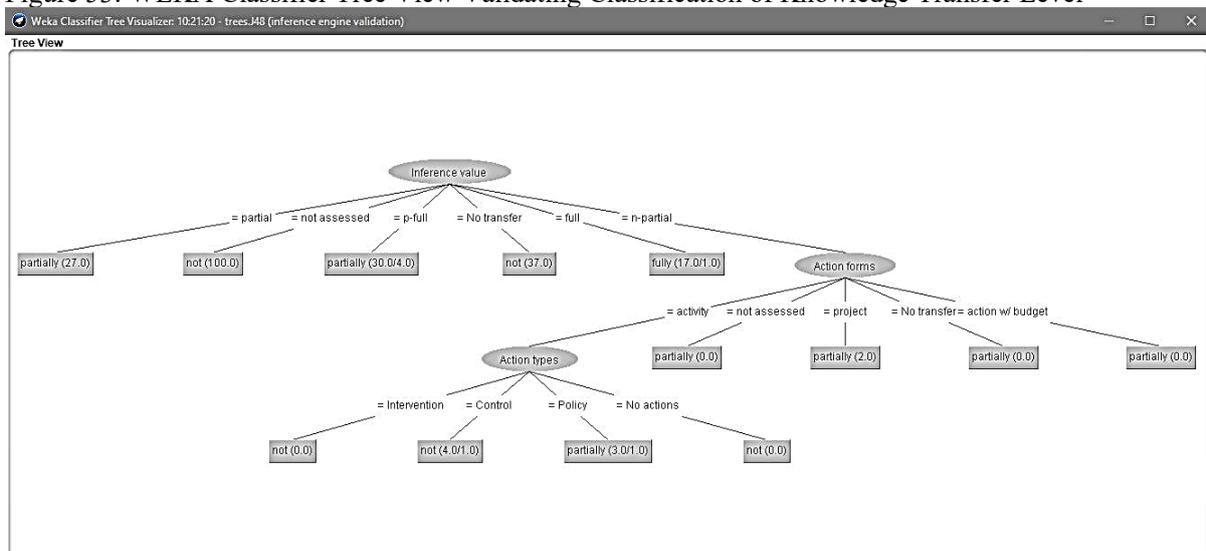
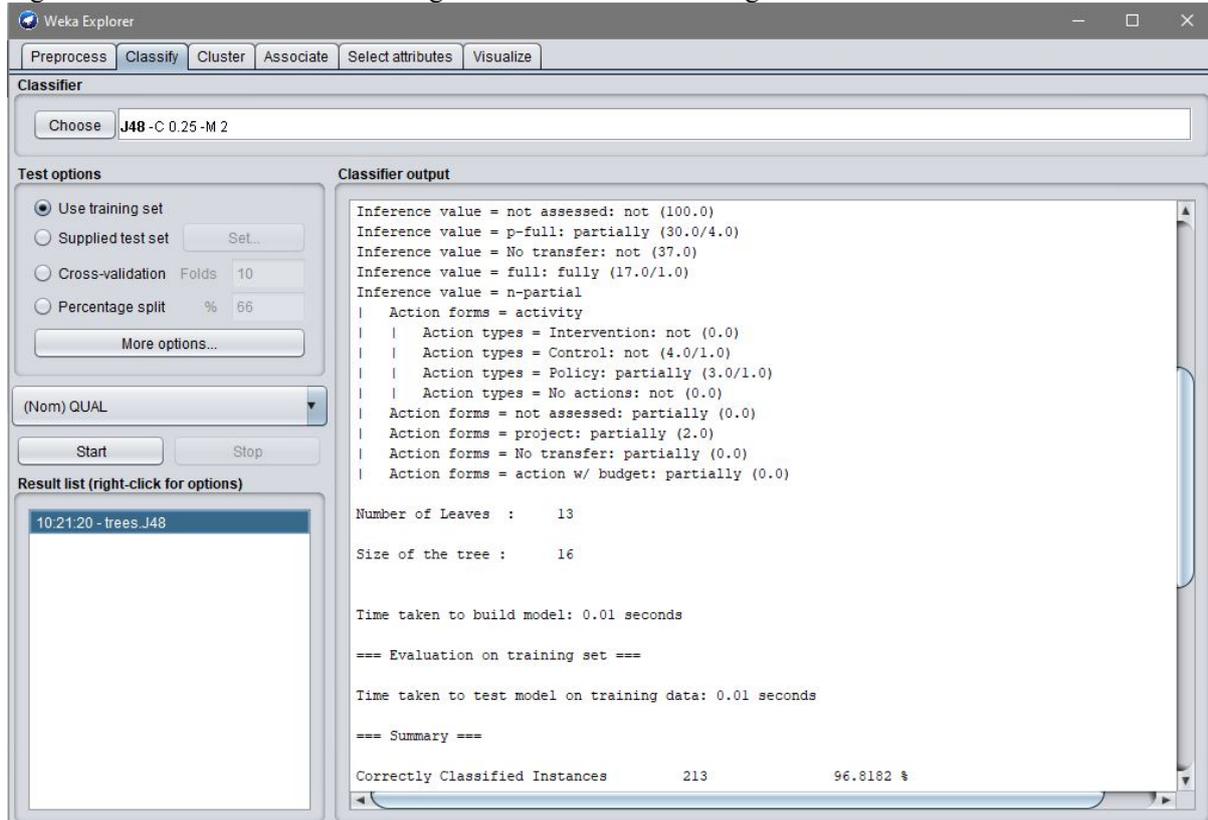


Figure 54: WEKA classifier validating Classification of Knowledge Transfer Level



The levels of knowledge transfer defined for the rule-based system for each connection are given in Table 38. These levels are extracted as the natural language representations of the level of knowledge transfer in the inference engine with the formula in Box 6. In the formula, "*Table 7 [Inferences]*" consists of these natural language representations for each level e.g., for the level *full*; natural language representation is "*Knowledge transfer level: full.*" or for the level *n-partial*; natural language representation is "*Knowledge transfer level: n-partial.*"

Box 6: Formula for converting the levels of knowledge transfer into natural language representations.

```
=IF(AA2="not assessed", "not assessed", IF(AA2="No transfer", "No transfer",
VLOOKUP(TEXTJOIN(" ", TRUE, TEXTJOIN(" - ", TRUE, H2, K2), TEXTJOIN(" - ", TRUE, I2, L2)),
Table7[Inferences], 2)))
```

Table 38: The levels of knowledge transfer defined for the rule-based system

Issue category	Issue type	Action category	Action type	Level
space	request	communication	policy	full
		research	control	n-partial
		research	policy	partial
		space	intervention	p-full
	diagnosis	space	policy	full
		communication	policy	full
	statement	research	control	p-full
	statement	space	intervention	partial

Issue category	Issue type	Action category	Action type	Level
		communication	policy	partial
		space	policy	n-partial
		heritage	policy	n-partial
		heritage	control	n-partial
	suggestion	space	intervention	partial
		heritage	intervention	partial
society	request	society	policy	Full
	diagnosis	society	policy	Full
		communication	policy	p-full
		society	control	p-full
	statement	society	policy	p-full
		communication	policy	partial
space		intervention	partial	
heritage	diagnosis	heritage	intervention	p-full
		heritage	control	p-full
		heritage	policy	partial
		research	control	partial
	statement	agriculture	control	p-full
	suggestion	heritage	control	partial
communication	request	agriculture	intervention	full
	diagnosis	research	policy	partial
	suggestion	communication	policy	p-full
		space	intervention	p-full
		space	control	partial
agriculture	request	agriculture	policy	full
		agriculture	intervention	p-full
	diagnosis	agriculture	policy	p-full
		agriculture	control	partial
		research	control	partial
		research	control	partial
	statement	communication	policy	full
		agriculture	control	partial
		agriculture	policy	p-full
		space	control	full
		space	intervention	p-full
		space	policy	partial
		research	control	partial
	suggestion	research	policy	full
		research	control	full
		agriculture	policy	p-full
		agriculture	control	partial
agriculture		intervention	p-full	
space		intervention	p-full	
communication		policy	n-partial	

7.5.6. Natural Language Representations

In the final step, based on the aforementioned rules, an inference engine extracts the results for each connection in the form of natural language representation. Some examples are illustrated in the boxes below:

Box 7: Statement in society category – policy in society category.

"Results:

- * Budget allocated and explained.
- * There is no match between beneficiaries, consultants, and implementers, but there is match between focus groups and beneficiaries, consultants, implementers.
- * A social policy decision is made for a situation related to society."
- * Knowledge transfer Level: p-full.

Box 8: Statement in space category – control in heritage category.

"Results:

- * No budget allocated.
- * There is not any match between actors.
- * A spatial situation related to heritage is controlled."
- * Knowledge transfer Level: n-partial.

Box 9: Request in communication category – intervention in agriculture category.

"Results:

- * Budget allocated and explained.
- * There is no match between beneficiaries, consultants, and implementers, but there is match between focus groups and beneficiaries, consultants, implementers.
- * An agricultural intervention is taken for a request related to communication."
- * Knowledge transfer Level: full.

7.6. Validation

In order to validate Audit Design, results from the rule-based system are compared with results from the qualitative assessment (Chapter 6) to check how close the automated assessment matches with the human-made one. Total values (105 out of 120 were correct) were 87.5% accurate which indicates that the validation has been thorough; and rule-based system is robust. In addition, in each issue family the levels of knowledge transfer in qualitative assessment were the same or very similar with the rule-based system (Table 39).

Table 39: Comparing results for qualitative assessment and rule-based system

Issue Family	Fully transferred		Partially transferred		Not transferred	
	Qualitative Assessment	Rule-based System	Qualitative Assessment	Rule-based System	Qualitative Assessment	Rule-based System
IF 1: Surici Urban Area	3	4	8	7	6	6
IF 2: Social and Economic Problems	2	2	13	10	18	21
IF 4: Public Use	0	0	3	5	5	3
IF 5: Agriculture	13	10	25	29	6	5
IF 6: Management	1	0	6	6	1	2
IF 7: Spatial Planning	2	1	5	9	3	0
Total	21	17	60	66	39	37

A more detailed comparison shows that the rationale behind the inference rules. The variant values across the connections are anticipated with *p-full* and *n-partial* levels. As shown in Table 40, some connections are assessed as *partial* transfer in qualitative assessment whereas they are evaluated as *p-full*, *partial*, and *n-partial* with in the rule-based system. The variant matches are shown in Table 40, highlighted in grey colour.

Table 40: Detailed comparison of qualitative assessment and rule-based system

Issue Family	Qualitative Assessment Results	Count	Rule-based System Results	Count
Issue Family 1	fully	3	full	3
	partially	8	full	1
			p-full	1
			partial	4
			n-partial	2
	not	11	No transfer	6
Not assessed			5	
Issue Family 2	fully	2	full	2
	partially	10	p-full	5
			partial	5
	not	23	No transfer	21
Not assessed			2	
Issue Family 3	not	16	Not assessed	16
Issue Family 4	partially	3	partial	1
			n-partial	2
	not	8	n-partial	2
			No transfer	3
Not assessed	3			
Issue Family 5	fully	12	full	10
			p-full	2
	partially	26	p-full	13
			partial	12
			n-partial	1
not	6	n-partial	1	
		No transfer	5	
Issue Family 6	fully	1	p-full	1

Issue Family	Qualitative Assessment Results	Count	Rule-based System Results	Count
	partially	5	p-full	2
			partial	3
	not	11	No transfer	2
			Not assessed	9
Issue Family 7	fully	2	full	1
			p-full	1
	partially	7	p-full	5
			partial	2
	not	21	n-partial	1
Not assessed			20	
Issue Family 8	not	45	Not assessed	45

Validation results show that:

- The previously captured types of actions and types of issues together with the knowledge domains were used to create connections (e.g., "space - heritage, statement – control") enabling the method to assess the data automatically with rules.
- The 45% of the connections were not assessed in both the Qualitative Audit Method and the Audit Design since they do not contain any community input.
- Issue types were automatically identified with 96% precision and 93% recall.
- Management plan types were automatically identified with 95% precision and recall.
- Knowledge domains for issues were automatically identified with 81.6% precision and 79.7% recall whereas knowledge domains for actions were automatically identified with 83.5% precision and 80.4% recall.
- The levels of knowledge transfer were identified with 87.5% accuracy.
- The application of inference rules called for more nuances on the specification of three levels of knowledge transfer (fully transferred, partially transferred, and not transferred). These nuances were needed to accommodate variations of knowledge transfer in connections that corresponded to more than one level, which could be spotted only through human assessment.
- Knowledge transfer was, therefore, gauged using five different levels (full, p-full, partial, n-partial, no transfer) from which p-full and n-partial are flagged for human inspection reducing enormously the time and the burden of assessment.
- However, the method misses details on who proposed the issues from community stakeholders within connections as no inference rules about this could be detailed. I.e., it is possible to know if an issue comes from the community or not, but not from whom within the community it comes from.
- Similarly, the method misses details on the content of the connections contrarily to the Qualitative Audit Method. I.e., it is possible to know if an issue and an action, for instance, belong to the knowledge domain of space but with no details beyond that.

- However, Audit Design produced clear natural language representations on the content of different connections (e.g., For the connection of "space - heritage, statement – control", natural language representation is "A spatial situation related to heritage is controlled."). These connections can be used to expand the set of inference rules in new case studies.

7.7. Conclusion

In Chapter 6, the first objective of this study was accomplished by scrutinizing community knowledge transfer from focus group meeting to WHS management plans in the context of Turkey. The second objective is achieved by developing a semi-automated method to undertake this scrutiny which is able to capture knowledge transfer with its reasonable nuances and at the same time numerically gauging this transfer to enable an objective assessment to be done. This chapter explains this semi-automated method so called Audit Design in a manner showing how to combine the qualitative analysis methods with knowledge representation methods and Natural Language Processing.

In order to fully achieve this second objective, establishing potential benchmarks at a national (and, in the future, international) level, this method should be applied to more case studies in order to create a pool for the categories and types of issue assertions and management plan actions, and the levels of knowledge transfer of different forms of connections. In the next chapter, the method is applied to another case study from Turkey; Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS, starting to create this pool in the context of Turkey.

Chapter 8. Audit Design Deployment

In this chapter, Audit Design is deployed on another case study in Turkey, Bursa and Cumalıkızık: The Birth of the Ottoman Empire which was included on the Tentative List of World Heritage Sites in 2000 and was inscribed as a WHS in June 2014 by UNESCO WHC. Bursa and Cumalıkızık World Heritage Site was a serial nomination of eight sites which illustrate the creation of urban and rural systems establishing the Ottoman Empire in the early 14th century. The property illustrates key functions of the social and economic organizations of the new capital which evolved around a new civic centre. These include the commercial districts of khans, sultan complexes, religious schools, public baths, and a kitchen for the poor as well as the tomb of Orhan Ghazi, the founder of the Ottoman dynasty (Figure 55). One site is outside of the historic centre of Bursa, which is the village of Cumalıkızık, the only rural village of this system intended to show the provision of hinterland support for the capital.

Figure 55: Aerial view of Bursa Khans Area



Source: UNESCO Nomination Dossier, 2013, p.928

8.1. Deployment method overview

As previously explained in Chapter 7, Audit Design implementation has 6 main stages:

1. Familiarisation with the data and WHS
2. Development of an analytical framework
3. Extraction of types and categories
4. Creation of a knowledge base
5. Application of the rule-based system developed in Chapter 7
6. Render of inferences to produce results.

Each stage is explained and illustrated with the use of the new case study. Audit Design is a method to gauge knowledge transfer from community to site management plan actions. Therefore, engagement with the community in the plan preparation process is essential. These engagement activities should be recorded in any form which allows the extraction of community opinions, interests, or sayings.

In principle, site management plans include a series of concrete actions stating their implementers, stakeholders, assigning a budget to each of them, and referring to the community input. To apply the Audit Design, the site management plan should meet these criteria.

8.2. Familiarisation with the data and WHS

The main elements, to be familiar with the case study, are; the site description, its outstanding universal value, the site management plan preparation process, and the content and structure of site management plan. The first two inform the researcher about the WHS whereas last two introduce the data from the discussions with the community and the data from the site management plan document.

8.2.1. Site Description: Components

Bursa and Cumalıkızık: The Birth of the Ottoman Empire was included on the Tentative List of World Heritage Sites in 2000. Bursa Metropolitan Municipality has started the process of preparation of both site management plan and UNESCO nomination dossier in 2009 (Akan Architecture 2013). The latter was officially submitted to the UNESCO WHC on May 2013 and the site was inscribed as a WHS in June 2014 (Decision 38 COM 8B.37). During the process, two community meetings were organised in three different locations; Khans Area, Complexes Region, and Cumalıkızık Village by Akan Architecture whose planning team also prepared the site management plan for the WHS nomination.

Figure 56: Location of the Site



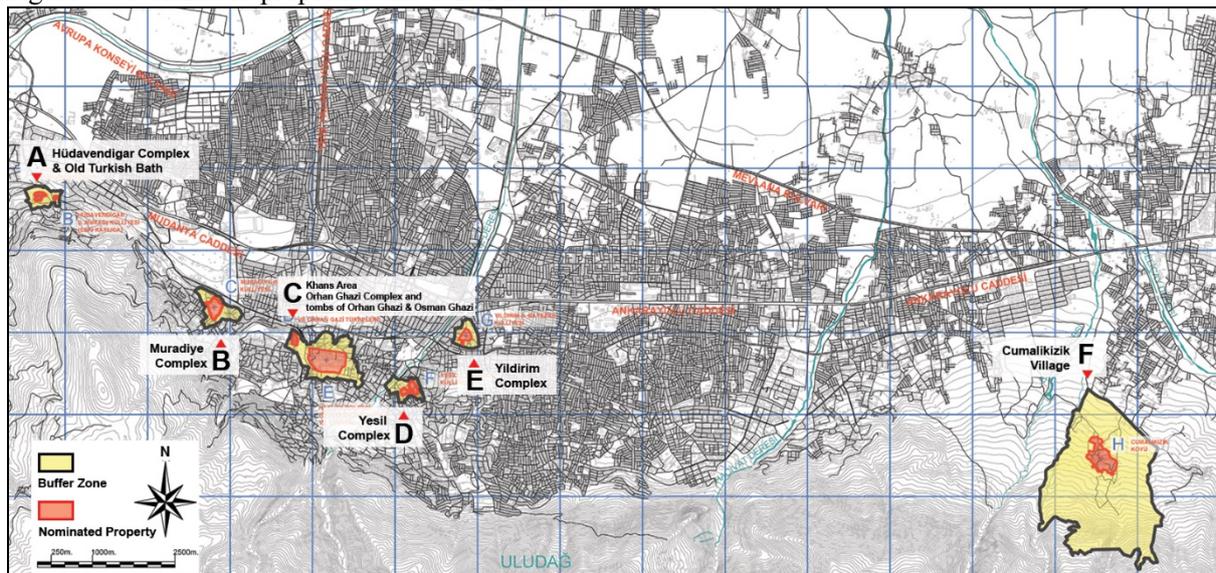
Source: Drawn by the author

Bursa is located on the north-western slopes of Uludag Mountain in the southern Marmara Region (Figure 56). Bursa and Cumalıkızık World Heritage Site is a serial nomination of eight sites in which seven of the serial components are located in Bursa city centre namely Khans Area and Sultan Complexes while one component covers the village of Cumalıkızık, located approximately 8 km east of the historic centre of Bursa (ICOMOS 2014). Apart from this last component which represents an Ottoman village with its rural land-use, the nomination presents focal points of the emerging capital from the birth of the Ottoman Empire in the early 14th century. These focal points comprise civil and religious functions which are selected examples

of commercial, religious, and civic community centres. As shown in Figure 57, Khans area and Sultan Complexes are on the west, Cumalıkızık Village is on the east of Bursa (Akan Architecture 2013).

Orhan Ghazi Complex composing Khans Area (Figure 57, Area C) with the surrounding buildings is the first complex of Bursa with its mosque, madrasah⁵, imaret⁶, khan and bath. Other complexes were built by the Ottoman Sultans are Hudavendigar Complex constructed by Sultan Murad I (Figure 57, Area A), Yildirim Complex constructed by Sultan Bayezid I (Figure 57, Area E), Yesil Complex constructed by Sultan Mehmed I (Figure 57, Area D), and Muradiye Complex constructed by Sultan Murad II (Figure 57, Area B). Cumalıkızık Village is a waqf village and exemplifies a rural settlement of Ottoman Empire (Figure 57, Area F) (Akan Architecture 2013).

Figure 57: Nominated properties and buffer zones



Source: Adapted map from Bursa Metropolitan Municipality Archive

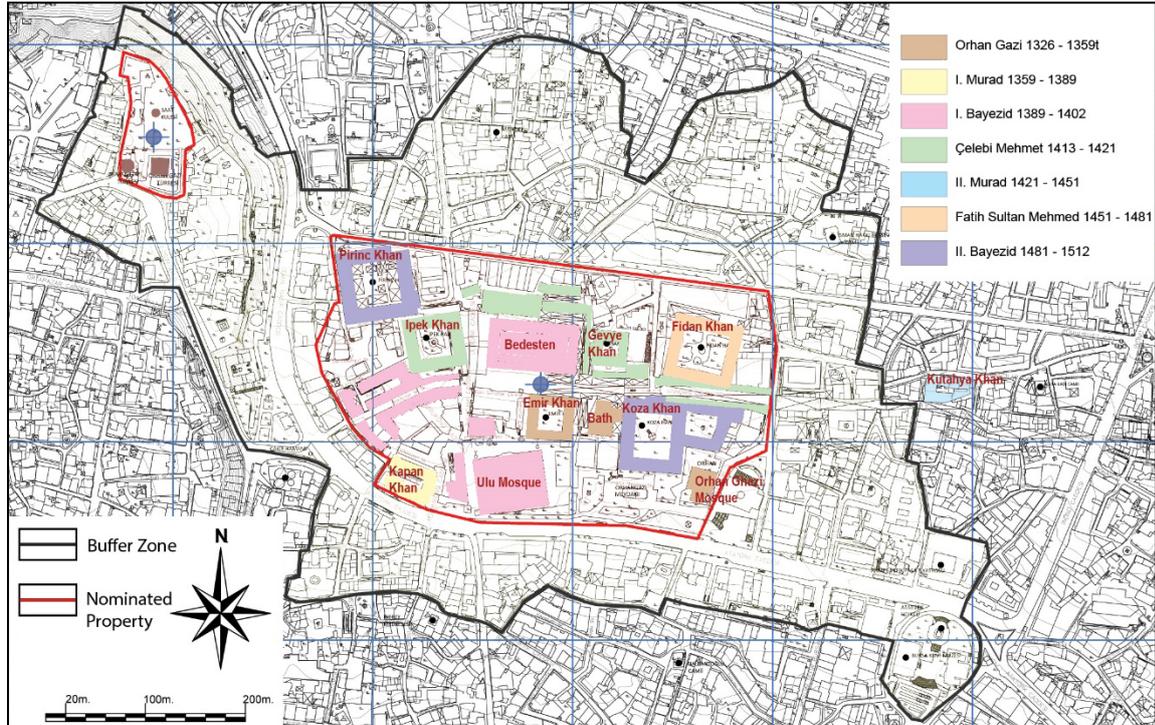
8.2.1.1. Khans Area – Orhan Ghazi Complex and tombs of Orhan Ghazi and Osman Ghazi

This site comprises Orhan Ghazi Complex and its surroundings namely Khans Area, and the memorial tombs of Osman Ghazi and Orhan Ghazi, respectively, the conqueror of the Ottoman Empire and his son who conquered Bursa in 1326 (Arslan 2015). Both Osman Ghazi and Orhan Ghazi were buried in Bursa and a single memorial building indicates the likely location of both of their graves (Figure 58, area on the left). Khans Area is the main social and commercial complex, located in the city centre, comprising civil and religious functions, and was named after the Grand Bazaar at the times of Ottoman Empire (Figure 58, area on the right).

⁵ Madrasah is a type of school where Islamic law is taught.

⁶ Imaret is a public kitchen where food is served for poor.

Figure 58: Khans Area development under the reigns of Ottoman Empire Sultans



Source: Adapted map from Bursa Metropolitan Municipality Archive

Khans Area including many commercial and religious buildings accommodates traces from the reign of every Ottoman emperor until 16th century. These buildings compose the commercial centre of the city with many khans, bazaars, and bedesten⁷. Orhan Ghazi Complex originally consists of Orhan Ghazi Mosque (Figure 59, Figure 60), an imaret, a madrasah, a public bath, and Emir Khan (Figure 61) but imaret and madrasah was demolished, and public bath was transformed into a bazaar (Arslan and Cahantimur 2011; Arslan 2015).

Figure 59: Orhan Ghazi Mosque



Source: http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/NLY_3106.jpg

Figure 60: Orhan Ghazi Mosque



Source: http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/NLY_3117.jpg

⁷ Bedesten is a market hall with a vaulted ceiling. See Figure 64.

Figure 61: Emir Khan



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/EMIRHAN-1.jpg>

Figure 62: Kapan Khan



Source: http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/IMG_6279.jpg

Kapan Khan (Figure 62) was built by Sultan Murad I, was the marketing place for local products of Cumalıkızık Village. Khans Area developed mostly under the reign of Sultan Bayezid I with the construction of Ulu Mosque (Figure 63, Figure 65), bedesten (Figure 64), bazaars around Emir Khan, madrasah, and public bath. Under the reign of Celebi Mehmet, area expanded to the north with Ipek Khan (Figure 67, Figure 68), Gevye Khan and bazaars around them. Khan area was completely developed in the Bayezid II reign with the construction of Pirinc Khan and Koza Khan (Arslan and Cahantimur 2011, p.364)(Figure 66).

Figure 63: Ulu Mosque



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/ULUCAMII.jpg>

Figure 65: Ulu Mosque



Source: http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/NLY_3190.jpg

Figure 64: Bedesten (Market Hall)



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/kapalı-çarşı-bölgesi-053.jpg>

Figure 66: Koza Khan



Source: http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/NLY_3145.jpg

Figure 67: Ipek Khan



Source: http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/IMG_0519.jpg

Figure 68: Ipek Khan

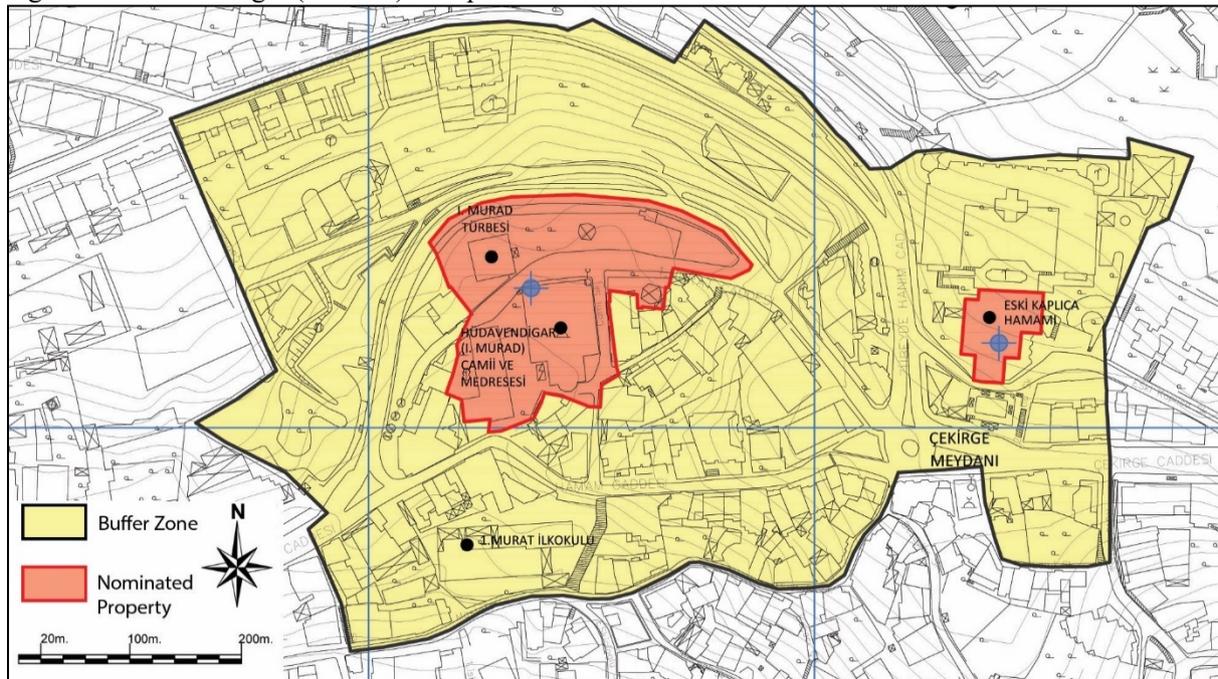


Source: http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/DSC_6442.jpg

8.2.1.2. Hüdavendigâr (Murad I) Complex and Old Turkish Bath

This complex was built by Murad I in 1363 and led the city to expand to the west (Akan Architecture 2013). The complex consists of a mosque, a madrasah, a public kitchen (imaret), and a public bath as well as the royal tomb. The kitchen was reconstructed after the earthquake in 1855 and is now used as a cultural community centre (Figure 69, on the left). The old Turkish bath is different than the Ottoman public baths in its design and building materials, testifying to the architectural styles of the Byzantine era (Figure 69, on the right).

Figure 69: Hüdavendigâr (Murad I) Complex and Old Turkish Bath



Source: Adapted map from Bursa Metropolitan Municipality Archive

Figure 70: Hüdavendigâr Mosque



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/huc11.jpg>

Figure 72: Hüdavendigâr Imaret



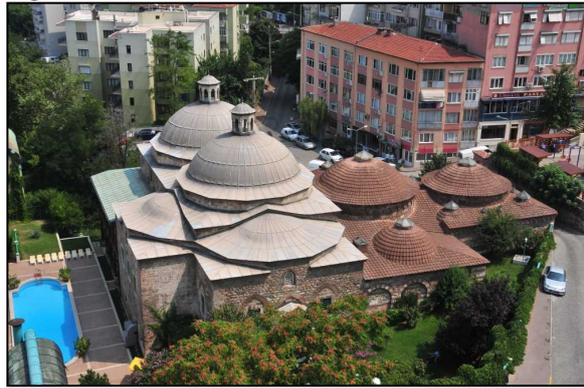
Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/hui21.jpg>

Figure 71: Hüdavendigâr Mosque



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/huc52.jpg>

Figure 73: Old Turkish Bath



Source: Bursa Governorship Archives

8.2.1.3. Yıldırım (Bayezid I) Complex

The construction of this complex started under the reign of Yıldırım Bayezid in 1390 and it is considered the most impressive Ottoman complex of Bursa. Located on the eastern border of the early Ottoman city, it became an important centre for learning comprising a madrasah (religious school) and an hospital which was the first medicine school of Ottoman Empire. The hospital continues to serve its original function as an ophthalmic hospital today. The complex also consists of a mosque, an imaret (public kitchen) and a public bath, however, only public kitchen has not survived until today (Akan Architecture 2013).

Figure 74: Yıldırım Complex



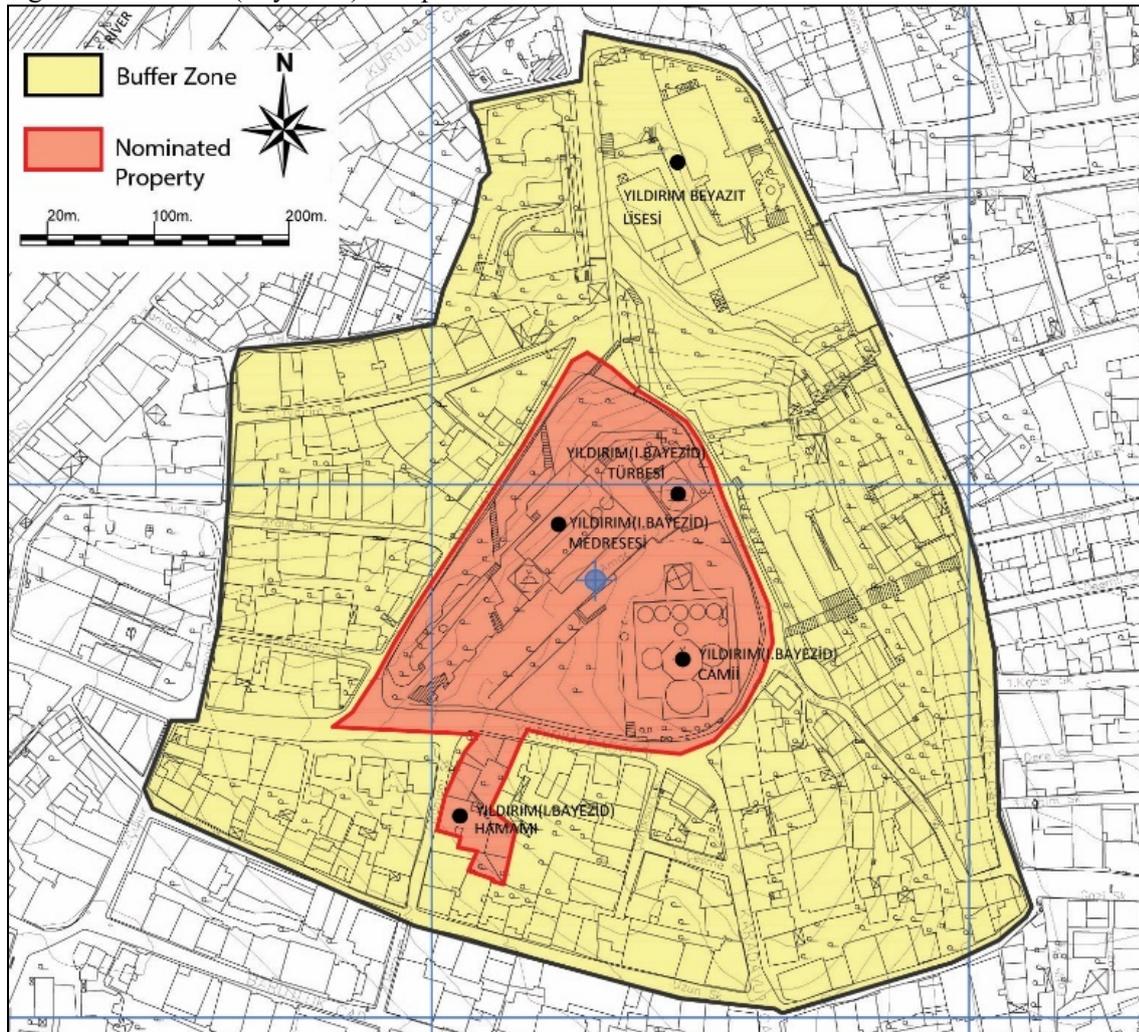
Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/yi11.jpg>

Figure 75: Yıldırım Madrasah and hospital



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/yimad1.jpg>

Figure 76: Yıldırım (Bayezid I) Complex

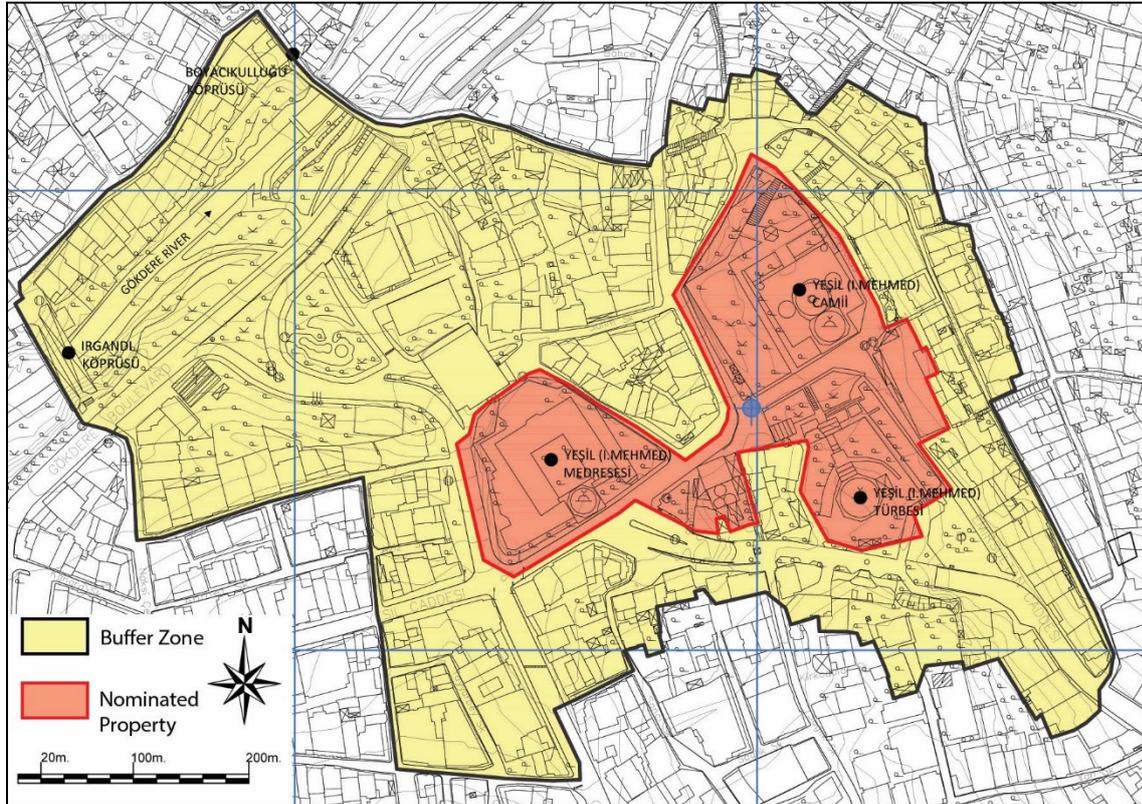


Source: Adapted map from Bursa Metropolitan Municipality Archive

8.2.1.4. Yeşil (Mehmed I) Complex

This complex was built by Sultan Mehmed I in 1419 consisting of a mosque, a madrasah, a public bath, and a tomb (Figure 77). Yesil Mosque (the meaning of its name is 'green') is covered with Iznik glazed tiles and is considered as one of the great works of art in ceramic tile production (ICOMOS 2014) (Figure 79). The simplicity of its forms in combination with the opulence of its decoration gives the architecture a very special character. The functions of the buildings in the complex have changed over time; today, the public bath is used as an artist's studio whereas the madrasah is the Museum of Turkish Islamic Art. The mosque and the imaret have conserved their functions and they are still in use (Akan Architecture 2013).

Figure 77: Yeşil (Mehmed I) Complex



Source: Adapted map from Bursa Metropolitan Municipality Archive

Figure 78: Yesil Complex



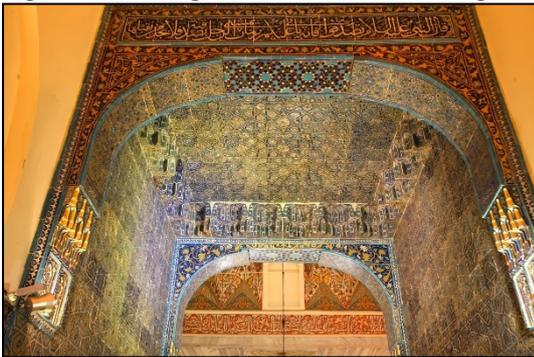
Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/yi11.jpg>

Figure 80: Yesil Imaret (public kitchen)



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/yei21.jpg>

Figure 79: Iznik glazed tiles of Yesil Mosque



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/yec91.jpg>

Figure 81: Yesil Madrasah

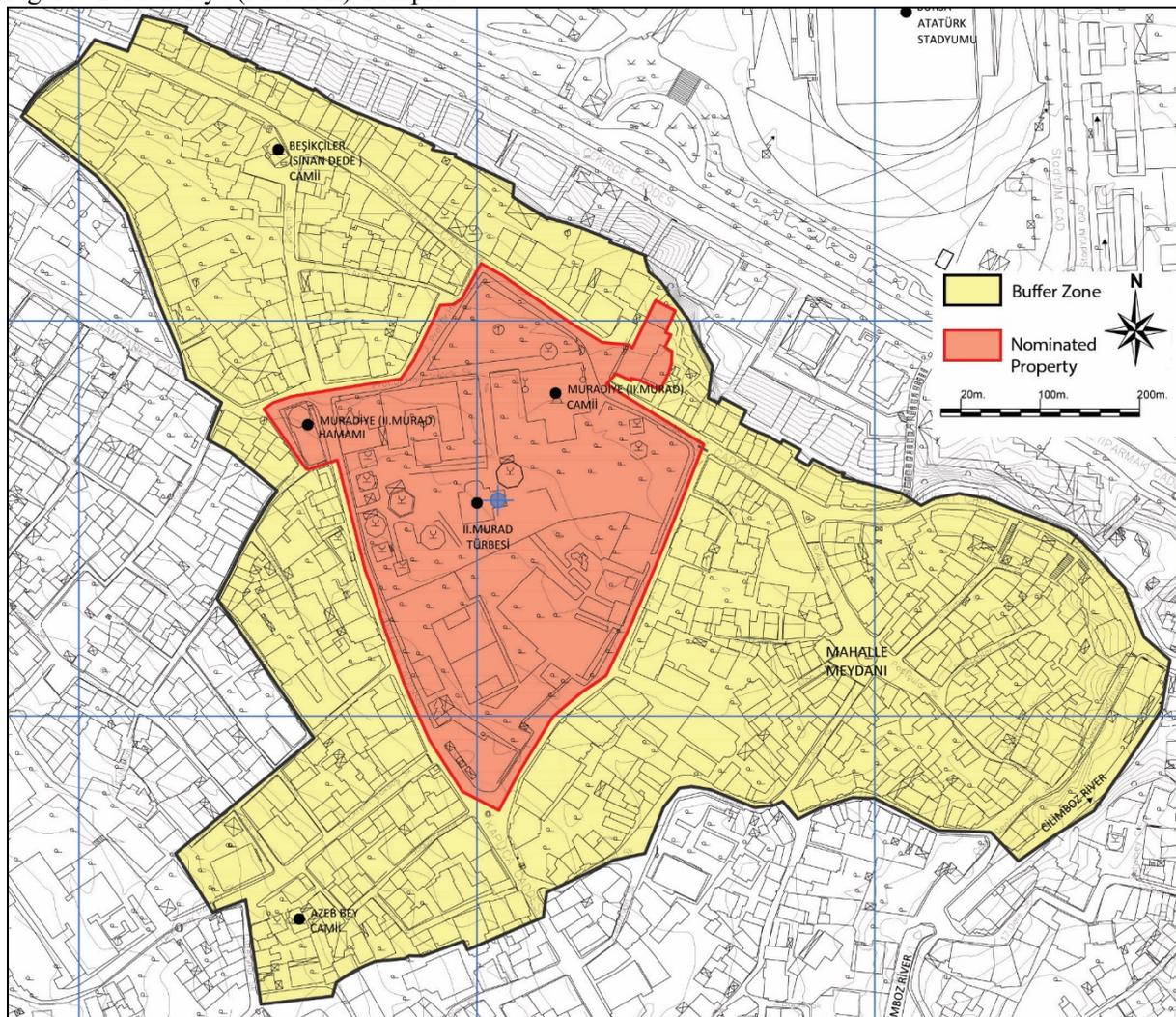


Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/yem52.jpg>

8.2.1.5. Muradiye (Murad II) Complex

Muradiye Complex was constructed in 1426 as the last complex built by the Ottoman Sultans in Bursa. It consists of a mosque, a madrasah, a public bath, and an imaret as a complex but also the first example of a hazire (a collection of tombs of royalty) including Sultan Murad II's family members (Figure 82). The mosque conserved its original function until present whereas the madrasah became a dispensary, the public kitchen is transformed into a restaurant and the public bath has been changed as a community centre (Durak et al. 2016).

Figure 82: Muradiye (Murad II) Complex



Source: Adapted map from Bursa Metropolitan Municipality Archive

Figure 83: Muradiye Complex



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/mu12.jpg>

Figure 85: Muradiye Madrasah



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/mum22.jpg>

Figure 84: Hazire (royalty tombs)



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/mume12.jpg>

Figure 86: Muradiye Madrasah inner courtyard



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/mum32.jpg>

8.2.1.6. *Cumalıkızık Village*

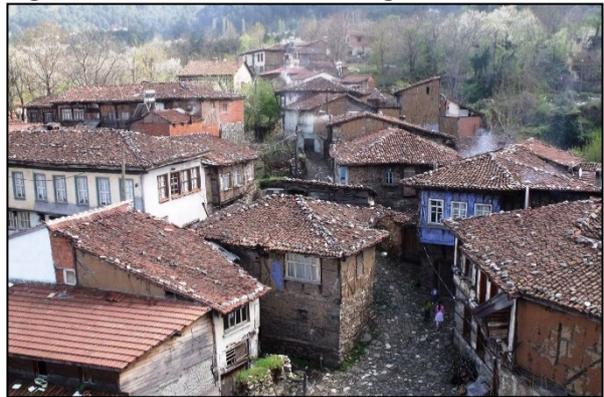
Cumalıkızık Village (Figure 89) is located on the east of Bursa and on the slopes of Uludağ mountain. When Bursa had become a capital, it was founded together with other Kizik villages to provide logistical support (ICOMOS 2014). As a waqf village, meaning the village was the emperor's endowment to the population and a source of income for the empire, is the only surviving village. It has largely retained its original settlement pattern and is the closest existent reference to what an early Ottoman village may have looked like. The settlement and its relationship to the surrounding agricultural landscape on the slopes of Uludağ Mountain illustrate the characteristics of the rural Ottoman landscape which provided sustenance (food) to the capital (Bilgin et al. 2019).

Figure 87: Villagers selling local products



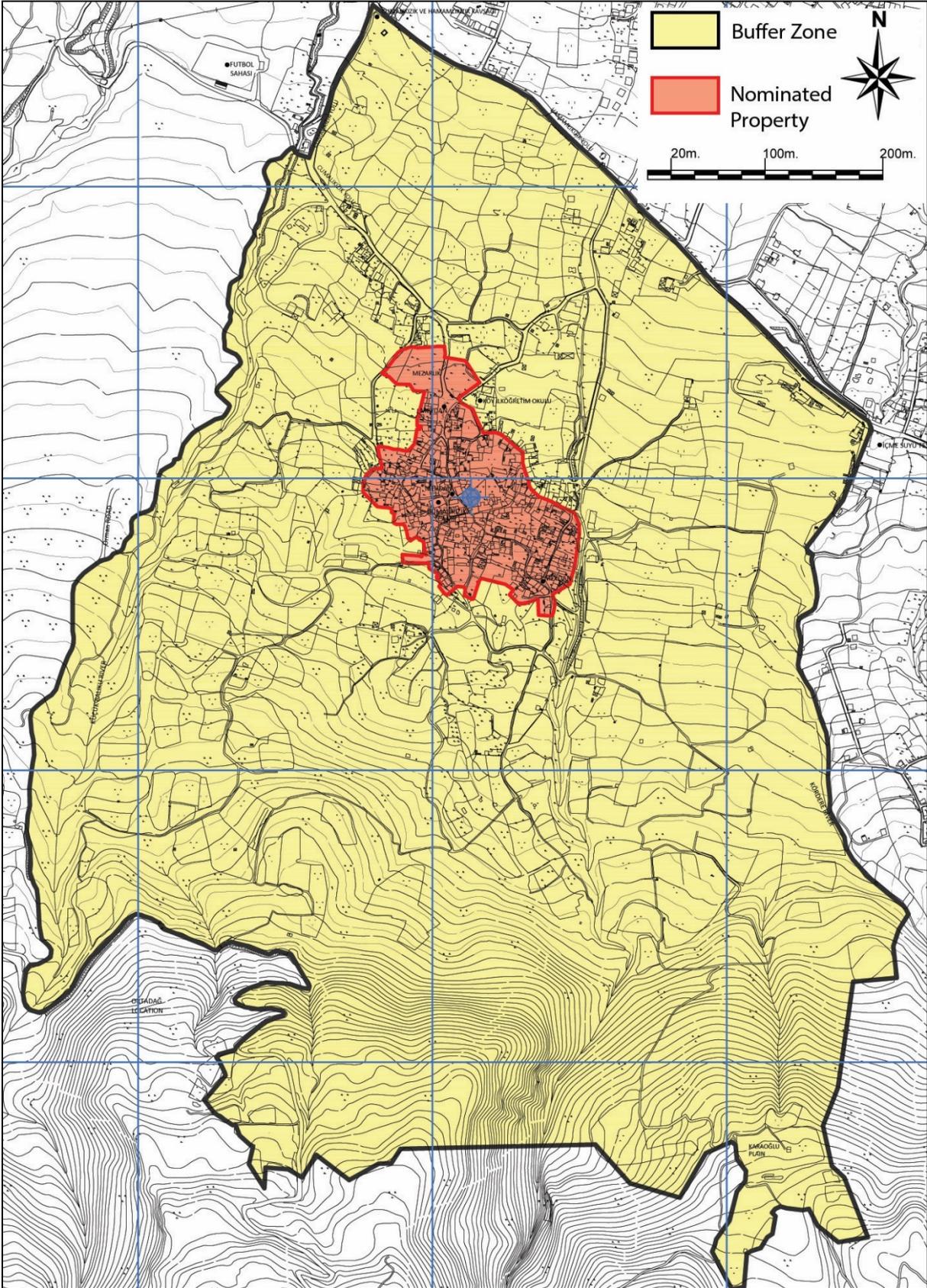
Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/9.jpg>

Figure 88: Aerial view of the village



Source: <http://alanbaskanligi.bursa.bel.tr/wp-content/uploads/2015/07/5.jpg>

Figure 89: Cumalıkızık Village



Source: Adapted map from Bursa Metropolitan Municipality Archive

8.2.2. Outstanding Universal Value of the WHS

The Outstanding Universal Value (OUV) of the heritage site as a cultural property is justified by ICOMOS according to the following reasons (ICOMOS 2014, p.273):

- Bursa was shaped during the founding years of the Ottoman Empire and has been the urbanization model for all Ottoman-Turkish cities that were founded afterwards;
- The city initiated a new approach to city development based on the formation of complexes at strategic locations as first steps for the development of surrounding trade and residential quarters, taking into consideration its topography;
- The permanence of the complexes constructed by the early Ottoman Sultans has preserved the multifunctional institutions in the centre of the early Ottoman capital, including those for religious, trade and social needs;
- Bursa was not only the first capital of the Ottoman Sultans but also the home of their ancestors and hence always had special status among the Ottoman rulers, which contributed to its conservation over many centuries.

UNESCO World Heritage Committee inscribed the property as a World Heritage Site in 2014 at 38th session of the World Heritage Committee in Doha, Qatar based on the criteria (i), (ii), (iv) and (vi) as Bursa and Cumalıkızık: The Birth of the Ottoman Empire, Turkey (Decision 38 COM 8B.37). For the justification of the inscription decision UNESCO WHC stated that:

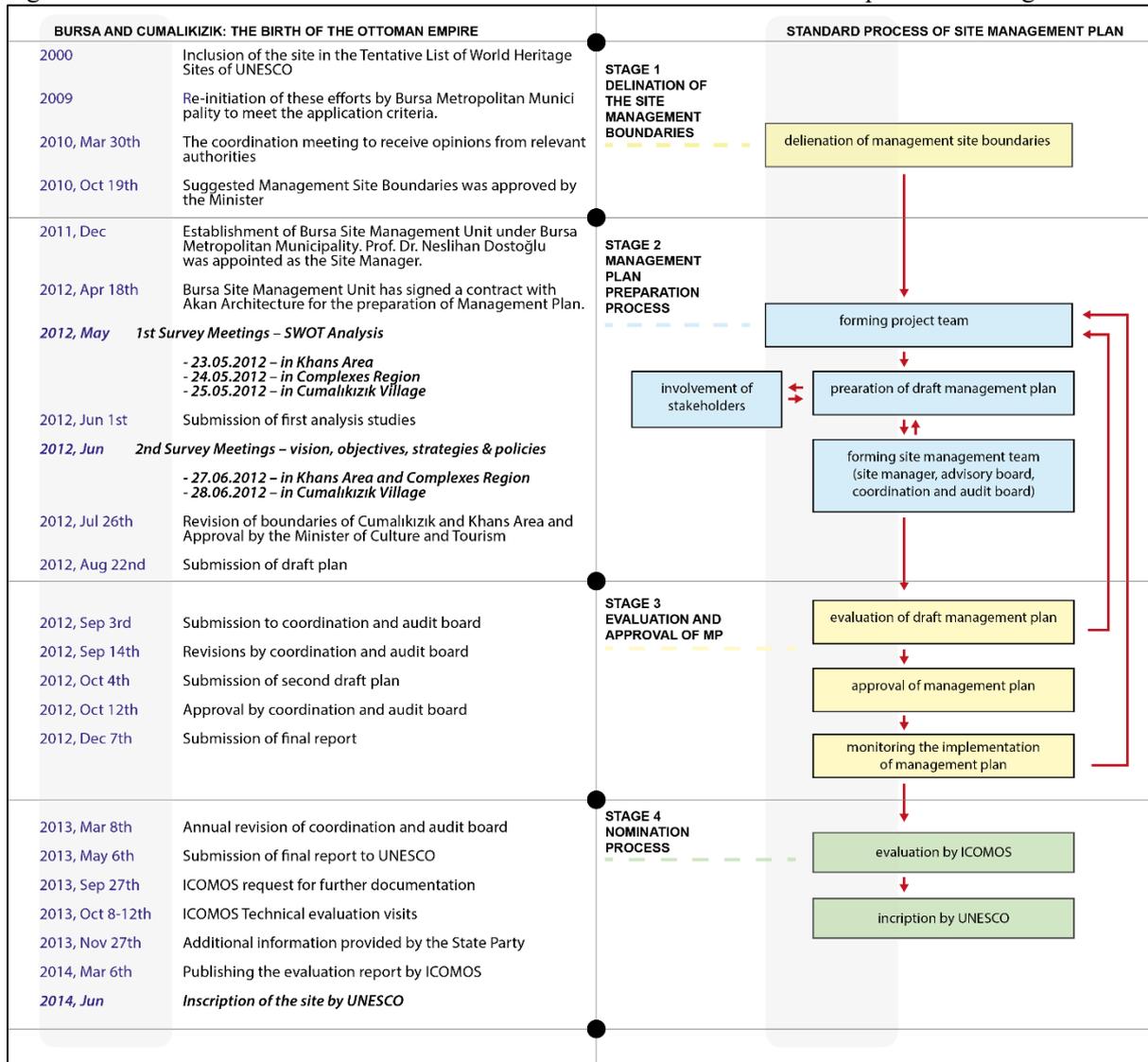
“Creation of all state institutions in Bursa, meant the creation of the Nation, the State and later the Empire.” (Decision 38 COM 8B.37)

8.2.3. Site Management Plan Preparation Process

In the plan preparation timeline of Bursa and Cumalıkızık WHS, firstly, the Ministry of Culture and Tourism started the nomination process in 2000 with the application to UNESCO WHC. After the site boundaries are delineated, the municipality established the Bursa Site Management Unit, and appointed a site manager, Prof. Dr. Neslihan Turkun Dostoglu, an architect and academician from Bursa to be in charge of it. The Site Management Unit signed a contract with Akan Architecture which is a private company from Bursa. They organised two community meetings called ‘Survey Meetings’ to collate the opinions from all the stakeholders. Since the site has eight components spread in the city of Bursa, meetings were held in different geographical locations (Figure 90).

The community is involved in the process before the plan preparation starts after the delineation of the site boundaries by the Diyarbakir Metropolitan Municipality and during the plan preparation process. They involved in the preparation of the vision statement of the management plan, however, their inclusion to the definition of OUV was not explicitly stated in the management process (Akan Architecture 2013).

Figure 90: Timeline of the Bursa and Cumalıkızık: The Birth of the Ottoman Empire Site Management



Source: Produced by the author based on the Bursa and Cumalıkızık Site Management Plan

The first survey meeting, aiming to create a SWOT analysis, was held in three different locations: Khans Area, Complexes region and Cumalıkızık village during a 3-day period (23-25 May 2012) with 162 participants.

Participants were composed of (i) decision-makers who are the local and central authorities; (ii) consultants who are the academicians and professional chambers; and (iii) community who are the individuals or representatives of local community such as NGOs, local associations, cooperatives, and community organisations (Table 41). In these first rounds of survey meetings, discussions were steered around 9 topics; built environment and life quality, education and awareness raising, economic structure, conservation and planning, cultural structure, emergency, risk and disaster, tourism and promotion, transportation and accessibility, and management structure.

Table 41: Participants of Survey Meetings

Locations	Decision-makers	Consultants	Community
Khans Area	Departments of Bursa Metropolitan Municipality, Directorates of Ministries, Relevant governorships and district municipalities	Academics from universities, Research Foundations, Professional Chambers	Owners, Shopkeepers, Associations of Bazaars and Khans, City Council
Sultan Complexes	Departments of Bursa Metropolitan Municipality, Directorates of Ministries, Relevant governorships and district municipalities	Academics from universities, Research Foundations, Professional Chambers	Mukhtars, Local people
Cumalıkızık Village	Departments of Bursa Metropolitan Municipality and Yildirim Municipality, Governorship, Directorates of Ministries, Technical infrastructure suppliers	Academics from universities, Research Foundations, Professional Chambers	Villagers, Mukhtar, City Council, Cooperatives and local associations

The second round of survey meetings was more focused on participants views on specific questions and participants from the first round of meetings were invited again. Two meetings were held at this stage, one in the Khans Area and Sultan Complexes, one in the Cumalıkızık Village, lasting for two days (June 27-28, 2012) with the participation of 128 attendees. The numbers of participants, given in Table 42, indicates that community and consultants were the majority in both meetings whereas decision-makers were better represented in the second round of meetings. Interestingly, second survey meetings aimed to collate the community interests and expectations, but the involvement of community stakeholders was surpassed by the involvement of decision-makers. However, one can infer that the number of participant consultants balances this situation and also contributes to the communication between community and decision-makers. Because, in the context of Turkey, professional chambers and universities are seen as the official influencers for authorities in decision-making processes and they advocate community's favour.

Table 42: Numbers of participants of both survey meetings

Locations	First Survey Meetings			Second Survey Meetings		
	Decision-makers	Consultants	Community	Decision-makers	Consultants	Community
Khans Area	20	12	12	27	18	18
Sultan Complexes	20	12	15			
Cumalıkızık Village	30	10	31	34	13	18
Total	70	34	58	61	31	36

Specific set of questions asked to the participants during the second survey meetings comprised:

- What are the trends for the area in the future?
- Which objectives can better promote the area in the future?
- What is the relationship between these objectives, and weaknesses and strengths of the area?
- Which strategies can be effective to achieve these objectives?
- What do you suggest as effective policies for the conservation of the area?

As a result of these community meetings, the current situation was established, and the stakeholders' expectations were determined. Data from the first round of meetings led the planning team to generate a SWOT analysis for the current situation and enabled them to use it as a basis for discussion on the second meetings, whereas the data from the second meetings was used to determine management plan strategies, vision for the heritage site, and guided the planning team in completing management plan actions. However, minutes of the meetings were recorded in a summary format not enabling the interests of different stakeholders to be examined in detail. Nevertheless, the numbers of different type of participants show that authorities and community represented almost equally in the meetings. Hence one can optimistically assume that meeting minutes cover the interests of all stakeholders. The absence of a detailed meeting report led this study to exclude actor analysis from the Audit Design for Bursa and Cumalıkızık WHS.

8.2.4. Site Management Plan

The content of the Bursa and Cumalıkızık WHS Management Plan comprised a diagnosis of the current situation (SWOT table), a vision, an analysis of the site management plan area, an itinerary, a timeline, and a full project design including themes, goals, strategies, actions, and implementation with their corresponding monitoring and assessment plans.

8.2.4.1. Vision and Analysis of the site management plan area

The vision statement for the WHS was developed based on the technical analysis of the site and the outputs of community engagement activities, and agreed as stated in the site management plan:

As the first capital city of the Ottoman Empire, to protect and preserve the Khans Region, Sultan Complexes and Cumalıkızık Village's tangible and intangible values, where traces of foundation of the Ottoman Empire can be found, and to help them survive as a world heritage.

The site management plan contained a description chapter for the sites and their buffer zones, in which cultural properties inside these sites were delineated with their respective architectural and functional details. As described in *Section 8.2.1 Site Description: Components*, each Sultan Complex and Khans Area include many cultural properties with varying functions and origins in different eras of the Ottoman Empire.

8.2.4.2. Itinerary, Timeline and Project Design

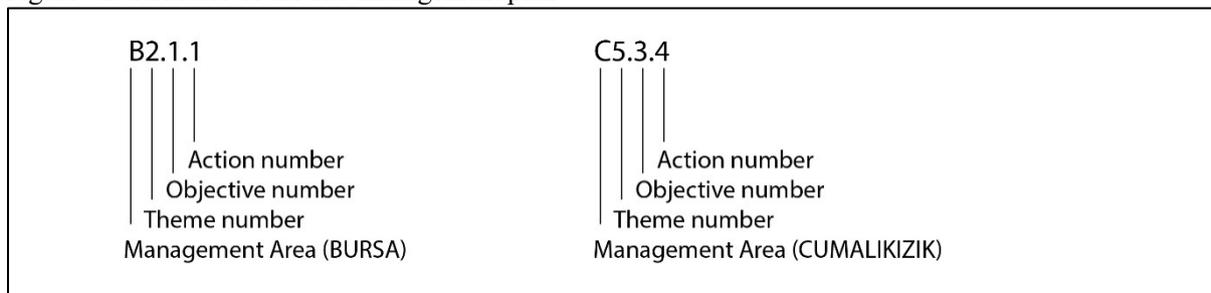
The planning themes for the Bursa and Cumalıkızık site management plan were described as stated in Table 43. These themes are processed for two main locations; Bursa and Cumalıkızık Village.

Table 43: Planning themes for the site management plan

Planning Themes	<ol style="list-style-type: none"> 1. Management "Authority, Legislation, Organization, Coordination, Participation" 2. Cultural Values - Conservation and Planning 3. Social - Economic - Environmental Life Quality 4. Training and Awareness 5. Accessibility - Transportation 6. Tourism - Promotion - Visitor Management 7. Emergency and Disaster Management
-----------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The site management plan structure is presented in Figure 91 with an illustration of its components; themes for both locations with a set of objectives and a subsequent set of related actions structuring guidelines for their implementation and monitoring. This site management plan contains 7 planning themes, 40 objectives, and 230 actions. A code system is used to keep track of the connections between objectives and actions in the management plan representing its structure. The first initial of these codes is either (B) for Bursa (Khans Area - Sultan Complexes) or (C) for Cumalıkızık Village. Numbers refer respectively to the theme, objective, and action e.g., B2.1.1 refers to the first action of first objective of second theme for Khans Area – Sultan Complexes (Figure 91).

Figure 91: Structure of the site management plan



The actions were defined in the form of project packages, and separate booklets were created for each project individually through the form of "annual work programs" featuring budget details inside them so implementing authorities could directly apply them (this means no budget features in Figure 92). Unlike the first case study, input from survey meetings was given for each objective in the action tables of Bursa and Cumalıkızık (first column of the action tables); but without connecting them directly to the stakeholders who raised them. Thus, whereas in this case issues from communities are directly connected to management plan actions, community representatives who raised them are unknown.

Figure 92: Illustrative action table from the management plan for different locations

1 - Management (Authority, Legislation, Organization, Coordination, Participation) Action Plan Table - 1/3						
BURSA (KHANS AREA AND SULTAN COMPLEXES						
ANALYSIS OF CURRENT SITUATION	OBJECTIVES	ACTION	DISTRICT	RESPONSIBLE ORGANIZATIONS AND INSTITUTIONS	SOURCE OF FINANCE	TIMEFRAME
<ul style="list-style-type: none"> • large number of institutions have authority in the area, the boundaries of authority are unclear, • expectation of special legislation for Khans Area • Lack of inspection, rapid and incorrect restoration, lack of sanctions • Insufficient Tendering legislation leading to the lack of qualified staff and experienced companies • Central and local administration involved in conservation, funds from Special Provincial Administration • On World Heritage Candidate List, adding these areas to cultural heritage 	B1.1.1	B1.1.1. Definition of scopes of authority between organizations in accordance with conservation legislation and raising awareness	Osmanlı District, Yıldırım District	BAB, BSB, Ministry of Culture and Tourism, Governor, Bursa Provincial Directorate of Tourism, Yıldırım Municipality, Demangazi Municipality, Bursa Regional Directorate of Foundations, Special Provincial Administration, Regional Conservation Committee, Universities, Trade Associations		Short Ongoing
	B1.1.2	B1.1.2. Optimization of Bursa and Cumalıkızık Management Plan, efficient use of existing legislation, development of teaching and inspection mechanisms				Short
	B1.1.3	B1.1.3. Enable decisions in the Bursa and Cumalıkızık Management Plan to be reflected in larger scale plans				Medium
	B1.1.4	B1.1.4. Ensure that "ICOMOS Impact Assessment Report" is taken in to account for all projects involving World Heritage Candidate areas				Short
	B1.1.5	B1.1.5. Ensure financial and technical support from Ministries, municipalities and universities				Short Ongoing
	B1.1.6	B1.1.6. Work together with the Conservation Committee to ensure sanctions and reviews of incorrect applications according to conservation legislation				Short Ongoing
	B1.1.7	B1.1.7. Bring special criteria to the tendering legislation to ensure that conservation is carried out by expert people/organizations, creation of technical specifications.				Medium
2- Cultural Values - Conservation and Planning Action Plan Table- 4/4						
CUMALIKIZIK VILLAGE						
ANALYSIS OF CURRENT SITUATION	OBJECTIVES	ACTION	DISTRICT	RESPONSIBLE ORGANIZATIONS AND INSTITUTIONS	SOURCE OF FINANCE	TIMEFRAME
<ul style="list-style-type: none"> • A structure with a new building permission that is built with concrete will set a precedent for the villager • Non-original applications to buildings including those purchased by the state • Authentic architectural features along with living people 	C2.4- Determination of indicators related to the degradation and destruction of cultural heritage	C2.4.1. Delineation of examples of civil architecture that are uninhabited or have changed ownership	Yıldırım District	BBB, Yıldırım Municipality, Regional Conservation Committee		Short Ongoing
		C2.4.2. Updating and approval of registration slips				Medium

8.2.4.3. Implementation, monitoring and assessment

The last section of the site management plan comprised three parts: (i) a stakeholder analysis, (ii) Bursa Site Management Model, and (iii) an explanation of the monitoring and assessment processes. Key actors were categorised as central, local, and international stakeholders. The implementation model explained the coordination and organisation structure after the approval of the plan and emphasised the roles of the Site Manager, Advisory Board, Coordination and Audit Board, and Audit Unit defined in the site management regulation.

8.3. Developing the analytical framework

After the familiarisation stage, data sources should be identified, and a coding system should be developed to associate the community-held knowledge with management plan actions.

8.3.1. Data sources

Data sources for Bursa and Cumalıkızık WHS are the summary reports of survey meetings and the site management plan. The former was recorded by the planning team during both survey meetings and comprises the issue assertions raised by stakeholders. As it was not publicly available, it was elicited from the Bursa Site Management Unit. The latter, from which management plan actions can be extracted, is a public document available on both WH Site Management website and UNESCO World Heritage website.

8.3.2. Coding and associating

Coding includes a series of iterations of scanning the text and extracting the relevant data whereas associating connects the data extracted from these two sources with each other based on their similarity in context. Issue assertions and management plan actions were coded based on the structure of the documents. In the case of Bursa and Cumalıkızık, the themes of the management plan are used for coding system because summary reports of the survey meetings and site management plan actions structured based on the planning themes of the site management plan.

As with the previous case study, associations between issue assertions and management plan actions were established by the researcher. However, this time the process was faster because each objective of the management plan already had a set of issues associated to it, meaning associations between issues and actions were undertaken within each set of objectives. This speeded up the process of associating and led to the direct application of the rule-based system to this case study right after the classification of issue assertions and management plan actions described in the next section.

Associated management plan actions and issue assertions are given in Appendix VI: Association matrix for Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS.

8.4. Extracting types and categories using IE tools

This stage involves the use of the GATE application to extract types and categories of issue assertions and management plan actions by annotating them with the predefined JAPE rules based on the previous case study. The use of GATE with JAPE rules for natural language processing is explained in *Appendix IV: How to use GATE: User Guide for Audit Design*.

GATE was run on management plan actions and issue assertions interdependently of their associations yielding surprisingly satisfactory results. Out of 230 management plan actions, 210 of them were annotated

as types, and 221 of them annotated as categories (Table 44). The majority of action types were related to policy, but the number of interventions was also relatively high. On the other hand, action categories mainly referred to heritage and communication, potentially due to the large number of cultural properties and the need to better bridge community and heritage values.

Table 44: Extraction of Types and Categories of Management Plan Actions

Types	Count	Categories	Count
Policy	87	Heritage	90
Intervention	66	Communication	56
Control	57	Research	31
Total	210	Space	25
Recall	91%	Society	19
		Total	221
		Recall	96%

Out of 240 issue assertions, 236 of them were annotated as types and 197 of them were annotated as categories (Table 45). The majority of issue assertion types were labelled as statements which indicates that participants mostly shared or expressed their opinions. Issue assertion categories are mainly labelled as heritage like management plan actions. However, the number of issue assertion categories related to space and society seems far higher, more than double, than the number of categories related to space and society in management plan actions. This deserves further inspection in the next stages of applying the method in which associations between issue assertion and management plan actions are going to be assessed.

Table 45: Extraction of Types and Categories of Issue Assertions

Types	Count	Categories	Count
Statement	126	Heritage	80
Suggestion	44	Space	56
Diagnosis	35	Society	42
Request	31	Communication	15
Total	236	Research	4
Recall	98%	Total	197
		Recall	82%

8.5. Creation of knowledge base: Connections Matrix

The knowledge base is where connections between issue assertions and management plan actions are established in relation to their types and categories. This is the input matrix for the rule-based system.

8.6. Applying rule-based system

In order to apply the rule-based system, its elements and concepts should be defined. Issue assertions, management plan actions, actors, and budget are the main elements of Audit Design. Concepts should indicate the assessment criteria for issue assertions and management plan actions.

8.6.1. Knowledge transfer concepts

In the case of Bursa and Cumalıkızık, concept Knowledge transfer: management plan actions and concept Knowledge transfer: issue assertions are defined based on rules described in (Figure 93 and Figure 94, respectively). If a management plan action is addressing to issue assertion/s, it would be assessed by the rule-based system, otherwise it will be discarded as it does not contain material for inspection with regards to community-held knowledge transfer. If an issue assertion is addressed by management plan action/s, it would be assessed by the rule-based system, otherwise it would be flagged as an inference with "no transfer". As in this case study no budget or actors were available for scrutiny, concepts for them were not defined as part of the rule-based system.

Figure 93: Concept Knowledge transfer: management plan actions

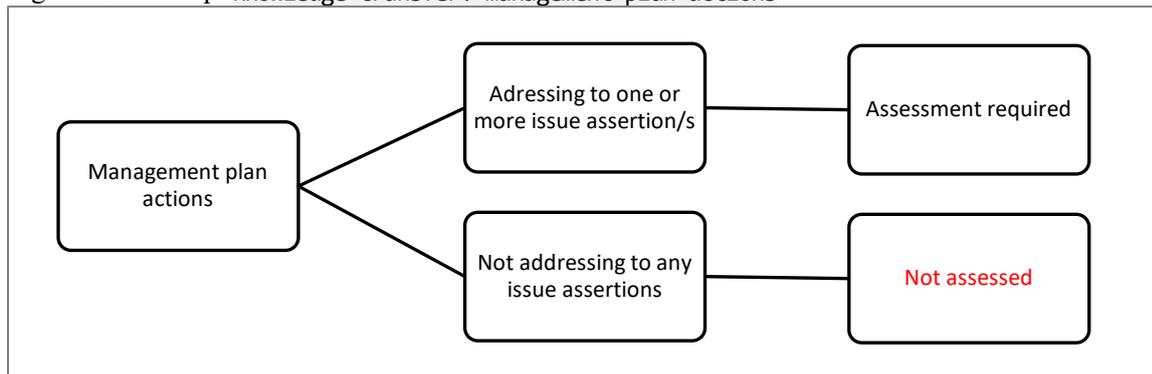
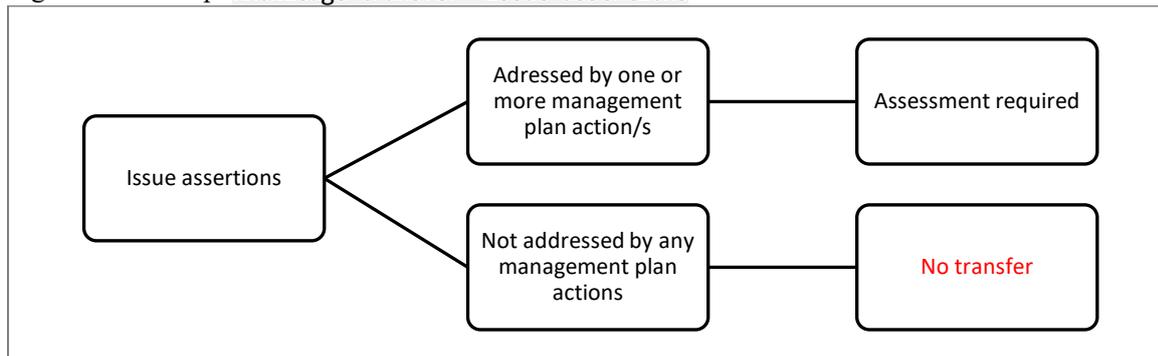


Figure 94: Concept Knowledge transfer: issue assertions



8.6.2. Actor comparisons

As explained in Section 8.2.3 Site Management Plan Preparation Process, discussions of survey meetings were reported in summary format, not including information about stakeholders behind each issue assertion. As a result, no actor comparison was undertaken in this case study. The assumption used was that the community was involved in all the discussions as equally as the decision-makers based on the actor analysis on Section 8.2.3, Table 42.

8.6.3. Inferences based on types and categories

The last stage of Audit Design is extracting inferences in a natural language representation format to establish knowledge transfer. To employ the aforementioned concepts, an Excel spreadsheet is used to run the inference engine on the knowledge base. Extracted inferences with corresponding connections of issue

assertions and management plan actions are given in Appendix VII: Bursa and Cumalıkızık: Audit Design Knowledge Transfer Assessment Results.

8.7. Rendering inferences

Out of the 289 connections between issue assertions and management plan actions, 91 of them were classified according to different degrees of knowledge transfer as stated in the first part of Table 46 (going from ‘full’ to ‘no transfer’). 34 out of the 289 connections resulted in only content inferences, meaning connections between issue types and categories and action types and categories were established but not assessed with regards to knowledge transfer as they were not learnt by the system in the previous case study. The remaining 99 connections resulted in blank inferences as despite having type and category data, they were not present in the previous case study and therefore never seen by the system.

The connections in which knowledge is fully transferred covers 2.4% of the dataset, whereas knowledge is partially transferred in 14.9% of the connections. 41 of the connections were classified as not transferred because there was either an issue assertion missing to connect to a management plan action, or an action not connected to any issue assertion. As a result, Audit Design assessed 31.5% of the 286 connections.

8.7.1. Overall Results

Table 46: Inference Engine Results for Bursa and Cumalıkızık WHS

Knowledge Transfer Level	Number of Connections	Percentage
Full	7 – fully transferred	2.4% - fully transferred
P-full	43 – partially transferred	3.8%
Partial		6.6%
N-partial		4.5%
No transfer	41 – not transferred	14.2% - not transferred
Subtotal	91	31.5%
Not assessed	65	22.5%
Content inferences	34	11.8%
No inferences	99	34.2%
Total	289	100%

65 connections were not assessed because of missing information with regards to type or category, i.e., they were the issues and actions deemed unlabelled by GATE. The 11.8% of the connections which yielded content inferences are further detailed in Table 47 and can be added as new knowledge to the rule-based system. One can infer that they are mostly about heritage and comprise control and intervention actions developed from community statements. Curiously, there was no issue type labelled as diagnosis among these connections. Inferences for the remaining 34.3% of the connections contain 64 different kinds of unseen associations. They need to be qualitatively assessed so inferences can be created and added to the rule-based system as additional knowledge.

The leverage of these blank inferences in the second case study allows for an opening to improve the method and increasing its applicability to other cases. These connections should be assessed, and inferences should be created to improve the robustness of the method. However, this further assessment would not take place within the frame of this research.

Table 47: Content Inferences and their count

Natural Language Representation of Content Inferences	Count
A situation related to heritage is controlled.	9
An intervention is taken for a request related to heritage.	5
An intervention on heritage is taken for a situation related to heritage.	5
A policy decision on heritage is made for a situation related to heritage.	4
A request on heritage is controlled.	3
A spatial situation is controlled by a spatial action.	3
A policy decision is made for a suggestion on heritage.	2
A policy action on heritage is made for a spatial request.	1
A spatial policy decision is made for a spatial suggestion.	1
An intervention on heritage is taken for a spatial request.	1

A deeper examination on inference results (Table 48) shows that knowledge was fully transferred when the community provided diagnoses or requests. Table 48 also shows that, community-held knowledge was addressed mainly in policy actions in which the community expressed their opinion in the form of statements or diagnosis.

Table 48: Natural Language Representation of inferences and their count

Natural Language Representation of Inferences	Count
A social policy decision is made for a social request. Knowledge transfer level: full.	3
A communicative policy decision is made for a spatial diagnosis. Knowledge transfer level: full.	2
A communicative policy is made for a spatial request. Knowledge transfer level: full.	1
A spatial policy decision is made for a spatial diagnosis. Knowledge transfer level: full.	1
An intervention action is taken on a diagnosis related to heritage. Knowledge transfer level: p-full.	3
A social policy decision is made for a situation related to society. Knowledge transfer level: p-full.	2
An intervention action is taken on a diagnosis related to heritage. Knowledge transfer level: p-full.	2
A communicative policy decision is made for a diagnosis related to society. Knowledge transfer level: p-full.	1
A communicative suggestion is considered by a spatial intervention. Knowledge transfer level: p-full.	1
A diagnosis related to society is controlled. Knowledge transfer level: p-full.	1
A spatial diagnosis is controlled by a research action. Knowledge transfer level: p-full.	1
A communicative policy decision is made for a situation related to society. Knowledge transfer level: partial.	6
A communicative policy decision is made for a spatial situation. Knowledge transfer level: partial.	4
A suggestion on heritage is controlled. Knowledge transfer level: partial.	4
A policy decision is made for a diagnosis related to heritage. Knowledge transfer level: partial.	3
A diagnosis related to heritage is controlled by a research action. Knowledge transfer level: partial.	1
A spatial suggestion is considered by a spatial intervention. Knowledge transfer level: partial.	1
A spatial policy decision is made for a spatial situation. Knowledge transfer level: n-partial.	5
A heritage policy decision is made for a spatial situation. Knowledge transfer level: n-partial.	4
A spatial situation related to heritage is controlled. Knowledge transfer level: n-partial.	3
A spatial request is controlled by a research action. Knowledge transfer level: n-partial.	1

Table 48 reveals that the issue assertions about space and the requests about society are addressed fully by policy actions whereas the level of knowledge transfer for some statement issues from society category

addressed by policy actions is p-full. On the other hand, some of the statements about both space and society are addressed partially by communication policies.

Heritage related diagnosis and suggestions are partially transferred to the policy and control actions whereas the level of knowledge transfer is identified as p-full for some diagnosis about heritage addressed by intervention actions.

From the results, one can infer that the assessed connections were 31.5% of the total. From this 31.5%, around 15% partially and 2.4% fully transferred the community-held knowledge to management plan actions which is higher than its half. Therefore, one can infer that management plan was successful in terms of addressing community aspirations. However, the types of these addressing actions are mostly policy which poses the question how site management plan addresses issue assertions mostly related to heritage and space (see Table 45 on page 128). This question can unravel the different approaches taken by authorities while addressing community issues.

8.7.2. Results based on the issues raised by the community

For Bursa and Cumalıkızık WHS, the community shared their views on four categories: heritage, space, society, and communication. A closer look to the results reveals that the issues raised in Survey Meetings are mostly about heritage and space (Table 49).

Table 49: Distribution of the levels of knowledge transfer based on the categories of issue assertions

Categories of issue assertions	Levels of knowledge transfer					Total
	full	p-full	partial	n-partial	No inferences	
Heritage	-	5	8	-	62	75
Space	4	1	5	13	34	57
Society	3	4	6	-	22	35
Communication	-	1	-	-	11	12
Research	-	-	-	-	4	4

Table 49 shows that no inferences were produced for most of the heritage related issues whereas knowledge transfer occurred partially for the ones assessed by Audit Design even though it is the biggest concern of the community. On the other hand, space is another major issue category in which the community raised their views but once again the Audit Design failed to create inferences for the knowledge transfer levels for most of them. Space and society related issues are the only ones fully addressed by the management plans whereas all the categories were addressed partially ranging from p-full to n-partial levels. Interestingly, space related issues are the only ones that the level of knowledge transfer is gauged as n-partial. However, most of the connections were not assessed in terms of their knowledge transfer level because the previous study did not have these types of connections, and so the Audit Design could not produce any inferences for them. The Audit Design can be upgraded by manually assessing those unassessed connections and adding the level of knowledge transfer values to the system. Applying the method to more case studies would enrich the model and so results would become more legitimate.

8.8. Conclusion

The third objective of the thesis is accomplished by this chapter, testing and validating it in the context of Turkey by deploying it to another case study. Consequently, the chapter is concluded with two key points: its potential and its transferability.

Considering the stages of the Audit Design, it is easily transferable to any other heritage management plan prepared with the participation of the community. The first two stages are only about learning the heritage site and understanding its components and its OUV, identifying data sources and developing the analytical framework for coding and associating.

In the third stage, extraction of types and categories is an automated process however some heritage sites might require adding new information to the system. For example, the first case study was included a site-specific activity which is agriculture, therefore it was added to the list of categories. In another case study, this can be intangible cultural heritage or indigenous people. In order to maintain its transferability, in those cases, the new information should be added to the Audit Design. Besides, this would upgrade the method and increase its robustness.

The fourth stage is the creation of the knowledge base which is the connections of issue assertions and associated management plan actions together with their type and category information. However, the fifth stage is another critical stage in which the knowledge transfer concepts should be defined, and formulas should be applied to render inferences in the forms of natural language representations.

In this study, the Audit Design is deployed two extreme case studies regarding the management plan structures. In the first case study, management plan actions were defined in different forms such as activity, action with budget and project, and the actors were identified as beneficiaries, consultants and implementers. Focus group meetings were reported with the information on who raised which issues and whether they are community or non-community stakeholders. Therefore, concepts of knowledge transfer were defined regarding all these information. However, in the second case study, management plan actions were merely stated without budget data and survey meetings were reported by collating all the issues without stakeholder data who raised them. The former provided a good starting point for the method to be developed and the latter exemplified a case in which the data is scarce. In the assessment, the content of issues and actions are the essential inputs, whereas actor and budget information may or may not be present. Consequently, the method has been proved to be transferable for any type of management plans.

The second key point, its potential, revealed by testing it on the second case study which showed that:

- Connections were assessed with regards to content and level of knowledge transfer only because there were no budget and actors to be assessed. Therefore, a new set of predefined concepts were outlined specifically for Bursa and Cumalıkızık case study to assess these connections. (Concept Knowledge transfer: management plan actions and concept Knowledge transfer: issue assertions)
- Either type or knowledge domain information was missing for issues and/or actions in some connections (22.5% in the case of Bursa and Cumalıkızık). These were labelled as "not assessed".

- Complete natural language representations (including level of knowledge transfer and content inferences) were produced for 31.5% of the connections from which 17.3% of them were classified as transferring community knowledge at different levels whereas the remaining was classified as not transferred.
- For 11.8% of the connections, only content inferences were produced. This is because inference rules were derived based on the development of Audit Design using the previous case study, meaning the level of knowledge transfer for these connections was absent there.
- The remaining connections (34.2%) did not even have content inferences attribute to them. This is because they were unseen in the previous case study, meaning they need to be qualitatively assessed so inferences can be created and added to Audit Design.

Chapter 9. Conclusion

This chapter concludes the study in two fronts, by providing a general evaluation of the thesis and discussing its main contributions and further research. The general evaluation summarizes the achieved results in the pursuit of the research aim and objectives. The main contribution of the study comprises a theoretical proposition: The introduction of a dual agent, named Citizen Professional, put forward as a more efficient bridge between technical and local knowledge with their contribution assessed via a new methodological proposition: The Audit Design. The theoretical proposition of citizen professional as the site managers in heritage management practices needs further work to assess their effectiveness, however, the research is grounded on the assumption that they are instrumental in the process of community-held knowledge transfer based on the literature review. The greatest contribution of this study is the methodological one: the Audit Design, gauging community-held knowledge transfer into heritage management plans.

9.1. The achieved results

This research opened a new discussion on participatory approaches facilitated by the idea of the dual agent: citizen professional, a professional with local knowledge and at the same time an expert in heritage studies. Even though involvement of local communities has become an essential part of conservation studies or practices, the question of how much experts achieve to engage with locals and integrate their ideas into practice remains as a gap in the literature. This research aims to gauge the level of knowledge transfer from community meetings to site management plans since they are the only official documents ensuring the safeguarding of heritage sites and assets. In contemplation of this aim an epistemological cross-disciplinary literature review was undertaken to encapsulate community involvement debates from urban planning, social sciences, and urban conservation domains.

Heritage management processes were examined firstly in the context of World Heritage Sites with a specific focus on community involvement and subsequently in the context of Turkey. UNESCO's approach to participatory heritage management was outlined through charters and operational guidelines and the importance of a management plan as a documentary evidence of participatory management system revealed in this review. The participative approach in heritage management in the context of Turkey was described in terms of the enactment of the Site Management regulation in 2005 (Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005) from which community involvement became a requirement in the preparation of site management processes. This regulation also formally established the structure of a management plan and described the role of a site manager in this process, as a dual agent with local and expert knowledge.

The idea of the citizen professional was compared with the site manager role defined in the Turkish regulations and considered as analogous to it. However, the contribution of this dual agent in the effectiveness of bridging local and technical knowledge was yet to be assessed. Therefore, the following research questions were put forward and addressed throughout this thesis:

- Can this site manager / citizen professional effectively translate community knowledge into actions proposed in WHS management plans?
- How much of what was discussed in two case study community meetings was effectively translated into management plan actions, so community values were actually embedded in WHS management plans?

Two case studies selected in which a site manager coordinates the heritage management and has both local and technical knowledge as in the definition of citizen professional role. The level of knowledge transfer is, therefore, assessed to answer the research questions. The assumption of site managers considering as the citizen professionals in the selected case studies is confirmed with the results of high levels of knowledge transfer (67.5% transfer in the first case study, 55% transfer in the second case study). In case of WH management, the scope of the management plan is expected to be parallel with the site's OUV. However, in the case studies assessed, the societal challenges prevailed over the safeguarding the OUV of the WHS. Nevertheless, the management plans prospered to address those issues beyond the scope of WH management. Thus, the results of knowledge transfer over 50% indicate that the inclusion of the communities was successful, and the community-held knowledge is transferred to the management plans.

Firstly, the Qualitative Audit Method was proposed to assess the level of knowledge transfer between focus group meetings and management plan actions. Despite the potential of providing a thorough assessment, this qualitative method was extremely lengthy in terms of its application and produced a large volume of data to be interpreted, jeopardizing its transferability to other contexts. Therefore, the method was automated as much as possible and further refined integrating the qualitative analysis into knowledge representation methods with Natural Language Processing and rule-based analysis methods.

Differently from the Qualitative Audit Method, Audit Design, the semi-automated method, facilitated the automation in identifying correspondences between community input and management plan actions via the Framework Method (Spencer et al. 2014a; Spencer et al. 2014b) deployed with the support of Natural Language Processing tools (Jackson and Moulinier 2007; Thakker et al. 2009). It also produced pre-defined inferences allowing one to interpret the results more effectively. This semi-automated method, firstly, was developed on the Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS and was validated by comparing its results with the Qualitative Audit Method, previously developed. It is then tested on Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS.

Results from both case studies (Table 50) show Audit Design has great potential to scrutinise community involvement in the development of management plans for World Heritage Sites as it can assess and gauge knowledge transfer with some nuances expressed in terms of percentages of transferability. These nuances can be used to establish benchmarks for comparisons as well as benchmarks of acceptance either in Turkey and/or UNESCO to better ensure the involvement of communities in the development of values and the management of WHS.

Table 50: Results of the Level of Knowledge Transfer Assessment via Audit Design

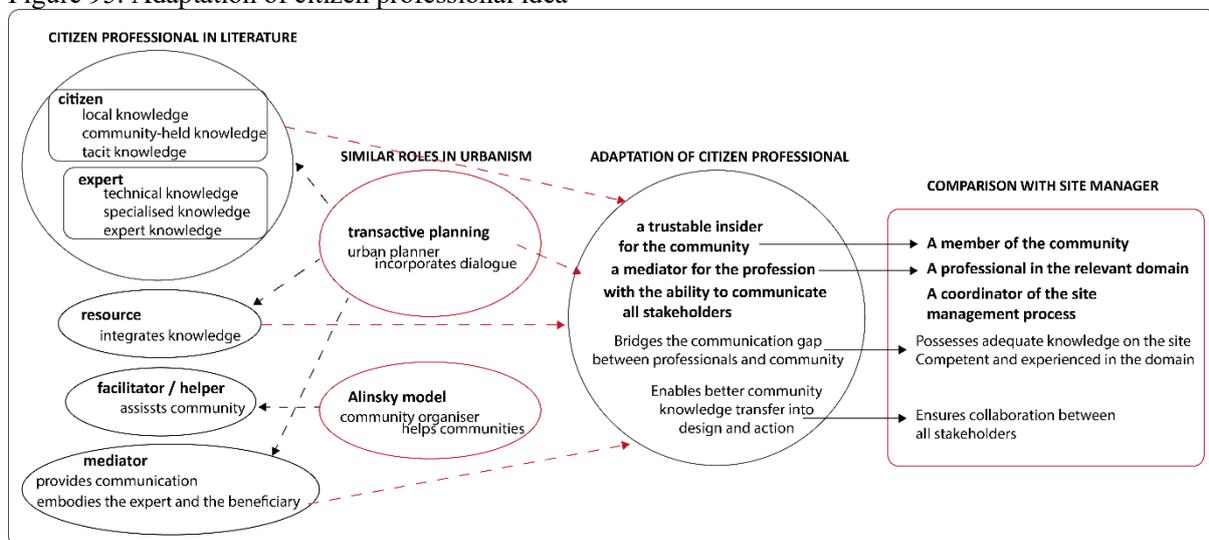
Case Study	Fully transferred knowledge		Partially transferred knowledge		Not transferred knowledge		Total number of assessed connections	
	Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS	17	14.2 %	66	55.0 %	37	30.8 %	120	100%
Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS	7	7.7 %	43	47.3 %	41	45.0 %	91	100%

Semi-automated method deduced the time to undertake the assessment prominently. The researcher completed the deployment of Qualitative Audit Method in six months whereas this time lessened to a month for the deployment of the Audit Design. The deployment of the method to different case studies, and as such, the further additions to the knowledge base potentially enrich the model and increase the time savings.

9.2. Contributions of the study

This research contributed to the community involvement literature by merging the idea of the citizen professional from health care, political sciences and sociology domains with the one of the site manager defined by the Turkish site management regulations and practice (Figure 95).

Figure 95: Adaptation of citizen professional idea



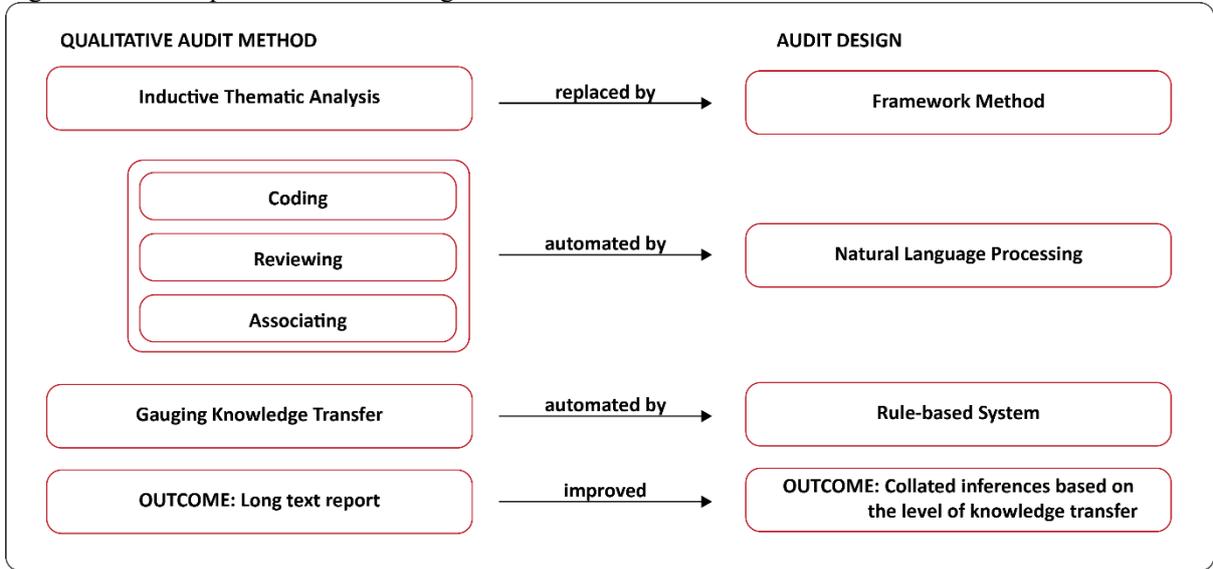
Based on the literature review, the citizen professional role proposes an objective way to test community knowledge transfer to WHS but can be transferable to other contexts such as urban planning. The role and its attributes can be defined as below:

- Citizen professional is a trustable insider for the community with the ability to communicate to all stakeholders and act as a mediator for the profession.
- They possess adequate knowledge of the area and can manifest the contextual issues of the built environment.
- They have the ability to integrate technical knowledge and local knowledge transferring it into action as an expert in the relevant field and bridges the communication gap between professionals and community by enabling better community knowledge transfer into design and action.

However, the effectiveness of this professional was still to be assessed. The larger contribution of this research was, therefore, in the assessment of knowledge transfer either directly via the community or through the citizen professional, an important and completely under explored area in heritage studies.

The qualitative audit method combining inductive thematic analysis from qualitative research methods and information extraction techniques from knowledge engineering pioneered in formalising the extraction of patterns of knowledge transfer embracing a data-driven approach with a semantic focus (Braun et al. 2016). It introduced the idea of information extraction based on the process of scanning text to search for information of some interest (Hobbs and Riloff 2010) in management plans and their associated documents. In essence, the use of information extraction techniques to search for associations and to review and refine the thematic analysis ensured the development of a consistent and coherent procedure establishing a robust and reproducible blueprint for the assessment of these documents. The outcome was a long assessment report for each pattern of knowledge transfer but at the same time a robust data set to be used as a basis to develop and validate a semi-automated system.

Figure 96: Development of Audit Design method



Audit design was therefore, born out of this basis. Good validation results ensured its robustness, and the extensive dataset of associations encouraged its transferability to other cases. Its computational tools are easy to use and can be deployed in practice with some training and detailed instructions. It only requires two types of data input: (i) community meeting reports and (ii) site management plan actions; from which a knowledge base is produced using automated extraction techniques from Natural Language Processing (NLP) (Jackson and Moulinier 2007). Information Extraction (IE), one of the subfields of NLP, is employed and the data extracted from the process is structured into a knowledge base that will comprise a matrix of connections of described types and categories of issue assertions and management plan actions.

The generated knowledge base is used, then, to make inferences about different levels of knowledge transfer from community focus group meetings to the site management plan using a rule-based method from the knowledge representation domain (Davis et al. 1993; Grosan and Abraham 2011; Musen 2014). Inferences are drawn from if-then rules using prescribed concepts which define the way of associating community input and management plan actions, partially accommodating nuances in them (full, p-full, partial, n-partial, no transfer, not assessed). The context of associations is broad enough to be transferred to other management plans as the pre-defined knowledge domains (space, society, heritage, communication, agriculture, research), types of community input (statement, suggestion, diagnosis, request) and the types of management plan actions (policy, control, intervention) are recurrent patterns in management plans and their associated documents. This set of inputs is therefore rich enough to be transferable to the whole context of WHS in Turkey from which a diverse set of associations can be gauged with regards to knowledge transfer enriching the original set of inference rules proposed in this thesis. I.e., Audit Design can be constantly refined through the inclusion of further inference rules once fed by more case studies, expanding its applicability to the whole context of Turkey and beyond. Preliminary results in testing it in other countries were already briefly discussed in Chapter 7 (see page 82), as part of the validation of the information extraction rules, showing its potential to be applied in WHS outside Turkey.

Furthermore, the Audit Design potentially contribute to the management process itself by deducing priorities of the heritage management for a particular heritage site, only if the benchmarks are set for the hierarchy of priorities. Since the management plans are subjected to a limited timeframe, a universal management plan template would enable this hierarchical assessment of priorities as well as accelerates the deployment of the method.

Based on the assessments, a management plan should be structured containing actions and their responsible actors, and if possible, consultants to actions and beneficiaries of actions and budget information required for the actions to be implemented. Even though, the indicator of the UN Sustainable Development Goal 11.4 is criticised due to the use of total expenditure per capita as the only indicator (Petti et al. 2020, p.8), a budget can also be considered an indicator of the required sources for the implementation and can help the management to determine their priorities. In this study, the budget refers to a statement of the required amount rather than the reserved amount and contributes to the assessment regarding its credibility.

On the other hand, the community input can be in the form of a separate document or embedded in the management plan. It can be better evaluated if the stakeholder information is provided. In any case, coding

and associating stage would be manual, therefore, if the management plan structured in a manner containing this associations, the process becomes faster for the assessment.

One of the expected outcomes of the deployment of the Audit Design are the types and categories of management plan actions and community input which determines the content of the discussions of the communities and the management plan. The main outcome of the method is the levels of the knowledge transfer from the communities to the management plans.

9.3. Further Studies

This study proposes an assessment method to scrutinise community involvement in the management of World Heritage Sites by gauging the knowledge transfer from communities to site management plans in heritage management processes of WHS. Further studies can be done in two fronts; firstly, to further develop the theoretical discussions on the citizen professional role in heritage management domain, and secondly, to enrich the Audit Design method regarding inferences.

The role of site managers in heritage management processes can be discussed further to define its attributes universally and to assess its effectiveness in the process of community engagement. Possibly, empirical studies can be conducted on the effectiveness of their role as citizen professionals to contribute both the literature and the heritage management practice.

Even though the research provides a clear set of guidelines for the application of the proposed method, to better understand the implications of the Audit Design, it can be further tested in different World Heritage Sites from different contexts to build on and enrich it.

Bibliography

- Aarhus Convention 1998. Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters. *International Legal Materials* 38(3), pp. 517–533. doi: 10.1017/s0020782900019203.
- Akan Architecture 2013. *Bursa (Khans Area & Sultan Complexes) and Cumalıkızık Management Plan*. Bursa Metropolitan Municipality.
- Arnstein, S.R. 1969. A Ladder Of Citizen Participation. *Journal of the American Planning Association* 35(4), pp. 216–224. doi: 10.1080/01944366908977225.
- Arnstein, S.R. 2004. Citizen Participation is citizen power. *A ladder of Citizen Participation* 35(4), pp. 216–224.
- Arslan, T.V. 2015. Developing a strategic approach for managing sustainable revitalisation in world heritage sites: Historical Bazaar and Khans District, Bursa - Turkey. *Archnet-IJAR* 9(1), pp. 289–304. doi: 10.26687/archnet-ijar.v9i1.520.
- Arslan, T.V. and Cahantimur, A. 2011. Revival of a traditional community engagement model for the sustainable future of a historical commercial district: Bursa/Turkey as a case. *Futures* 43(4), pp. 361–373. Available at: <http://dx.doi.org/10.1016/j.futures.2011.01.003>.
- Aydin, G. et al. 2019. Assessing the Transition From Traditional To Participatory Heritage Management In Turkey. In: Drew, M. J. and Eggleston, J. eds. *AESOP Planning For Transition Book of Papers*. Venice: IUAV, pp. 21–34.
- Bilgin, E.A. et al. 2019. Physical Changes in World Heritage Sites under the Pressure of Tourism: The Case of Cumalıkızık Village in Bursa. *European Journal of Sustainable Development* 8(2), p. 249. doi: 10.14207/ejsd.2019.v8n2p249.
- Bishop, P. and Davis, G. 2002. Mapping Public Participation in Policy Choices *. 61(March), pp. 14–29.
- Box, R. 1998. *Citizen Governance: Leading American Communities into the 21st Century*. California: SAGE Publications, Inc. doi: 10.4135/9781483328249.
- Boyte, H.C. 2008a. Citizen Professionals. In: *The Citizen Solution: How You Can Make A Difference*. Minnesota Historical Society Press, pp. 143–57.
- Boyte, H.C. 2008b. *The Citizen Solution: How You Can Make a Difference*. Minnesota Historical Society Press.
- Boyte, H.C. and Kari, N.N. 1996. *Building America: The Democratic Promise of Public Work*. Philadelphia: Temple University Press.
- Braun, V. et al. 2016. Using thematic analysis in sport and exercise research. *Routledge Handbook of Qualitative Research in Sport and Exercise*, pp. 191–205.
- Braun, V. and Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2), pp. 77–101. doi: 10.1191/1478088706qp063oa.
- Callahan, K. 2007. Citizen participation: Models and methods. *International Journal of Public Administration* 30(11), pp. 1179–1196. doi: 10.1080/01900690701225366.
- Carmona, M. et al. 2010. *Public Places, Urban Spaces: The Dimensions of Urban Design*. 2nd ed.

- Carmona, M. ed. Routledge.
- Carpenter, S.L. and Kennedy, W.J.D. 1988. *Managing public disputes : a practical guide for government, business, and citizens' groups*. Jossey-Bass.
- Carter, B. and Grimwade, G. 1997. Balancing use and preservation in cultural heritage management. *International Journal of Heritage Studies* 3(1), pp. 45–53. doi: 10.1080/13527259708722186.
- Chamber of Architects of Turkey [no date]. Aims and Responsibilities. Available at: <http://www.mimarlarodasi.org.tr/english/index.cfm?sayfa=belge&sub=list&bid=216&mid=216> [Accessed: 15 January 2020].
- Chowdhury, G.G. 2003. Natural language processing. *Annual Review of Information Science and Technology* 37(1), pp. 51–89. Available at: <https://asistdl.onlinelibrary.wiley.com/doi/abs/10.1002/aris.1440370103>.
- Cunningham, H. et al. 2014. *Developing Language Processing Components with GATE Version 9 (a User Guide)*. University of Sheffield Department of Computer Science.
- Dale, R. 2010. Classical Approaches to Natural Language Processing. In: Indurkha, N. et al. eds. *Handbook of Natural Language Processing*. London, UNITED KINGDOM: CRC Press LLC, pp. 3–8. Available at: <http://ebookcentral.proquest.com/lib/cardiff/detail.action?docID=565922>.
- Dalkılıç, N. and Nabikoğlu, A. 2012. The architectural features of the Diyarbakir city walls: A report on current status and issues of conservation. *Mediterranean Archaeology and Archaeometry* 12(2), pp. 171–182.
- Davidoff, P. 1965. Advocacy and Pluralism in Planning. *Journal of the American Institute of Planners* 31(4), pp. 331–338. doi: 10.1080/01944366508978187.
- Davidson, S. 1998. Spinning the wheel of empowerment. *Planning* , pp. 14–15.
- Davis, R. et al. 1993. What is a knowledge representation? *AI Magazine* 14(1), pp. 17–33. doi: 10.1007/978-1-4612-4792-0_1.
- Davoudi, S. 2003. Participation in planning for sustainability. *Urbanistica* (120), pp. 119–129.
- Dey, I. 2003. *Qualitative data analysis: A user-friendly guide for social scientists*. doi: 10.4324/9780203412497.
- Doherty, W. 2017. The Citizen Professional Idea. Available at: <https://www.cehd.umn.edu/fsos/research/cpc/idea.asp> [Accessed: 1 November 2019].
- Doherty, W.J. 2013. The Citizen Professional: Working with Families and Communities on Problems People Care About. *Italian Journal of Sociology of Education* 5(3), pp. 111–126.
- Durak, S. et al. 2016. Significance of Cultural Heritage Preservation in Sustainable Cultural Tourism: Muradiye Complex in Bursa, Turkey. *European Journal of Sustainable Development* , pp. 1–12. doi: 10.14207/ejsd.2016.v5n4p1.
- Emerick, K. 2013. Tourism and archaeological heritage management at Petra: driver to development or destruction? *International Journal of Heritage Studies* 19(1), pp. 116–118. doi: 10.1080/13527258.2013.737529.
- Fainstein, S.S. 2000. New Directions in Planning Theory. *Urban Affairs Review* 35(4), pp. 451–478. doi:

- 10.1177/107808740003500401.
- Fischer, F. 2000. Citizens, Experts, and the Environment: The Politics of Local Knowledge. *Contemporary Sociology*, p. 352. doi: 10.2307/3090060.
- Friedmann, J. 1973. *Retracking America: a theory of transactive planning*. Anchor Press.
- Gibson, T. 1986. Decision-making in neighbourhood design and development. 7(3), pp. 163–166.
- Glass, J.J. 1979. Citizen participation in planning: The relationship between objectives and techniques. *Journal of the American Planning Association* 45(2), pp. 180–189. doi: 10.1080/01944367908976956.
- Grishman, R. 2019. Twenty-five years of information extraction. *Natural Language Engineering* 25(6), pp. 677–692. doi: 10.1017/S1351324919000512.
- Grosan, C. and Abraham, A. 2011. Rule-Based Expert Systems. In: *Intelligent Systems. Intelligent Systems Reference Library*. Berlin, Heidelberg: Springer, pp. 149–185. Available at: http://link.springer.com/10.1007/978-3-642-21004-4_7.
- Güçhan, N.Ş. and Kurul, E. 2009. A History Of The Development Of Conservation Measures In Turkey: From The Mid 19th Century Until 2004. *METU Journal of the Faculty of Architecture* 26(2), pp. 19–44. doi: 10.4305/METU.JFA.2009.2.2.
- Guzmán, P.C. et al. 2017. Measuring links between cultural heritage management and sustainable urban development: An overview of global monitoring tools. *Cities* 60, pp. 192–201. Available at: <http://dx.doi.org/10.1016/j.cities.2016.09.005>.
- Halifeoğlu, M. et al. 2009. The Measured Drawings, Restitution and Restoration Projects of Diyarbakır Tigris (Ten-Eyed) Bridge. In: *Uluslararası katılımlı tarihi eserlerin güçlendirilmesi ve Geleceğe Güvenle Devredilmesi Sempozyumu*. Diyarbakır, pp. 137–154.
- Hall, S.H. and Couto, R.A. 2012. Citizen professionals: the effective practices of helping community organizations. In: Gallagher, D. R. ed. *Environmental Leadership: A Reference Handbook*. Thousand Oaks: SAGE Publications, Inc., pp. 264–272. doi: 10.4135/9781452218601 NV - 2.
- Han, F. et al. 2016. How to promote sustainable relationships between heritage conservation and community, based on a survey. *Sustainability (Switzerland)* 8(9). doi: 10.3390/su8090886.
- Healey, P. 1997. *Collaborative planning : shaping places in fragmented societies*. UBC Press.
- Hobbs, J.R. and Riloff, E. 2010. Information Extraction. In: Indurkha, N. et al. eds. *Handbook of Natural Language Processing*. London, UNITED KINGDOM: CRC Press LLC, pp. 511–532. Available at: <http://ebookcentral.proquest.com/lib/cardiff/detail.action?docID=565922>.
- Hodges, A. and Watson, S. 2000. Community-based Heritage Management: a case study and agenda for research. *International Journal of Heritage Studies* 6(3), pp. 231–243. Available at: <http://www.tandfonline.com/doi/abs/10.1080/13527250050148214>.
- Hribar, M.Š. et al. 2015. Sustainable Heritage Management: Social, Economic and Other Potentials of Culture in Local Development. *Procedia - Social and Behavioral Sciences* 188, pp. 103–110. Available at: <http://dx.doi.org/10.1016/j.sbspro.2015.03.344>.
- ICOMOS 2014. *Bursa and Cumalıkızık (Turkey) No 1452*.

- ICOMOS 2015. *Diyarbakır Fortress and Hevsel Gardens Cultural Landscape (Turkey) No 1488*.
- ICOMOS *The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas*. Paris. Available at:
https://www.icomos.org/Paris2011/GA2011_CIVVIH_text_EN_FR_final_20120110.pdf.
- ICOMOS *Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas*. Xi'an, China. Available at: <https://www.icomos.org/images/DOCUMENTS/Charters/xian-declaration.pdf>.
- ICOMOS Australia 1979. Burra Charter.
- ICOMOS Australia 1987. *The Australia ICOMOS charter for the conservation of places of cultural significance (the Burra Charter): Guidelines to the Burra Charter : cultural significance and conservation policy*. Sydney, New South Wales, Australia: ICOMOS Australia. Available at: <https://australia.icomos.org/publications/burra-charter-practice-notes/burra-charter-archival-documents/>.
- ICOMOS Australia 1999. The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance., p. 23.
- ICOMOS Canada 2008. Québec Declaration on the Preservation of the Spirit of Place. doi: 10.1017/S0940739108080430.
- Ikarya Consulting 2015. Diyarbakır Kalesi ve Hevsel Bahçeleri Kültürel Peyzajı Alan Yönetim Planı., pp. 1–361. Available at: <https://kvmgm.ktb.gov.tr/TR-204384/ulusal-yonetim-planlari.html>.
- Innes, J.E. 1996. Planning through consensus building: A new view of the comprehensive planning ideal. *Journal of the American Planning Association* 62(4), pp. 460–472. doi: 10.1080/01944369608975712.
- Jackson, P. and Moulinier, I. 2007. *Natural Language Processing for Online Applications : Text retrieval, extraction and categorization*. Second rev. Amsterdam: John Benjamins Publishing Company. Available at: <http://ebookcentral.proquest.com/lib/cardiff/detail.action?docID=622897>.
- Jokilehto, J. 2017. World Heritage and Community Involvement. In: *Living in World Heritage and Community Involvement*. Rauma: Nordic World Heritage Conference
- Kamer, H. 2017. Diyarbakır'da türkülere konu olan tarihi Kırklar Dağı'ndaki konutların yıkımı başladı. *BBC News Türkçe* 29 December. Available at: <https://www.bbc.com/turkce/haberler-turkiye-42511243>.
- Karacadağ Development Agency 2013. *Diyarbakır Surici Socio-economic Analysis Report*.
- Kivilcim, Z. 2018. Gendering the State of Emergency Regime in Turkey. *Les cahiers du CEDREF* (22), pp. 94–108. doi: 10.4000/cedref.1122.
- Krumholz, N. 1982. A Retrospective View of Equity Planning Cleveland 1969–1979. *Journal of the American Planning Association* 48(2), pp. 163–174. doi: 10.1080/01944368208976535.
- Kuhlmann, E. 2006a. Towards 'citizen professionals': contextualising professions and the state. In: *Modenising health care: Reinventing professions, the state and the public*. Bristol: The Policy Press, pp. 15–36.

- Kuhlmann, E. 2006b. Towards 'citizen professionals': New patterns of professionalism in health care in Germany. *Knowledge, Work and Society* 4(1), pp. 59–81.
- Kuhlmann, E. 2013a. Sociology of Professions: Towards International Context-Sensitive Approaches. *South African Review of Sociology* 44(2), pp. 7–17. doi: 10.1080/21528586.2013.802534.
- Kuhlmann, E. 2013b. Sociology of Professions: Towards International Context-Sensitive Approaches. *South African Review of Sociology* 44(2), pp. 7–17. doi: 10.1080/21528586.2013.802534.
- Labadi, S. et al. 2021. *Heritage and Development Goals: the Sustainable Policy Guidance for Heritage and Development Actors*. Paris: ICOMOS. Available at: <https://www.un-page.org/page-and-sustainable-development-goals>.
- Landorf, C. 2009. A framework for sustainable heritage management: A study of UK industrial heritage sites. *International Journal of Heritage Studies* 15(6), pp. 494–510. doi: 10.1080/13527250903210795.
- Lane, M.B. 2005. Public participation in planning: An intellectual history. *Australian Geographer* 36(3), pp. 283–299. doi: 10.1080/00049180500325694.
- Law No.5226 Making amendments to Law on Conservation of Cultural and Natural Assets and other laws. 2004. *Official Gazette* 27 July(25535)
- Levent, Y.S. 2008. Conservation of Archaeological Sites in Urban Areas in Turkey: Soli-Pompeipolis as a case study. (October)
- Li, J. et al. 2020. Community participation in cultural heritage management: A systematic literature review comparing Chinese and international practices. *Cities* 96. doi: 10.1016/j.cities.2019.102476.
- MacKay, R. 2019. Values-Based Management and the Burra Charter: 1979, 1999, 2013. In: Avrami, E. et al. eds. *Values in Heritage Management: Emerging Approaches and Research Directions*. The Getty Conservation Institute. Available at: <http://www.getty.edu/publications/occasional-papers-3/part-two/8/>.
- MacKay, R. and Johnston, C. 2010. Heritage Management and community connections - On the rocks. *Journal of Architectural Conservation* 16(1), pp. 55–74. doi: 10.1080/13556207.2010.10785062.
- Madran, E. 1996. Cumhuriyetin İlk Otuz Yilinda (1920-1950) Koruma Alaninin Orgutlenmesi-I. *ODTÜ Mimarlık Fakültesi Dergisi* 16(1–2), pp. 59–97.
- Madran, E. and Özgönül, N. 2005. *Son Yasal Düzenlemelerde Kültür ve Tabiat Varlıklarının Korunması ve Yerel Yönetimler El Kitabı*.
- Millar, S. 1989. Heritage management for heritage tourism. *Tourism Management* 10(1), pp. 9–14. doi: 10.1016/0261-5177(89)90030-7.
- Musen, M.A. 2014. Knowledge Representation. In: *Methods in Biomedical Informatics*. Elsevier, pp. 49–79. Available at: <http://dx.doi.org/10.1016/B978-0-12-401678-1.00003-8>.
- Özcanli, M. et al. 2018. Diyarbakir Şehrinin Alansal Gelişimi ve Tarım Arazileri Üzerindeki Etkileri. *The Journal of Academic Social Sciences* (64), pp. 479–506. Available at: <http://www.asosjournal.com/DergiTamDetay.aspx?ID=13294>.
- Pereira Roders, A. and van Oers, R. 2011. Editorial: bridging cultural heritage and sustainable

- development. *Journal of Cultural Heritage Management and Sustainable Development* 1(1), pp. 5–14. Available at: <https://doi.org/10.1108/2044126111129898>.
- Pereira Roders, A. and van Oers, R. 2014. Wedding cultural heritage and sustainable development: Three years after. *Journal of Cultural Heritage Management and Sustainable Development* 4(1), pp. 2–15. doi: 10.1108/JCHMSD-04-2014-0015.
- Petti, L. et al. 2020. Cultural heritage and sustainable development targets: A possible harmonisation? Insights from the European perspective. *Sustainability (Switzerland)* 12(3). doi: 10.3390/su12030926.
- Polanyi, M. 2009. *The Tacit Dimension*. University of Chicago Press.
- Prangnell, J. et al. 2010. Power relations and community involvement in landscape-based cultural heritage management practice: An Australian case study. *International Journal of Heritage Studies* 16(1–2), pp. 140–155. doi: 10.1080/13527250903441838.
- Regulation on the Substance and Procedures of the Establishment and Duties of the Site Management and the Monument Council and Identification of Management Sites. 2005. *Official Gazzette* 27 Novembe(26006). Available at: <https://www.resmigazete.gov.tr/eskiler/2005/11/20051127-2.htm>.
- Rey-Pérez, J. and Pereira Roders, A. 2020. Historic urban landscape: A systematic review, eight years after the adoption of the HUL approach. *Journal of Cultural Heritage Management and Sustainable Development* 10(3), pp. 233–258. doi: 10.1108/JCHMSD-05-2018-0036.
- Ripp, M. and Rodwell, D. 2017. Governance in UNESCO World Heritage Sites: Reframing the Role of Management Plans as a Tool to Improve Community Engagement. In: Makuvaza, S. ed. *Aspects of Management Planning for Cultural World Heritage Sites: Principles, Approaches and Practices*. Springer International Publishing, pp. 1–261. doi: 10.1007/978-3-319-69856-4.
- Ritchie, J. and Spencer, L. 1994. Qualitative data analysis for applied policy research. In: Bryman, A. and Burgess, R. eds. *Analyzing qualitative data*. Routledge, pp. 173–194. doi: 10.1207/s15430421tip3903_5.
- Rodwell, D. 2002. The world heritage convention and the exemplary management of complex heritage Sites. *Journal of Architectural Conservation* 8(3), pp. 40–60. doi: 10.1080/13556207.2002.10785326.
- Sandercock, L. 1998. *Towards cosmopolis : planning for multicultural cities*. John Wiley.
- Sanoff, H. 2000. *Community Participation Methods in Design and Planning*. John Wiley & Sons.
- Shirvani, H. 1985. *The urban design process*. Van Nostrand Reinhold.
- Smith, L. et al. 2003. Community-driven research in cultural heritage management: The Waanyi Women’s history project. *International Journal of Heritage Studies* 9(1), pp. 65–80. doi: 10.1080/1352725022000056631.
- Spencer, L. et al. 2014a. Analysis: Principles and Processes. In: Ritchie, J. et al. eds. *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. Second. SAGE Publications, pp. 269–293.
- Spencer, L. et al. 2014b. Analysis in Practice. In: Ritchie, J. et al. eds. *Qualitative Research Practice: A*

- Guide for Social Science Students and Researchers*. Second. SAGE Publications, pp. 295–345.
- Sütlaş, M. 2011. Kırklar Dağı'nın Değeri ve Kent Hakkı. *BİA Haber Merkezi* 2 July. Available at: <https://bianet.org/biamag/diger/131195-kirklar-dagi-nin-degeri-ve-kent-hakki>.
- Thakker, D. et al. 2009. GATE JAPE Grammar Tutorial. 1, pp. 1–38. Available at: [http://gate.ac.uk/sale/thakker-jape-tutorial/GATE JAPE manual.pdf](http://gate.ac.uk/sale/thakker-jape-tutorial/GATE%20JAPE%20manual.pdf).
- Thomas, J.C. 1993. Public Involvement and Governmental Effectiveness: A Decision-Making Model for Public Managers. *Administration & Society* 24(4), pp. 444–469. Available at: <https://doi.org/10.1177/009539979302400402>.
- Tigris University, F. of A. 2018. Future Projection of the Faculty. Available at: <http://yeni.dicle.edu.tr/en/academic/faculties/faculty-of-agriculture/z-f's-history> [Accessed: 15 January 2020].
- Timney, M.M. 1998. Overcoming Administrative Barriers to Citizen Participation: Citizens as Partners, Not Adversaries. In: King, C. S. and Stivers, C. eds. *Government Is Us: Strategies for an Anti-Government Era*. SAGE, pp. 88–101.
- Turkey (State Party) 2014. *Diyarbakır Fortress and Hevsel Gardens Cultural Landscape: Nomination Dossier for Inscription on the World Heritage List*. Available at: <http://whc.unesco.org/fr/list/1488/documents>.
- Uluslan, E. 2008. *ALAN YÖNETİMİ SÜREÇLERİ: JAPONYA VE TÜRKİYE*. Ankara.
- Uluslan, E. 2016. Turkish Experience of Management Planning in Cultural Heritage Areas. 7(19), pp. 372–401.
- Uluslan, E. and Yıldırım, A.E. 2016. Temsili, Dengeli ve Güvenilir Bir Liste İçin: Türkiye'nin Dünya Mirası Adaylıklarının Gözden Geçirilmesi. *IdealKent* 7(19), pp. 444–473.
- UNESCO 1972. Convention for the Protection of the World Cultural and Natural Heritage. (November), pp. 135–154.
- UNESCO 1976. Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas (Nairobi Recommendation).
- UNESCO 1977. Operational Guidelines for the World Heritage Committee.
- UNESCO 1991. The Quebec City Declaration. In: *The First International Symposium of World Heritage Cities*. Quebec, Canada
- UNESCO 1994. Operational Guidelines for the Implementation of the World Heritage Convention.
- UNESCO 1997. Operational Guidelines for the Implementation of the World Heritage Convention. (February)
- UNESCO 2002. Budapest Declaration on World Heritage.
- UNESCO 2005a. Operational Guidelines for the Implementation of the World Heritage Convention. *Operational Guidelines for the Implementation of the World Heritage Convention*
- UNESCO 2005b. Vienna Memorandum on World Heritage and Contemporary Architecture. (May), p. 7. Available at: <http://whc.unesco.org/archive/2005/whc05-15ga-inf7e.pdf>.
- UNESCO 2011. Recommendation on The Historic Urban Landscape. (November)

- UNESCO 2013a. *Managing Cultural World Heritage*. Paris. Available at:
<https://books.google.com.hk/books?id=zWBoCwAAQBAJ>.
- UNESCO 2013b. *Managing Cultural World Heritage (World Heritage Resource Manual)*. Paris.
- UNESCO 2019. Operational Guidelines for the Implementation of the World Heritage Convention Ed. 2019. (July), p. 167. Available at: <https://whc.unesco.org/document/178167>.
- UNESCO 2021. World Heritage List. Available at: <https://whc.unesco.org/en/list/> [Accessed: 5 January 2021].
- UNESCO World Heritage Centre 2019. *Periodic Reporting A Handbook For Site Managers*.
- UNESCO World Heritage Centre [no date]. Properties inscribed on the World Heritage List in Turkey. Available at: <https://whc.unesco.org/en/statesparties/tr> [Accessed: 3 November 2020].
- United Nations General Assembly 2015. Transforming our world: the 2030 Agenda for Sustainable Development.
- US ICOMOS 1987. Charter for The Conservation of Historic Towns and Urban Areas.
- US ICOMOS 1992. A Preservation Charter for The Historic Towns and Areas of The United States of America.
- Vigoda, E. 2002. From responsiveness to collaboration: Governance, citizens, and the next generation of public administration. *Public Administration Review* 62(5), pp. 527–540. doi: 10.1111/1540-6210.00235.
- Watson, S. and Waterton, E. 2010. Editorial: Heritage and community engagement. *International Journal of Heritage Studies* 16(1–2), pp. 1–3. doi: 10.1080/13527250903441655.
- Weiler, B. and Witt, S.F. 1997. Tourism and heritage management: balancing conservation and development. *Tourism Management* 18(5), pp. 331–332. doi: 10.1016/s0261-5177(97)83468-1.
- Witten, I.H. and Frank, E. 2005. *Data Mining: Practical Machine Learning Tools and Techniques*. 2nd ed. San Francisco: Morgan Kaufmann.

Appendices

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

Diyarbakir Fortress and Surici Area				
Issue Code 01	Accessibility	W	Issue 1.1: The occupation of streets by commercial activities makes women feel unsafe and uncomfortable to walk in them.	Action 5.6.1.6: Create a safe and accessible environment for the elderly, people with disabilities and children.
		D	Issue 1.2: Bastions and city walls should be accessible to disabled people. At least, the most important ones.	
		D	Issue 1.3: There is a unique social structure in the heritage area in terms of history and intangible cultural heritage and this should be protected. Heritage promotion boards should be designed by taking people with disabilities into account. Signalling and LED lighting should be provided in the whole heritage site together with guides who can speak sign language.	
		SM HM	Issue 1.4: The barriers for vehicles on the pedestrianized streets are not respected. They are broken to provide vehicle access to those streets.	Action 3.4.3.2: Regulate access hours of vehicles to and from the management plan area and enforce traffic regulations (e.g., one-way traffic) which would decrease the traffic load in the area. Action 5.6.1.5: Expand centralised parking opportunities near the management plan area.
Issue Code 03	Child Education	W	Issue 3.1: Seasonal employment for agriculture causes problems in children's educational life. When the harvest season starts, families must leave the city so children cannot continue going schools.	Action 3.3.1.4: Include studies on improving the level of education constantly in the agenda and support awareness raising activities to extend the duration of education. Action 3.3.1.5: Conduct regular follow-up studies to send children to schools, to increase attendance, and to extend the duration and level of education. Action 3.3.1.6: Support activities to increase urban, social, and cultural development of children living in the management plan area, support awareness raising activities on the importance of education.
		C	Issue 3.2: Mothers believe that pre-school education is important for their children because of the language barrier. However, pre-school education facilities are not enough or common.	No actions
		W C	Issue 3.3: Official language becomes a problem for children because they are growing up with a different native language.	No actions
Issue Code 04	Child labour and abuse	Issue Code	Issue Code	Action 3.3.1.2: Conduct activities to increase influence and control of families on children to deflect child labour and child abuse.

		Issue Code	Issue Code	Action 3.3.1.3: Provide educational activities for parents on risks and dangers children face while working or spending time away on the streets, with the corresponding potential impacts of these activities on their growth.
		W C	Issue 4.1: Even though child abuse and incestuous relationships are detected, families lack psychological counselling and rehabilitation services to prevent those occurrences.	Action 3.3.1.1: Constitute neighbourhood teams formed by specialists who can trace and solve psychological, family, and social problems that children face.
		C	Issue 4.2: It is necessary to provide education for families on how to raise children, how to improve communication with children and how to prevent the use of drugs by children.	
		C SM	Issue 4.3: Families allow their children to work to increase the household income.	Action 3.1.1.3: Increase qualified workforce in the management plan area to discourage illegal work.
		W	Issue 4.4: To benefit from the income earned by children working in factories and on the streets, women do not want to move out from Surici.	
Issue Code 06	Employment in situ	Issue Code	Issue Code	Action 2.2.3.1: Develop an implementation plan for the workforce based on an analysis of work experience and trends in different tourism themes.
		Issue Code	Issue Code	Action 2.2.3.2: Develop local cooperation for day trip destinations or hospitality.
		Issue Code	Issue Code	Action 2.3.1.3: Organise handcraft master programs for young generations.
		Issue Code	Issue Code	Action 2.3.2.1: Constitute sale cooperatives for arts and crafts.
		Issue Code	Issue Code	Action 2.3.2.4: Create areas for arts and crafts sales in day trip destinations and hospitality.
		Issue Code	Issue Code	Action 3.1.1.1: Apply policies to transform the economically active population, particularly impoverished population in the area, into active workforce in the tourism, service and agriculture sectors through professional skills and certification programs.
		Issue Code	Issue Code	Action 3.1.1.2: Conduct surveys to determine workforce demand for businesses in the arts and crafts, tourism and service sectors (tour guides, tour operators, hotel services, different types of arts and crafts such as copper mastery, carpentry, crafts, etc.) in the management plan area.
		Issue Code	Issue Code	Action 5.3.3.1: Conduct planning and design studies to develop a spatial implementation guideline for arts and crafts sales areas at the main visitor routes and implement it.
		Issue Code	Issue Code	Action 5.3.3.2: Conduct spatial arrangements in bazaars, streets, and khans where traditional craftsmanship activities such as throne building, ironworking, copper working, silk weaving etc. are carried out. Create areas where craftsmen can exhibit their production processes, within the cultural heritage structures in Surici traditional centre.
				SM HM
				Action 3.2.1.5: Create areas where women can produce and sell traditional handmade products to promote tourism and enable their participation in economic life.

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

		D HM	Issue 6.2: Bastions should be used for whatever purpose which contributes to increasing local people's employment.	Action 5.1.1.4: Evaluate bastions having interior space adequate for public uses for local people, and social and cultural uses with intermittent use for visitors based on the Utilization plan for Bastions and their surroundings prepared by the DMM Site Management Unit, within the Integrated City Walls Restoration Program. Ensure these implementations are done following decisions of Regional Council of Conservation of Cultural Assets. Monitor the impact of the uses given to these bastions on their cultural value.
Issue Code 08	Food market	W	Issue 8.1: Prices in the food markets are reasonable because their supply of vegetables and fruits come from Hevsel Gardens.	Action 2.1.2.2: Monitor food prices in an effective and dynamic manner and develop a corporate organization that can carry out intervening purchases and sales when necessary.
		W	Issue 8.2: Local people request an increase in the number of food stalls and markets clusters.	Action 2.1.2.1: Conduct surveys the Surici market structure to conduct neighbourhood-based food demand forecasts and create new market areas if needed.
Issue Code 09	Public Facilities	W C	Issue 9.1: Providing more recreation and open spaces and upgrading the physical quality of streets and houses would improve the social and economic conditions in Surici.	No actions
		W	Issue 9.2: Playgrounds for children and open sport areas for women are needed.	No actions
		Y	Issue 9.3: Young people ask for a youth centre in Surici and more facilities in parks.	No actions
		HM	Issue 9.4: Current social and technical infrastructure is not sufficient and should be improved especially for low-income people.	No actions
Issue Code 10	Safety problems	W Y SM HM	Issue 10.1: Drug dealing is a problem in the area both for children and tourists. Drug dealers occupy the abandoned buildings. Local people claim authorities and law enforcement are not sufficient.	Action 3.6.1.2: Place streetlights on main routes and public spaces used by visitors and residents as well as on transportation routes used to access these areas, take inspection and security precautions against possible crimes.
		C	Issue 10.2: Children are attracted to drug dealers and easily dragged into illegal activities because of the falsified perception of drug dealers.	No actions
		W C	Issue 10.3: Women want to move out of the area to protect their children from being involved in illegal activities or drug addiction.	No actions
		D	Issue 10.4: Mentally disabled people are being benefited by drug dealing activities, this situation should be prevented and controlled by authorities.	No actions
Issue Code 11	Social Housing	W	Issue 11.1: People do not move out of the area, despite having been provided social housing, as they rent it to have an extra income and do not want to detach themselves from the solidarity network that they have in Surici.	Action 5.7.2.6: Encourage the establishment of local cooperative housing societies and local solidarity associations at the neighbourhood, district, and city scale.
		Y	Issue 11.2: Young people request student social housing or student dormitories in Surici because of its closeness to Dicle University.	No actions
		D	Issue 11.3: New social housing developments deteriorate the historical structure of Surici, especially when built in evacuated areas of Surici.	Action 5.1.5.6: Prioritise residential use and protect traditional street patterns while attaining commercial, service, cultural and touristic uses in the Surici area.
Issue Code 12	Social Services	W	Issue 12.1: Social services are not provided adequately and properly by the government to the local people.	No actions
		C	Issue 12.2: NGOs working in the area are not enough and not having proper organizational structure.	No actions

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

		Y	Issue 12.3: Young people with criminal records are not allowed to access social services. There is a lack of social services for rehabilitation of criminal youth.	No actions
		D	Issue 12.4: Disabled people are not supported by social services, despite it being a source of government benefit. There is a request for establishing support centres for disabled people.	No actions
		D	Issue 12.5: Families of disabled people need education on the importance of rehabilitation and education for their disabled members.	No actions
Issue Code 13	Transformation in situ	Issue Code	Issue Code	Action 5.7.2.2: Conduct and complete master planning studies with a holistic approach by evaluating possible transformation areas within the city walls together with existing transformation areas outside the city walls.
		Issue Code	Issue Code	Action 5.7.2.3: Revise the transportation system changed by the Surici Master Plan, evaluate the provision of housing stock, examine feedback from previous transformation projects, and analyse similar examples from abroad.
		SM	Issue 13.1: Rehabilitation projects of streets should be done through a more participative approach.	Action 5.7.1.1: Prioritise implementations of building reinforcement in the Surici area in the context of risk reduction works.
		W Y SM	Issue 13.2: Local people do not want to be relocated during the transformation process due to high transportation costs to food markets and cemetery visits.	Action 5.7.1.2: Prioritise in situ transformation projects within the Surici area and prioritise existing rightsholders to select the location of their new houses.
		HM	Issue 13.3: Local people cannot afford relocation even if the living conditions in Surici push for gentrification.	Action 5.7.1.3: Apply policies to avoid the suffering of rightsholders which could result from the transformation processes of risky buildings in the area, evaluate solutions (e.g. reinforcement first) and prioritise implementations, with consent from rightsholders, apply policies which respect property rights.
		W C Y SM HM	Issue 13.4: Announcing Surici as an unsafe and dangerous area lead people to disengage from it. This is perceived as defamation to promote evacuation of communities living in it.	Action 5.7.2.1: Provide solutions which protect the rights of rightsholders and apply no-obligation policies for them in renewal, transformation, and rehabilitation projects of irregular residential areas, avoid gentrification by taking a lead role in consultation processes.
		W Y SM HM	Issue 13.5: Due to previous evictions in other neighbourhoods under the frame of transformation, local people have a perception of exclusion and fear the future.	Action 5.7.2.4: Evaluate transformation, renewal, and rehabilitation projects together with surrounding public and/or private properties and develop proper financial models without reimbursement, to provide housing for current rightsholders. Action 5.7.2.5: Develop a financial model for distribution of rights in renewal, transformation, and rehabilitation projects, enable rightsholders to benefit from becoming partners.
Issue Code 14	Women Solidarity	W SM HM	Issue 14.1: The only social activity for women is neighbourly relations. They cope with difficulties through this solidarity network and care about the social relations they developed in the neighbourhood.	Action 3.2.1.1: Support projects that raise awareness on the participation of women in social and public life with regards to economic, social, and cultural importance.
				Action 3.2.1.2: Organise awareness raising campaigns and projects on women residents' participation in social and economic life for the benefit of development, society, city, and future generations.
				Action 3.2.1.3: Organise activities in the outer neighbourhoods of the management plan area to raise awareness on the importance and need for women to participate in social and economic life.
Hevsel Gardens and Tigris River				

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

Issue Code 15	Coordination	HG	Issue 15.1: Due to the large number of authorised institutions in the area, different projects planned by different authorities without coordination are damaging the natural structure of Hevsel Gardens and Tigris Valley.	Action 5.2.1.1: Prepare and approve the Tigris River and Basin Preservation Plan, the top-scale comprehensive plan for the Tigris Valley.
		HG	Issue 15.2: Coordination between authorities should be provided to solve pollution and production problems.	Action 5.2.2.3: Monitor activities done or planned for the management plan area by different institutions, prevent them from damaging the heritage site, buffer zones and the Tigris River flora and fauna.
Issue Code 16	Ecological Agriculture	Y	Issue 16.1: Ecological agriculture activities can support young population to get involved in agricultural activities. Practice-based education on ecological agriculture activities and cooperatives may help.	Action 5.3.2.1: Prepare and implement the “Tigris Valley Eco-Tourism Area Spatial Plan” in which day trip destinations, camp areas, and summer schools with ecological balance and biological diversity themes are specified.
		HG	Issue 16.2: Studies should be done by universities to re-produce endangered products such as sand peach and sand watermelon.	Action 2.1.1.7: Conduct R&D work towards breeding of authentic products like sand peach, sand watermelon which face extinction. Action 3.4.2.7: Preserve seeds of all cultivated products in Hevsel Gardens.
		HG	Issue 16.3: Ecological agriculture activities can be promoted by ecotourism and other activities such as allotment gardens.	Action 2.2.1.2: Assign Ecotourism Thematic Area(s) and develop the Ecotourism Implementation Handbook. Action 2.2.1.3: Assign Agritourism Thematic Area(s) and develop the Agritourism Implementation Handbook. Action 4.1.1.1: Examine national and international best practices in Ecotourism, promote the ecotourism potential of the management plan area, develop projects to define principles and standards related to bearing capacity. Action 4.1.1.2: Examine national and international best practices in Agritourism, promote the Agritourism potential of the management plan area, structure competitive power and develop projects that define principles and standards related to bearing capacity. Action 5.1.4.3: Support ecotourism activities that bring together the natural values of the area. Action 5.2.3.1: Ensure all types of activities are conducted based on an ecological city guide prepared for the management plan area. Action 5.3.2.3: Prepare and implement the Hevsel Gardens Agritourism Spatial Plan by restructuring ruined mills and similar cultural heritage elements. Action 5.5.1.1: Create the elements of the ecologic balance and biodiversity presentation theme for the Tigris Valley Presentation Node, delineate borders and routes, prepare, and implement urban design and architectural projects. Action 5.5.1.7: Create the elements of the agricultural activities, ecologic production practices and intangible cultural heritage presentation theme for the Hevsel Gardens Presentation Node, delineate borders and routes, prepare, and implement urban design and architectural projects.
Issue Code 17	Irrigation Systems	HG	Issue 17.1: Old irrigation pipes cause problems in production, but producers do not use motorized pumps because they increase production costs. They use the sewage water which pollutes the Tigris River, causes health problems, and decreases the quality of the products.	Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.
		HG	Issue 17.2: Irrigation needs to be done with clean water.	Action 2.1.3.2: Spread the use of drip and sprinkler irrigation systems. Action 5.3.1.1: Establish the “Hevsel Gardens Ecological Farm” where fine agricultural practices are carried out by the public and irrigation systems are installed by taking into consideration heritage values.
		HG	Issue 17.3: There is a need for producer training on irrigation.	No actions

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

Issue Code 18	Migratory birds	HG	Issue 17.4: Irrigation Cooperatives should be supported.	No actions
		Issue Code	Issue Code	Action 5.1.4.12: Detect properties, numbers, feeding, hosting, and breeding grounds of water plants and aquatic systems; mammals; local and migratory birds; reptiles and amphibian creatures; monitor wildlife, cast out threatening elements within the management plan area.
		HG	Issue 18.1: There is no prohibition on hunting, and this is a major problem for migratory birds.	Action 5.1.4.11: Prevent all sorts of illegal hunting activities within the area.
Issue Code 19	Public Facilities	HG	Issue 18.2: Creating a birdwatching route for migratory birds might support the tourism sector in Hevsel Gardens.	No actions
		C	Issue 19.1: A camp area with sports facilities and a swimming pool is requested.	Action 4.1.1.3: Examine national and international best practices for the 'Camping Tourism' theme, exploit the camping tourism potential of the management plan area, structure competitive power, and develop projects that define principles and standards to specify bearing capacity.
		ICH	Issue 19.2: More public facilities such as sports centres and cultural centres would increase the use of the Tigris Valley.	No actions
		HG	Issue 19.3: Hevsel gardens and the Tigris River shoreline should be designed as a public space for all people in the city.	No actions
		W SM	Issue 19.4: Hevsel Gardens are the only recreation area for local people to get fresh air and socialise.	No actions
		D	Issue 19.5: Areas for outdoor sports and sports facilities are requested by disabled group.	No actions
Issue Code 21	Soil Pollution	HG	Issue 21.1: The water pollution in Tigris River and use of sewage water for irrigation lead to soil pollution in Hevsel Gardens.	Action 3.4.2.2: Conduct regular measurements of heavy metals in Hevsel Gardens products and soil to monitor their levels as well as to detect any chemicals threaten human health.
				Action 3.4.2.3: Evaluate results of the analyses from water, soil and products and prepare risk assessment reports for water-soil-food, take necessary precautions accordingly.
				Action 5.1.4.7: Prevent to burn wild weeds on the agricultural lands within the management plan area.
		HG	Issue 21.2: Soil analysis should also be useful to guide production.	Action 2.1.3.1: Conduct soil analysis to determine the optimal input amount and type, inform the producers about the results. Action 3.4.2.6: Conduct educational activities for farmers and producers about fine agricultural practices against soil exhaustion due to excessive cultivation without fallow in Hevsel Gardens.
Issue Code 22	Support for Producers	Issue Code	Issue Code	Action 2.1.1.1: Create database for the Hevsel Gardens production inputs and update it at the scale of Hevsel Gardens agricultural enterprises and farms.
		Issue Code	Issue Code	Action 2.1.3.3: Establish public agricultural practice demonstration fields for producers to spread environmentally friendly agricultural practices.
		Issue Code	Issue Code	Action 2.1.3.4: Introduce agricultural production processes in public agricultural practice demonstration fields in terms of stages and content –e.g., input amount, production cost, labour cost, production stages, sales unit price and amount, sales channels etc.– via written and visual publicity means.

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

		HG	Issue 22.1: There is a need to support producers by facilitating a Hevsel Re-production Centre.	Action 5.3.1.2: Establish the Hevsel Reproduction Centre with a cold storage area, input warehouse and sales units for the reconstruction of the administration of the agricultural organization structure and the competitive power of producers.
		HG	Issue 22.2: Financial sources should be better introduced to producers.	Action 2.1.1.3: Develop legal solutions to overcome legal barriers that prevent producers in Hevsel Gardens from being included in the subsidy network, carry out necessary legal initiatives. Action 2.1.1.6: Organise briefings about new agricultural loans issued by financial institutions, carry out legal efforts to facilitate producers and/or corporate agricultural structures to benefit from them.
		HG	Issue 22.3: Producers should be supported and organised through cooperatives.	Action 2.1.1.5: Constitute the corporate structure (such as cooperatives, associations, unions etc.) to organise the community of Hevsel producers and farmers.
		HG	Issue 22.4: Improving marketing abilities of producers is important but producers are unable to do marketing due to urgent need for income.	Action 2.1.1.2: Constitute an intra-city food supply chain to conduct research and development studies to increase marketing opportunities for Hevsel products.
Issue Code 23	Tigris Valley Project	Y	Issue 23.1: Tigris Valley Project damages the agricultural lands and production, consequently, deprives the income of producer families.	Action 5.1.4.4: Conduct regular inspections for the activities undertaken in day trip destinations in the Nature Park, conduct periodical impact analyses to stop the ones that are scientifically proven to have negative effects on the natural life.
		ICH HG	Issue 23.2: Tigris Valley Project threatens agricultural production in Hevsel Gardens particularly because of the construction of water dams.	Action 5.1.4.1: Ensure continuity of ecological balance and biodiversity via preservation. Action 5.1.4.2: Preserve flora and fauna in the management plan area.
		SM	Issue 23.3: Tigris Valley Project has negative impacts on the area and should be revised.	Action 5.1.4.8: Prevent damaging, burning, and chopping of vegetation, especially in shrubbery and reed fields within the Nature Park. Action 5.1.4.14: Mandate fine agricultural practices in the fields of the Nature Park within the management plan area.
Issue Code 24	Unregistered Activities	ICH SM	Issue 24.1: Unregistered commercial activities along Tigris River prevent its public use and exclude local people from the area.	Action 3.5.1.1: Identify illegal activities in the cultural heritage structures which are in the heritage site, stop them and investigate their damage in cultural heritage assets, provide repair and maintenance when necessary.
		Y	Issue 24.2: Commercial activities along Tigris River jeopardise the current recreation and social activities of young people.	Action 3.5.1.2: Conduct precautionary inspections in the cultural heritage structures, in the heritage site, detect and stop illegal activities in them. Action 5.1.4.5: Identify social, spatial, economic, and environmental factors that may create pressure on the natural and cultural heritage, conduct impact analyses, record, monitor, supervise, and stop any activities with a negative outcome.
		HG HM	Issue 24.3: Unregistered activities close to the Ten-Eyed Bridge damage the unity of the Hevsel Gardens and the Tigris Valley.	Action 5.1.4.13: Prohibit all sorts of shoreline configurations which disrupt the natural structure and natural landscape such as excavation disposals, sand intakes or fillings and other commercial activities which deform the existing topographic structure of the area. Action 5.2.2.6: Assess the east side of Tigris River as natural park, decrease the number of users, and prevent harmful uses to natural life.
Issue Code 25	Water Pollution	HG SM	Issue 25.1: Domestic waste, industrial waste and sewage waste are the main reasons for water pollution in the Tigris River. Another source of water pollution is sand quarries.	Action 3.4.1.1: Organise educative and informative activities for institutions, companies, workplaces, and tourism businesses within the management plan area regarding the decomposition of solid waste. Action 3.4.1.2: Take precautions to prevent garbage disposals in uninhabited buildings and green areas within the heritage site.

				<p>Action 3.4.1.3: Acquire small size garbage collection vehicles to provide ease of access to the narrow streets of the heritage site.</p> <p>Action 3.4.2.1: Conduct Microbiologic Quality Standard readings for all water sources used for irrigation in Hevsel Gardens as well as for wastewater.</p> <p>Action 3.4.2.4: Prevent the use of irrigation sources which threaten the environment and human health due to high levels of heavy metals, support the use of clean water.</p> <p>Action 3.4.2.8: Monitor all agricultural activities, which pollutes Tigris Valley and Basin, enforce sanctions for businesses carrying out activities polluting the area.</p> <p>Action 3.4.4.1: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their guardians in 2 of the primary and 1 of the secondary schools in Surici area every year.</p> <p>Action 3.4.4.2: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their guardians in 2 of the primary and 1 of the secondary schools outside the Surici area, within the management plan boundaries, every year.</p> <p>Action 5.1.4.6: Ensure the effective inspection of solid and liquid human wastes and prevent environmental (air, soil, water) pollution in the management plan area.</p> <p>Action 5.1.4.16: Connect sewers of new buildings to the public sewer whenever possible, mandate the use of sealed cesspools otherwise.</p> <p>Action 5.1.4.17: Prohibit all sorts of activities that will disrupt the quality of water, decrease the quantity of water, change the riverbed, and/or pollute the water in the sections of the Tigris River Basin within management plan area.</p> <p>Action 5.2.2.1: Prohibit activities such as prospecting and/or operating sand quarries and cancel the permits for the operating ones and prepare and implement recovery projects for the affected areas via scientific techniques.</p> <p>Action 5.2.3.2: Determine the line of businesses that can take place within the management plan area, stop sand and stone quarries, polluting industrial activities etc. that are currently operating and damaging the environment, conduct repairation works for the damage caused by them.</p> <p>Action 5.2.3.3: Identify and prevent all kinds of negative effects of the built environment and its pollutants on the Tigris River and basin such as debris and excavation dumping sites, garbage disposal fields, sewers etc, continue repairation works for the damage caused by them.</p>
Heritage Site				
Issue Code 26	Accessibility	HG SM	Issue 26.1: The site needs transportation planning due to problems related to density in traffic.	<p>Action 3.4.3.1: Organise activities in the site management area to encourage the use of alternative means of transport like bicycles, reduce the density of motor vehicles, carry out awareness raising activities in state institutions, schools, and community centres to increase responsiveness.</p> <p>Action 5.6.1.1: Prepare Site Management Area Transportation Master Plan.</p> <p>Action 5.6.1.2: Locate bus stops, taxi stops and taxi parking lots in the management plan area, remove bus stops and bus parking lots to out of Surici area.</p>

Appendix I: Association matrix for Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

				<p>Action 5.6.1.3: Conduct spatial arrangements to ensure that the primary mean of transportation in Surici area and in Hevsel Gardens is walking, facilitate tour busses to provide motorized access to the heritage site.</p> <p>Action 5.6.1.4: Prepare transportation and circulation plans for pedestrian and cyclists in the management plan area to encourage them.</p> <p>Action 5.6.1.7: Design visitor routes in Surici area and Hevsel Gardens, provide parking lots for tour busses.</p> <p>Action 5.6.1.8: Evaluate transportation investments that may affect the management plan area.</p>
		D	Issue 26.2: Accessibility for disabled people to participate effectively in social life is a need in the whole site, especially parks and open green spaces.	Action 3.6.1.3: Conduct spatial arrangements in the area to make public spaces disabled-friendly and easy to access for women. Organise awareness raising activities ensuring the right and equality of access to public spaces for disadvantaged groups, people with disabilities and women.
Issue Code 30	Holistic Planning	ICH	Issue 30.1: Intangible cultural heritage should be assessed by a holistic approach to be able to reach different elements of it such as artisan works, local cuisine, tales, epics, plays, endemic species and spatial development based on them.	No actions
		HG	Issue 30.2: Hevsel Gardens should be assessed by its natural and social structure by keeping its agricultural heritage united.	<p>Action 2.1.1.4: Update the main visitor route which is limited to Surici area to access to the Hevsel Gardens to increase the recognition of it. Subsidise agritourism applications that do not threaten agricultural production process as a way of revenue diversification.</p> <p>Action 5.2.1.2: Prepare Cultural Landscape Impact Assessment reports for the heritage site for macro projects such as the “Tigris Valley Hydroelectric Power Station Project”, “Ministry of Environment and Urbanization Housing Stock Area Decisions”, “Kirkklar Mountain Project”, “Tigris Valley Recreation Area Project”, “Surici Area Disaster Master Plan”, etc. and implement revisions of these projects.</p>
		SM HM	Issue 30.3: Due to the existence of many different projects on the heritage site, a holistic approach is needed to protect the multi-identity of the site.	<p>Action 1.1.1.1: Identify principles and standards for conservation and restoration practices.</p> <p>Action 1.1.1.2: Conduct impact assessment of previous conservation plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.</p> <p>Action 5.2.1.3: Conduct impact assessment of previous master plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.</p>

Appendix II: Abbreviations

UNESCO – United Nations Educational, Scientific, and Cultural Organization

WHC – World Heritage Committee

WHS – World Heritage Site

ICOMOS – International Council on Monuments and Sites

ICCROM – International Centre for the Study of the Preservation and Restoration of Cultural Property

IUCN – International Union for Conservation of Nature

For Diyarbakir Fortress and Hevsel Gardens Cultural Landscape WHS

AÇEV – Mother Child Education Foundation

EPI-DEM – Women Education and Counselling Centre

KADEM – Woman and Democracy Association

CATOM – Multi-purpose Community Centre

GABB – Union of South-eastern Anatolia Municipalities

GIYAV – Migration and Humanitarian Assistance Foundation

MEGAM-DER – Mesopotamia Youth Research Centre Association

DMM – Diyarbakir Metropolitan Municipality

DPD – Diyarbakir Provincial Directorate

TMMOB – Union of Chambers of Turkish Engineers and Architects

TMMOB Diyarbakir IKK – TMMOB Diyarbakir Provincial Coordination Committee

ISKUR – Turkish Employment Agency

KOSGEB – Small and Medium sized Enterprises Development Organization

DSI – General Directorate of State Hydraulic Works

KUDEB – Conservation, Implementation and Inspection Office

For Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS

BBB – Bursa Metropolitan Municipality

BAB – Bursa Site Management Unit

Appendix III: Qualitative Assessment Report

A. Diyarbakir Fortress and Surici Area

Issues for the Diyarbakir Fortress and Surici Area were raised by all community stakeholders from focus groups except for the Hevsel Gardens one. For this area, there were three Issue Families identified which are Surici urban area, Social and economic problems, and Heritage management.

A.1. Issue Family 1: Surici Urban Area

The first family, Surici Urban Area included the issues ‘Accessibility’, ‘Food market’, ‘Public Facilities’, ‘Social Housing’, and ‘Transformation in situ’. These issues were raised by the Women, Children, Youth, and people with Disabilities focus groups. Interestingly, the Women focus group provided assertions for every issue in this family. The Youth focus group focused on issues related to public facilities, social housing, and transformation in situ while the People with Disabilities focus group was more interested in issues related to accessibility and social housing.

Issue Code 1. Accessibility

Table 51 illustrates that issue assertions were raised by four different focus groups for Issue Code 1. Accessibility. Two of them contain community representatives from the Women and the people with Disabilities focus groups whereas the other two contain representatives from the Heritage Management and the Spatial Management focus groups.

Table 51: Issue Code 1 – Accessibility and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
W	Issue 1.1: The occupation of streets by commercial activities makes women feel unsafe and uncomfortable to walk in them.	Action 5.6.1.6: Create a safe and accessible environment for the elderly, people with disabilities and children.
D	Issue 1.2: Bastions and city walls should be accessible to disabled people. At least, the most important ones.	
D	Issue 1.3: There is a unique social structure in the heritage area in terms of history and intangible cultural heritage and this should be protected. Heritage promotion boards should be designed by taking people with disabilities into account. Signalling and LED lighting should be provided in the whole heritage site together with guides who can speak sign language.	
SM HM	Issue 1.4: The barriers for vehicles on the pedestrianized streets are not respected. They are broken to provide vehicle access to those streets.	Action 3.4.3.2: Regulate access hours of vehicles to and from the management plan area and enforce traffic regulations (e.g., one-way traffic) which would decrease the traffic load in the area.
		Action 5.6.1.5: Expand centralised parking opportunities near the management plan area.

Action 5.6.1.6 is associated with Issue 1.1, Issue 1.2, and Issue 1.3, raised by community focus groups, while Action 3.4.3.2 and Action 5.6.1.5 correspond Issue 1.4, raised by non-community focus groups.

Table 52: Verifying connections for Action 5.6.1.6, Action 3.4.3.2, and Action 5.6.1.5

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.6.1.6: Create a safe and accessible environment for the elderly, people with disabilities and children.	W Local Associations; DMM Departments; GABB; CATOM D Local Associations; DMM Departments	Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"
Action 3.4.3.2: Regulate access hours of vehicles to and from the management plan area and enforce traffic regulations (e.g., one-way traffic) which would decrease the traffic load in the area.	SM HM	1.500.000 TRY From the planning to the implementation of the project, it includes the arrangement of roads, warning-indicator plates, bicycle-pedestrian routes, the arrangement of bus parking lots and traffic limitation works.	Visitors; Residents; Users of the management plan area; Businesses; Institutions	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"	"DMM Construction and Urbanization Directorate"; "DMM Transportation Directorate"
Action 5.6.1.5: Expand centralised parking opportunities near the management plan area.		Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"

Action 5.6.1.6 is defined as an activity, and therefore beneficiaries are not defined for the action. Consultants and implementers are municipality departments which are not participated in the Women and the people with Disabilities focus groups. There is no connection between community stakeholders and implementers or consultants of the action.

Action 3.4.3.2 is a part of project with a total budget of 1.500.000 TRY, but the amount is not divided per action in the budget explanation. Action 5.6.1.5 is defined as an activity and no budget, and no beneficiaries are assigned to it. However, these actions are associated with the Issue 1.4 which is raised by non-community focus groups; the Spatial Management, and the Heritage Management, even though beneficiaries of the Action 3.4.3.2 include community stakeholders.

Table 53: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 1.1: The occupation of streets by commercial activities makes women feel unsafe and uncomfortable to walk in them.	Action 5.6.1.6: Create a safe and accessible environment for the elderly, people with disabilities and children.	Number of interventions undertaken for the sake of elderly, disabled and children on bus roads, bus stops, ramps, traffic lights and pedestrian paths
Issue 1.2: Bastions and city walls should be accessible to disabled people. At least, the most important ones.	Action 3.4.3.2: Regulate access hours of vehicles to and from the management plan area and enforce traffic regulations (e.g., one-way traffic) which would decrease the traffic load in the area.	
Issue 1.3: There is a unique social structure in the heritage area in terms of history and intangible cultural heritage and this should be protected. Heritage promotion boards should be designed by taking people with disabilities into account. Signalling and LED lighting should be provided in the whole heritage site together with guides who can speak sign language.		
Issue 1.4: The barriers for vehicles on the pedestrianized streets are not respected. They are broken to provide vehicle access to those streets.	Action 5.6.1.6: Create a safe and accessible environment for the elderly, people with disabilities and children.	Number of pedestrianised streets in the management plan area; Number of the streets with decreased traffic load
	Action 3.4.3.2: Regulate access hours of vehicles to and from the management plan area and enforce traffic regulations (e.g., one-way traffic) which would decrease the traffic load in the area.	Number and size of the carpark near the management plan area; Number and size of the parking lots for tour buses near the management plan area

Issue assertions raised by the community refer to a conflict in the use of the urban space and lack of accessibility to heritage monuments. Issue 1.1 states a problem of comfort while walking in the streets and Issue 1.2 is a request to provide accessibility to the city walls and bastions, ultimately to provide accessibility to heritage structures. Issue 1.3 is about accessibility to the information about heritage structures by people with disabilities. All issues are space related problems, even though they do not refer to a specific place in the area.

Action 5.6.1.6 refers to safety and accessibility in general for children, the elderly, and people with disabilities without any specifications to do what and where. Outputs are unspecific in relation to the types of solutions proposed except for bus roads, bus stops, ramps, traffic lights and pedestrian paths. They are also purely quantitative, i.e., not referring to any specific areas to be transformed, not even heritage monuments despite them being clearly listed in issue assertions coming from focus group meetings, especially the city walls and bastions are not mentioned as targeted areas for interventions. Considering these

are the longest city walls in the world, it is expected that areas with priorities are listed for intervention. Number of interventions undertaken may provide an information on whether any work is done but does not reveal ultimate targets and/or the desired state to be achieved.

Issues raised in focus group meetings by the community stakeholders are partially translated into management plan actions. For example, no action refers to removing commercial activities form the streets. However, the issued raised in ‘Spatial Management’ and ‘Heritage Management’ focus groups are directly translated into Action 3.4.3.2 by proposing an enforcement on traffic regulations and Action 5.6.1.5 by promoting centralised parking near the area. On the other hand, outputs of these actions are quantitative and can monitor the progress of the action implementation.

Even though Issue 1.4 is addressed quite comprehensively by Action 3.4.3.2 and 5.6.1.5, these actions do not respond to any of the issue assertions raised by community focus groups.

Table 54: Results for assessment of Issue Code 1 – Accessibility

Level of Knowledge Transfer						
	Addressed		Partially addressed			Not addressed
Issue	Issue 1.4		Issue 1.1	Issue 1.2	Issue 1.3	
Focus Group	SM, HM		W	D	D	
Action	Action 3.4.3.2	Action 5.6.1.5	Action 5.6.1.6			
Budget	1.500.000 TRY	Activity	Activity			
Beneficiaries	visitors; residents; users					
Consultants						
Implementers						
Outputs	Quantitative	Quantitative	Quantitative			

Issue Code 8. Food market

Table 55 illustrates that issue assertions for Issue Code 8. Food market were raised by only the Women focus group which comprises community representatives.

Table 55: Issue Code 8 – Food market and associated Management Plan Actions

Focus Group Acronym and Issue assertions		Management Plan Actions
W	Issue 8.1: Prices in the food markets are reasonable because their supply of vegetables and fruits come from Hevsel Gardens.	Action 2.1.2.2: Monitor food prices in an effective and dynamic manner and develop a corporate organization that can carry out intervening purchases and sales when necessary.
W	Issue 8.2: Local people request an increase in the number of food stalls and markets clusters.	Action 2.1.2.1: Conduct surveys the Surici market structure to conduct neighbourhood-based food demand forecasts and create new market areas if needed.

Action 2.1.2.2 is associated with the Issue 8.1, while Action 2.1.2.1 corresponds to the Issue 8.2.

Table 56: Verifying connections for Action 2.1.2.2 and Action 2.1.2.1

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 2.1.2.2: Monitor food prices in an effective and dynamic manner and develop a corporate organization that can carry out intervening purchases and sales when necessary.	W Local Associations; DMM Departments; GABB; CATOM	Activity	No beneficiaries	"Chamber of Commerce and Industry Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"; "DMM Strategy Development Directorate"; "DMM Financial Resources Directorate"	"DPD of Agriculture and Forestry"
Action 2.1.2.1: Conduct surveys the Surici market structure to conduct neighbourhood-based food demand forecasts and create new market areas if needed.		580.000 TRY First year: Branding, patent, design and logo studies: 100.000 TRY Purchase of 5 vehicles for sale and distribution: 300.000 TRY Throughout 5 years: Formation of stores for sale of Hevsel local products: 200.000 TRY, annual rental of stores: 180.000 TRY	Hevsel Gardens' producers; Hevsel Gardens' consumers	"Dicle University Faculty of Agriculture"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "DMM Information Technology Directorate"; "Southeastern Anatolia Project Regional Development Administration"; "Chamber of Commerce and Industry Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"	"DMM Financial Resources Directorate"; "DPD of Agriculture and Forestry"

Action 2.1.2.2 is defined as an activity, and therefore beneficiaries are not defined for the action. Consultants are municipality departments and chambers of professions who are not participated in the Women focus

group. Implementer of the action is a local directorate of a central government institution. There is no connection between community stakeholders and implementers or consultants of the action.

Action 2.1.2.1 is a project action named '*Development of Hevsel Authentic Products Market*' with a budget of 580.000 TRY in total. Budget includes branding and patent studies, and procurement of 5 distribution vehicles for the first year, and formation of stores for local products and their expenses throughout 5 years. Beneficiaries of the action are listed as Hevsel Gardens' producers and consumers in general as the ones trading and consuming in these markets. Interestingly, Hevsel Gardens' producers, despite being direct beneficiaries are not included as either implementers or consultants to this action. As a whole, in both of these actions, there is no documentary evidence of contact between the implementers or consultants and the community.

Table 57: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 8.1: Prices in the food markets are reasonable because their supply of vegetables and fruits come from Hevsel Gardens.	Action 2.1.2.2: Monitor food prices in an effective and dynamic manner and develop a corporate organization that can carry out intervening purchases and sales when necessary.	Establishment of the organizational structure that can stabilise the market rate; The number of experts who monitor the food prices as a part of this organizational structure
Issue 8.2: Local people request an increase in the number of food stalls and markets clusters.	Action 2.1.2.1: Conduct surveys the Surici market structure to conduct neighbourhood-based food demand forecasts and create new market areas if needed.	Analysis reports showing food demand predictions; Number of marketplaces established based on these reports

Issue assertions raised by community refer to an economic situation and a spatial request connected to this situation. Issue 8.1 states the source of reasonable prices in the food markets while Issue 8.2 is a request of more food stalls and market clusters.

Action 2.1.2.2 refers to monitoring food prices and developing a corporate organization for purchases and sales. The action sentence is not clear about what this corporate organization is for, or who will be a part of this organization. Outputs of the action are the establishment of this organization and number of its staff. One can infer that either outputs or the action refers to a control mechanism on the situation raised by community stakeholders. Action 2.1.2.1 refers to a research on the food demand in Surici area and creation of new market areas based on the results of this research. One can infer that the action is translated into an assessment, comprising a review of the current market infrastructure followed by a forecast on demand with outputs dependent on results from this analysis. Outputs, however, are mainly quantitative, i.e., they relate to demand predictions with numbers of places established based on them.

Issues raised in focus group meetings by the community stakeholders are partially transferred into management plan actions. For example, in the Issue 8.1, the community claims prices are reasonable and therefore should be maintained. This request is directly transferred into the proposal of a regulatory structure to control food prices with outputs which, in spite not directly measuring this implementation and not having a designated budget assigned to it, seem to suggest it will be provided. The action and its outputs might attend consumer requests, but no evidence is provided in relation to how producers will take part in this

decision-making process, making it a potential focus for community tensions. On the other hand, Issue 8.2 is transferred as a control mechanism for the need for new food stalls and provision of them if they are absolutely necessary. There is no documentary evidence in relation to the placement and positioning of these new food stalls and market clusters in space as well as no documentary evidence in relation to how the community will have a say on these and will be taken into consideration in demand assessments.

Table 58: Results for assessment of Issue Code 8 – Food Market

Level of Knowledge Transfer				
	Addressed	Partially addressed		Not addressed
Issue		Issue 8.1	Issue 8.2	
Focus Group		W	W	
Action		Action 2.1.2.2	Action 2.1.2.1	
Budget		Activity	580.000 TRY	
Beneficiaries			Hevsel Gardens' producers and consumers	
Consultants				
Implementers				
Outputs		Quantitative	Quantitative, qualitative	

Issue Code 9. Public Facilities

Table 59 illustrates that issue assertions for Issue Code 9. Public Facilities are raised by four different focus groups. Three of them contain community representatives from the Women, the Children and the Youth focus groups, whereas one of them contain representatives from the Heritage Management focus group. However, no actions are reported in the management plan addressing these issue assertions.

Table 59: Issue Code 9 – Public Facilities

Focus Group Acronym and Issue Assertions		Management Plan Actions
W C	Issue 9.1: Providing more recreation and open spaces and upgrading the physical quality of streets and houses would improve the social and economic conditions in Surici.	No actions
W	Issue 9.2: Playgrounds for children and open sport areas for women are needed.	
Y	Issue 9.3: Young people ask for a youth centre in Surici and more facilities in parks.	
HM	Issue 9.4: Current social and technical infrastructure is not sufficient and should be improved especially for low-income people.	

There is a need for more public spaces and facilities for the community according to community stakeholders as stated by Issue 9.2 and Issue 9.3. Nevertheless, in Issue 9.1, they claim that if the built environment has better quality, social and economic conditions would get better (Table 59).

Issue Code 11. Social Housing

Table 60 illustrates those issues assertions for Issue Code 11. Social Housing were raised by three different community focus groups; the Women, the Youth, and the people with Disabilities.

Table 60: Issue Code 11 – Social Housing and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
W	Issue 11.1: People do not move out of the area, despite having been provided social housing, as they rent it to have an extra income and do not want to detach themselves from the solidarity network that they have in Surici.	Action 5.7.2.6: Encourage the establishment of local cooperative housing societies and local solidarity associations at the neighbourhood, district, and city scale.
Y	Issue 11.2: Young people request student social housing or student dormitories in Surici because of its closeness to Dicle University.	No actions
D	Issue 11.3: New social housing developments deteriorate the historical structure of Surici, especially when built in evacuated areas of Surici.	Action 5.1.5.6: Prioritise residential use and protect traditional street patterns while attaining commercial, service, cultural and touristic uses in the Surici area.

Issue 11.1 is associated with Action 5.7.2.6 and Issue 11.3 is associated with Action 5.1.5.6, respectively, raised by the Women and the people with Disabilities focus groups. Issue 11.2 is raised by the Youth focus group, and it is a request for student housing in the area due to the closeness to the university but there is no action refers to it.

Table 61: Verifying connections for Action 5.7.2.6 and Action 5.1.5.6

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.7.2.6: Encourage the establishment of local cooperative housing societies and local solidarity associations at the neighbourhood, district, and city scale.	W Local Associations; DMM Departments; GABB; CATOM	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"; "City Council"; GABB	"DMM Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"
Action 5.1.5.6: Prioritise residential use and protect traditional street patterns while attaining commercial, service, cultural and touristic uses in the Surici area.	D Local Associations DMM Departments	Activity	No beneficiaries	"TMMOB Diyarbakir Provincial Coordination Board"; "DPD of Culture and Tourism"; "Diyarbakir Surveys and Monuments Directorate"; "DMM Culture and Tourism Affairs Directorate"	"DMM KUDEB Directorate"; "Regional Council of Conservation of Cultural Assets"; "Sur Municipality Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"

Both Action 5.7.2.6 and Action 5.1.5.6 are defined as activity, and therefore beneficiaries are not defined for them, and no budget is assigned. South-eastern Anatolia Municipalities Association (GABB) and City Council as some of the consultants of Action 5.7.2.6 are present in the Women focus group. This association might represent the Women focus groups' interest, but there is no documentary evidence for this. There is also no connection between community stakeholders and implementers of the action. For the Action 5.1.5.6 neither consultants nor implementers include community stakeholders or their representatives.

Table 62: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 11.1: People do not move out of the area, despite having been provided social housing, as they rent it to have an extra income and do not want to detach themselves from the solidarity network that they have in Surici.	Action 5.7.2.6: Encourage the establishment of local cooperative housing societies and local solidarity associations at the neighbourhood, district, and city scale.	Number of local cooperative and local solidarity associations
Issue 11.3: New social housing developments deteriorate the historical structure of Surici, especially when built in evacuated areas of Surici.	Action 5.1.5.6: Prioritise residential use and protect traditional street patterns while attaining commercial, service, cultural and touristic uses in the Surici area.	Number of traditional streets and size of the area with the traditional fabric under protection in Surici area; The percentage of residential use within the Surici area

Issue assertions are mainly related with the local solidarity networks in the area and housing facilities provided by the government. Issue 11.1 states the importance of solidarity network in Surici area by the Women focus group. Issue 11.3 states that the negative impacts of new social housing developments on heritage.

Action 5.7.2.6 refers to supporting establishment of local housing cooperatives which might help local people to keep their solidarity network while benefiting from social housing opportunities. However, encouragement policies for local housing associations might not be enough to make it happen due to financial factors. The output is quantitative; the number of local cooperatives and solidarity associations. One can infer that the output shows only if any local cooperative is established but it does not give a clue about their activities, such as if they provided any social housing to the local community. Besides, the number of local associations would not provide the proof of their presence in the long term.

Action 5.1.5.6 refers to the priority of residential use and protection of traditional street patterns which partially reflects the Issue 11.3 stating the deterioration of historical structure in Surici due to new housing developments. Outputs of the Action 5.1.5.6 are purely quantitative, i.e., not referring to any specific streets to protect or any specific areas which would keep their historic identity despite the issue assertion of the focus group specifying evacuated areas of Surici.

One can infer that knowledge transfer from issue assertions into the management plan actions occurred to some degree for the Issue 11.1 and Issue 11.3. However, Issue 11.2 is not transferred to management plan actions at all.

Table 63: Results for assessment of Issue Code 11 – Social Housing

Level of Knowledge Transfer				
	Addressed	Partially addressed		Not addressed
Issue		Issue 11.1	Issue 11.3	Issue 11.2
Focus Group		W	D	Y
Action		Action 5.7.2.6	Action 5.1.5.6	
Budget		Activity	Activity	
Beneficiaries				
Consultants		GABB, City Council		
Implementers				
Outputs		Quantitative	Quantitative	

Issue Code 13. Transformation in situ

Table 64 illustrates that issue assertions were raised by five different focus groups for Issue Code 13. Transformation in situ. Three of them are community focus groups; the Women, the Youth, and the Children, while two of them are non-community focus groups; the Spatial Management and the Heritage Management. Two of the management plan actions do not refer to a specific issue assertion raised by any focus groups, but they are associated with the content of the Issue Code 13. Transformation in situ.

Table 64: Issue Code 13 – Transformation in situ and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
	No specific issue assertions	Action 5.7.2.2: Conduct and complete master planning studies with a holistic approach by evaluating possible transformation areas within the city walls together with existing transformation areas outside the city walls.
	No specific issue assertions	Action 5.7.2.3: Revise the transportation system changed by the Surici Master Plan, evaluate the provision of housing stock, examine feedback from previous transformation projects, and analyse similar examples from abroad.
SM	Issue 13.1: Rehabilitation projects of streets should be done through a more participative approach.	Action 5.7.1.1: Prioritise implementations of building reinforcement in the Surici area in the context of risk reduction works.
W Y SM	Issue 13.2: Local people do not want to be relocated during the transformation process due to high transportation costs to food markets and cemetery visits.	Action 5.7.1.2: Prioritise in situ transformation projects within the Surici area and prioritise existing rightsholders to select the location of their new houses.
HM	Issue 13.3: Local people cannot afford relocation even if the living conditions in Surici push for gentrification.	Action 5.7.1.3: Apply policies to avoid the suffering of rightsholders which could result from the transformation processes of risky buildings in the area, evaluate solutions (e.g. reinforcement first) and prioritise implementations, with consent from rightsholders, apply policies which respect property rights.
W C Y SM HM	Issue 13.4: Announcing Surici as an unsafe and dangerous area lead people to disengage from it. This is perceived as defamation to promote evacuation of communities living in it.	Action 5.7.2.1: Provide solutions which protect the rights of rightsholders and apply no-obligation policies for them in renewal, transformation, and rehabilitation projects of irregular residential areas, avoid gentrification by taking a lead role in consultation processes.

Focus Group Acronym and Issue Assertions		Management Plan Actions
W Y SM HM W Y SM HM	Issue 13.5: Due to previous evictions in other neighbourhoods under the frame of transformation, local people have a perception of exclusion and fear the future.	<p>Action 5.7.2.4: Evaluate transformation, renewal, and rehabilitation projects together with surrounding public and/or private properties and develop proper financial models without reimbursement, to provide housing for current rightsholders.</p> <p>Action 5.7.2.5: Develop a financial model for distribution of rights in renewal, transformation, and rehabilitation projects, enable rightsholders to benefit from becoming partners.</p>

Action 5.7.1.2, Action 5.7.2.1, Action 5.7.2.4, and Action 5.7.2.5 are associated with, respectively, Issue 13.2, Issue 13.4, and Issue 13.5, raised by community focus groups, while Action 5.7.1.1 and Action 5.7.1.3 correspond, respectively, Issue 13.1 and Issue 13.3, raised by non-community focus groups. Action 5.7.2.2 about master planning studies of transformation areas and Action 5.7.2.3 about reviewing the current situation and searching similar examples from abroad are not associated with any specific issue assertions.

Table 65: Verifying connections for Action 5.7.2.2, Action 5.7.2.3, Action 5.7.1.1, Action 5.7.1.2, Action 5.7.1.3, Action 5.7.2.1, and Action 5.7.2.4, Action 5.7.2.5

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.7.2.2: Conduct and complete master planning studies with a holistic approach by evaluating possible transformation areas within the city walls together with existing transformation areas outside the city walls.	-	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"; "City Council"; GABB	"DMM Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"
Action 5.7.2.3: Revise the transportation system changed by the Surici Master Plan, evaluate the provision of housing stock, examine feedback from previous transformation projects, and analyse similar examples from abroad.	-	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"; "City Council"; GABB; "DMM Transportation Directorate"	"DMM Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.7.1.1: Prioritise implementations of building reinforcement in the Surici area in the context of risk reduction works.	SM	Activity	No beneficiaries	"TMMOB Diyarbakir Provincial Coordination Board"; "City Council"	"DMM Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"; "Sur Municipality Construction and Urbanization Directorate"
Action 5.7.1.2: Prioritise in situ transformation projects within the Surici area and prioritise existing rightsholders to select the location of their new houses.	SM W Local Associations; DMM Departments; GABB; CATOM Y Local Associations DMM Departments	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"; "City Council"	"DMM Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"
Action 5.7.1.3: Apply policies to avoid the suffering of rightsholders which could result from the transformation processes of risky buildings in the area, evaluate solutions (e.g. reinforcement first) and prioritise implementations, with consent from rightsholders, apply policies which respect property rights.	HM	Activity	No beneficiaries	"Dicle University"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"; "City Council"	"DMM Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"; "Chamber of Civil Engineers Diyarbakir Branch"
Action 5.7.2.1: Provide solutions which protect the rights of rightsholders and apply no-obligation policies for them in renewal, transformation, and rehabilitation projects of irregular residential areas, avoid gentrification by taking a lead role in consultation processes.	SM HM W Local Associations; DMM Departments; GABB; CATOM Y Local Associations; DMM Departments C Local Associations; DMM Departments; GABB; CATOM	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"; "City Council"; GABB	"DMM Construction and Urbanization Directorate"; "DPD of Environment and Urbanization"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
<p>Action 5.7.2.4: Evaluate transformation, renewal, and rehabilitation projects together with surrounding public and/or private properties and develop proper financial models without reimbursement, to provide housing for current rightsholders.</p> <p>Action 5.7.2.5: Develop a financial model for distribution of rights in renewal, transformation, and rehabilitation projects, enable rightsholders to benefit from becoming partners.</p>	<p>SM HM</p> <p>W</p> <p>Local Associations; DMM Departments; GABB; CATOM</p> <p>Y</p> <p>Local Associations; DMM Departments</p>	Activity	No beneficiaries	<p>"Sur Municipality Construction and Urbanization Directorate";</p> <p>"Yenisehir Municipality Construction and Urbanization Directorate";</p> <p>"TMMOB Diyarbakir Provincial Coordination Board";</p> <p>"City Council"; GABB</p>	<p>"DMM Construction and Urbanization Directorate";</p> <p>"DPD of Environment and Urbanization"</p>

Issue assertions are mainly related with the transformation policies of the government and community's request of transformation in situ and oppositions to evacuation policies. Since all of the actions are defined as activity, there are no defined beneficiaries and no assigned budget to them. Implementers of all actions are one municipality department and one local branch of central government. There are no strings attached between community stakeholders and implementers. Consultants, on the other hand, include GABB and City Council, which are respectively a regional municipalities association and a Diyarbakir Metropolitan Municipality department participated in the Women and the Children focus group meetings. Even if there is no solid evidence of it, one can infer that they might represent community focus groups' interests as consultants. Interestingly, the implementers of all actions are the government institutions who are currently working on transformation projects, and it is expected that they would have been aware of the opinions or the requests of the community. However, issue assertions imply a conflict between authorities and community.

Table 66: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue Code	Action 5.7.2.2: Conduct and complete master planning studies with a holistic approach by evaluating possible transformation areas within the city walls together with existing transformation areas outside the city walls.	Master plan report

Issue	Action	Output
Issue Code	Action 5.7.2.3: Revise the transportation system changed by the Surici Master Plan, evaluate the provision of housing stock, examine feedback from previous transformation projects, and analyse similar examples from abroad.	Master plan report
Issue 13.1: Rehabilitation projects of streets should be done through a more participative approach.	Action 5.7.1.1: Prioritise implementations of building reinforcement in the Surici area in the context of risk reduction works.	Number of buildings strengthened in Surici area
Issue 13.2: Local people do not want to be relocated during the transformation process due to high transportation costs to food markets and cemetery visits.	Action 5.7.1.2: Prioritise in situ transformation projects within the Surici area and prioritise existing rightsholders to select the location of their new houses.	Number of the rightsholders who remains in place in the transformation areas
Issue 13.3: Local people cannot afford relocation even if the living conditions in Surici push for gentrification.	Action 5.7.1.3: Apply policies to avoid the suffering of rightsholders which could result from the transformation processes of risky buildings in the area, evaluate solutions (e.g. reinforcement first) and prioritise implementations, with consent from rightsholders, apply policies which respect property rights.	Number of risky structures transformed with the consent of the rightsholders
Issue 13.4: Announcing Surici as an unsafe and dangerous area lead people to disengage from it. This is perceived as defamation to promote evacuation of communities living in it.	Action 5.7.2.1: Provide solutions which protect the rights of rightsholders and apply no-obligation policies for them in renewal, transformation, and rehabilitation projects of irregular residential areas, avoid gentrification by taking a lead role in consultation processes.	Number of consultation meetings carried out with the households in the area
Issue 13.5: Due to previous evictions in other neighbourhoods under the frame of transformation, local people have a perception of exclusion and fear the future.	Action 5.7.2.4: Evaluate transformation, renewal, and rehabilitation projects together with surrounding public and/or private properties and develop proper financial models without reimbursement, to provide housing for current rightsholders.	Number of residences provided to rightsholders without reimbursement in transformation areas
	Action 5.7.2.5: Develop a financial model for distribution of rights in renewal, transformation, and rehabilitation projects, enable rightsholders to benefit from becoming partners.	Number of rightsholders who become a partner

Issue 13.4 and Issue 13.5 raised by the Women, the Youth and the Children focus groups reflect a conflict between the government and the community because of opposite interests. Issue 13.2 raised by the Women and the Youth focus groups, represents the desire of community to stay in the Surici area and not being evacuated due to transformation projects.

Action 5.7.2.2 and Action 5.7.2.3 refer to master planning studies on transformation areas and their outputs are master plan reports. These actions refer to the issue code in general but neither actions nor outputs do not specify what is the content of the master plans.

Action 5.7.1.2 refers to giving priority to existing rightsholders for the selection of the location of their new houses in transformation projects. The output of the action is the number of the rightsholders who remains in place in the transformation areas which is the request by the community stakeholders raised the Issue 13.2.

Action 5.7.2.1 refers to the policies of avoiding gentrification during the transformation projects which corresponds to the Issue 13.4, perception of disengagement by the community living in the area. The output of the action is the number of the consultation meetings carried out with the community. However, the content of the meetings and the participants are not clear. One can infer that these meetings might not provide the solutions to protect the rights of the rightsholders in the area. Issue 13.5 is also similar to Issue 13.4, stating the perception of exclusion by the community due to previous evictions in the area. Actions associated to this issue refer to the evaluation of existing projects and developing new financial models without evictions. Outputs of these actions are number of rightsholders who benefit from the new financial models, which are clear indicators to monitor the actions.

Issue 13.1 about rehabilitation projects and Issue 13.3 about relocation of local people are raised by non-community stakeholders are respectively addressed by Action 5.7.1.1 and Action 5.7.1.3. These actions are about reinforcement of buildings in the Surici area and protecting the rights of the rightsholders. Output of these actions are the number of buildings strengthened or transformed with the consent of rightsholders. One can infer that these outputs can monitor the action implementation but Action 5.7.1.1 about strengthening risky buildings is not addressing to the Issue 13.1 about transformation of streets with a more participative approach. Despite Issue 13.3 is partially addressed by Action 5.7.1.3, these issues are raised by non-community stakeholders.

Issues raised in focus group meetings by the community stakeholders are either partially translated or fully translated into management plan actions in terms of their context. However, no assigned budget and existing conflict between the community and the implementers of the actions creates a doubt for the implementation of these actions.

Table 67: Results for assessment of Issue Code 13 – Transformation in situ

Level of Knowledge Transfer								
	Addressed			Partially addressed		Not addressed		
Issue	Issue 13.2	Issue 13.5		Issue 13.4	Issue 13.3	Issue 13.1		
Focus Group	W, Y	W, Y		W, C, Y	HM	SM		
Action	Action 5.7.1.2	Action 5.7.2.4	Action 5.7.2.5	Action 5.7.2.1	Action 5.7.1.3	Action 5.7.1.1	Action 5.7.2.2	Action 5.7.2.3
Budget	Activity	Activity		Activity	Activity	Activity	Activity	
Beneficiaries								
Consultants	City Council	City Council, GABB		City Council, GABB	City Council	City Council	City Council, GABB	
Implementers								
Outputs	Quantitative	Quantitative		Quantitative	Quantitative	Quantitative	Qualitative	

A.2. Issue Family 2: Social and Economic Problems

Issue Codes in the Issue Family 2. Social and Economic Problems are ‘Child Education’, ‘Child labour and abuse’, ‘Employment in situ’, ‘Safety Problems’, ‘Social Services’, and ‘Women Solidarity’. All community focus groups stated issue assertions related to social services and safety problems except for the Hevsel Gardens focus group. The Women focus group focused on problems about children and those women face in their social and economic lives, whereas the people with Disabilities focus group raised issues about local employment.

Issue Code 3. Child Education

Table 68 illustrates that issue assertions for Issue Code 3. Child Education were raised by two different community focus groups; the Women and the Children.

Table 68: Issue Code 3 – Child Education and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
W	Issue 3.1: Seasonal employment for agriculture causes problems in children’s educational life. When the harvest season starts, families must leave the city so children cannot continue going schools.	Action 3.3.1.4: Include studies on improving the level of education constantly in the agenda and support awareness raising activities to extend the duration of education.
		Action 3.3.1.5: Conduct regular follow-up studies to send children to schools, to increase attendance, and to extend the duration and level of education.
		Action 3.3.1.6: Support activities to increase urban, social, and cultural development of children living in the management plan area, support awareness raising activities on the importance of education.
C	Issue 3.2: Mothers believe that pre-school education is important for their children because of the language barrier. However, pre-school education facilities are not enough or common.	No actions
W C	Issue 3.3: Official language becomes a problem for children because they are growing up with a different native language.	No actions

Action 3.3.1.4, Action 3.3.1.5, and Action 3.3.1.6 are associated with Issue 3.1 about the drawbacks of seasonal employment on children’s education, raised by the Women community focus group. On the other hand, Issue 3.2 and Issue 3.3 are about the language barrier children face when they enrol to the schools. However, no management plan actions are reported addressing these issue assertions.

Table 69: Verifying connections for Action 3.3.1.4, Action 3.3.1.5, Action 3.3.1.6

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.3.1.4: Include studies on improving the level of education constantly in the agenda and support awareness raising activities to extend the duration of education.	W Local Associations; DMM Departments; GABB; CATOM	1.000.000 TRY One in Surici area and one in the outer fortress area, two Children Homes in total would be constructed to run the Children Homes Project. Bastions or other cultural values can be used for these Children Homes which are also utilized as community centres.	Children; Disadvantaged groups; Families in the management plan area	"Dicle University"; "DMM Social Services Directorate"; NGOs; Women and youth associations	"Karacadag Development Agency"; "DPD of National Education"
Action 3.3.1.5: Conduct regular follow-up studies to send children to schools, to increase attendance, and to extend the duration and level of education.				"Diyarbakir Governorship Population and Citizenship Directorate"; Related Mukhtars; "Karacadag Development Agency"; NGOs	"DPD of National Education"; "DMM Social Services Directorate"
Action 3.3.1.6: Support activities to increase urban, social, and cultural development of children living in the management plan area, support awareness raising activities on the importance of education.				NGOs working on women, education, and children; Professional Chambers and Associations; "Dicle University"	"DMM Social Services Directorate"; "Diyarbakir Governorship Social Aid and Solidarity Provincial Directorate"

All three management plan actions are a part of one project called 'Children Homes Pilot Project' and budgeted 1.000.000 TRY in total. The project aims to construct Children Homes, one in the Surici area and another out of the Surici area. Bastions or other cultural values are planned to be utilized for these Children Homes which would function as community centres. Beneficiaries of all actions are children, disadvantaged groups and families in the management plan area who are also represented in the Woman focus group by local associations.

NGOs are a common consultant for all actions. However, they are not defined clearly, and one can infer that they are the ones in the community focus groups. Although the reason might be to include any possible local associations by not naming them, nonetheless the situation accommodates obscurity which is open to rejection of any unwelcome associations by the implementers. On the other hand, for Action 3.3.1.5, related mukhtars are included as another consultant actor. They might be considered as the institutional representatives of the community focus groups since they are the neighbourhood authorities elected by local people.

The implementers include municipal, regional, and central authorities responsible for education and social services. There are no strings attached between the Woman focus group and any of the implementers. As a central actor, DPD of National Education is the main authority in charge of the educational affairs in the city. Therefore, Action 3.3.1.4 and Action 3.3.1.5 are most likely to be implemented if this actor is informed about the action by the municipal or regional implementers.

Table 70: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 3.1: Seasonal employment for agriculture causes problems in children's educational life. When the harvest season starts, families must leave the city so children cannot continue going schools.	Action 3.3.1.4: Include studies on improving the level of education constantly in the agenda and support awareness raising activities to extend the duration of education.	Number of educational activities for parents about children's education; Percentage of increase in the level of education and the attendance to education in the area; Ratio of the elongation of attendance in education
	Action 3.3.1.5: Conduct regular follow-up studies to send children to schools, to increase attendance, and to extend the duration and level of education.	Increase in the percentage of enrolment to schools Increase in the percentage of girls continuing to education; Number of boys and girls continuing to education; Ratio of boys and girls going back to education
	Action 3.3.1.6: Support activities to increase urban, social, and cultural development of children living in the management plan area, support awareness raising activities on the importance of education.	Number of awareness raising activities to increase the urban, social and cultural development of children; Number of children attending to these activities

Issue 3.1 raised by the Women focus group refers to a problem in continuation to the school for children due to seasonal employment of the families. It represents a cause-and-effect situation in which the cause is seasonal employment, and the effect is discontinuation to education.

Actions are mitigating the effect, not acting on the cause to solve the problem, since the solution for seasonal employment issue cannot be provided within the scope of the management plan. Action 3.3.1.4 aims to improve the level of education in the area and to increase the time of attendance of pupils to schools. The percentage of increase in education levels and the ratio of elongation of attendance might be the indicators for the action whereas, number of educational activities will show only if the activities take place or not, the number is not a relational or comparative indicator to monitor an action.

Action 3.3.1.5 is a follow-up action in order to control the level of education in the area. The numbers of pupils would provide a picture of the situation in the area as regards education if the total population of children in the school age is known. One can assume that this information is exist but without comparison the numbers and ratios do not explain the situation in the area. Therefore, one can infer that the definitions of the outputs are weak.

Action 3.3.1.6 is focused on raising awareness on education and supporting education of children. However, the numbers would not show that if those activities helped children to raise their awareness but can imply

how many children are reached out. However, any of the outputs in all these actions do not refer to space in which those works will occur. The only location mentioned is the management plan area which is a very vague definition for such a large geographical zone.

Outputs are quantitative indicators that keep track of the level of the problem and monitors the progress. Nevertheless, proposed actions are not a direct transfer of the issue stated by the community stakeholders. They are focused on only to the duration of education or level of education.

Issues raised in focus group meetings by the community stakeholders are either partially translated or not translated into management plan actions. For example, Issue 3.2 and Issue 3.3 are not transferred to management plan actions, while Issue 3.1 is partially translated into management plan actions.

Table 71: Results for assessment of Issue Code 3 – Child Education

Level of Knowledge Transfer					
	Addressed	Partially addressed			Not addressed
Issue		Issue 3.1			Issue 3.2 Issue 3.3
Focus Group		W			C W, C
Action		Action 3.3.1.4	Action 3.3.1.5	Action 3.3.1.6	
Budget		1.000.000 TRY			
Beneficiaries		Children, disadvantaged groups and families in the management plan area			
Consultants		NGOs, Women and youth associations			
Implementers					
Outputs		Quantitative			

Issue Code 4. Child labour and abuse

Table 72 illustrates that the issue assertions for Issue Code 4. Child labour and abuse were raised by three different focus groups; two of them contain community representatives from the Women and the Children focus groups whereas the other contains representatives from the Spatial Management focus group.

Table 72: Issue Code 4 – Child labour and abuse and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
	No specific issue assertions	Action 3.3.1.2: Conduct activities to increase influence and control of families on children to deflect child labour and child abuse.
	No specific issue assertions	Action 3.3.1.3: Provide educational activities for parents on risks and dangers children face while working or spending time away on the streets, with the corresponding potential impacts of these activities on their growth.
W C	Issue 4.1: Even though child abuse and incestuous relationships are detected, families lack psychological counselling and rehabilitation services to prevent those occurrences.	Action 3.3.1.1: Constitute neighbourhood teams formed by specialists who can trace and solve psychological, family, and social problems that children face.
C	Issue 4.2: It is necessary to provide education for families on how to raise children, how to improve communication with children and how to prevent the use of drugs by children.	

Focus Group Acronym and Issue Assertions		Management Plan Actions
C SM	Issue 4.3: Families allow their children to work to increase the household income.	Action 3.1.1.3: Increase qualified workforce in the management plan area to discourage illegal work.
W	Issue 4.4: To benefit from the income earned by children working in factories and on the streets, women do not want to move out from Surici.	

Action 3.3.1.1 is associated with Issue 4.1 and Issue 4.2 raised by the Women and the Children focus groups. On the other hand, Action 3.1.1.3 is associated with Issue 4.3 and Issue 4.4 raised by the Women and the Children community focus groups and the Spatial Management non-community focus group.

Action 3.3.1.2 and Action 3.3.1.3 do not refer to any specific issue assertions raised by any focus groups, but they are associated with the content of the Issue Code 4 – Child labour and abuse in general. Action 3.3.1.2 about preventing child labour by increasing the control of families over children and Action 3.3.1.3 about providing educational activities for parents on the growth of children are not associated with any specific issue assertions.

Table 73: Verifying connections for Action 3.3.1.2, Action 3.3.1.3, Action 3.3.1.1, Action 3.1.1.3

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.3.1.2: Conduct activities to increase influence and control of families on children to deflect child labour and child abuse.	W Local Associations; DMM Departments; GABB; CATOM C	590.000 TRY Educational activities for improving education level, supporting elongation of continuation to education regularly, and the importance of social and cultural development of children. For all the materials for these activities and the salaries of the educators for a year, budget is 350.000 TRY	Young people; Children; Disadvantaged groups; Families in the management plan area	"Dicle University"; NGOs working on women, education, and children	"DMM Social Services Directorate"; "Diyarbakir Governorship Social Aid and Solidarity Provincial Directorate"
Action 3.3.1.3: Provide educational activities for parents on risks and dangers children face while working or spending time away on the streets, with the corresponding potential impacts of these activities on their growth.	Local Associations; DMM Departments; GABB; CATOM	For the neighbourhood studies, a team of two for each neighbourhood in 69 neighbourhoods will organize 4 workshops within a year and they would continue for 3 years which cost 240.000 TRY in total.		NGOs working on women, education, and children; "Diyarbakir Governorship Social Aid and Solidarity Provincial Directorate"	"DMM Social Services Directorate"; "DPD of National Education"
Action 3.3.1.1: Constitute neighbourhood teams formed by specialists who can trace and solve psychological, family, and social problems that children face.				NGOs working on women, education, and children; Professional Chambers and Associations; "Dicle University"	"DMM Social Services Directorate"; "Diyarbakir Governorship Social Aid and Solidarity Provincial Directorate"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.1.1.3: Increase qualified workforce in the management plan area to discourage illegal work.		1.462.000 TRY Consultancy and training on entrepreneurship 21.000 TRY 4 times a year (every 3 months) for 3 years: 252.000 TRY	Economically active disadvantaged poor population; Commercial enterprises; Commercial entrepreneurs in the management plan area	"Karacadag Development Agency"; "KOSGEB"; "Chamber of Commerce and Industry"; "Chamber of Merchants and Craftsmen Diyarbakir Branch"; Youth and Women Organizations	"DPD of Industry and Commerce"; Relevant Divisions of the Ministry of Treasury and Finance; "DMM Constabulary Directorate"; "Turkish Employment Agency"

The first three management plan actions are composed as a project called “*Improvement in Education*” which aims to improve the level of education in the area. Action 3.3.1.2 and Action 3.3.1.3 propose educational activities that would be carried out for the parents of pupils in the schools within the management plan area. These activities consist of the subjects of improving education level, supporting elongation of continuation to education regularly, and the importance of social and cultural development of children and planned to be held during the whole year as two months periods for every single school in the management plan area. A budget of 350.000 TRY is assigned for all the materials for these activities and the salaries of the educators for a year. Action 3.3.1.1 is related to the provision of professional support for families living in the neighbourhoods within the management plan area. A team of two specialists would be assigned to each neighbourhood, in total 69 neighbourhoods to organize 4 workshops within a year. These workshops are budgeted 80.000 TRY and they would continue for 3 years which cost 240.000 TRY in total. The total budget of the project would be 590.000 TRY. Beneficiaries of the project are young population, children, disadvantaged groups and families in the management plan area who are represented in the Woman and Child focus groups. Nonetheless, one can infer that the term ‘young population’ does not clearly specify who is included in it. Action 3.1.1.3 is also a part of another project about the transformation of the economically active population to qualified workforce. The budget for consultancy and training on entrepreneurship (calculated based on the daily payroll of a consultant who runs the training for 7 days, every 3 months for 3years) is determined as 252.000 TRY. Beneficiaries of the action are the disadvantaged poor population in active working age, commercial enterprises, and entrepreneurs in the management plan area. One can infer that community focus groups represent the economically active disadvantaged poor population. The detailed distribution of budget and connection between community focus groups and beneficiaries of the actions refer that implementation of all four actions is most likely to happen.

Consultants include community representatives for all actions such as NGOs working on women, education and children, and Youth and Women Organizations. NGOs and organizations can be understood as the local associations for women and children in focus groups, despite not being clear which NGO or organization are included or who is going to decide which one to consult. The decision of not naming stakeholders directly can be twofold: on one hand it can be considered inclusive, offering the possibility to invite any relevant

association to be consulted, but on the other hand offers no contractual guarantee the stakeholders consulted in focus groups are going to be listened.

Implementers of all actions are either local government or local branches of central government; but there is no connection between the community focus groups and implementers. Consultants in general include actors from associations, organizations, university and community stakeholders. On the other hand, implementers are mainly institutions and governmental bodies.

Entrepreneurs and commercial enterprises are defined as the other beneficiaries of Action 3.1.1.3, despite not being represented in the community focus group. Commercial enterprises or entrepreneurs are included as beneficiaries, but it is questionable how can they benefit if they take advantage of cheap labour by employing illegal workers.

Consultants for Action 3.1.1.3 include professional chambers who are in a direct relationship with commercial enterprises. Theoretically, every single commercial enterprise or entrepreneur is registered as a member of related chamber as part of a legal requirement that allows to someone to run a business. Professional chambers are legal institutions who regulate illegal activities, and it is logical that they are included as consultants and implementers to enforce and control members registered with them.

The implementers include DMM Constabulary Directorate and Turkish Employment Agency who are control mechanisms; former for the commercial activities in the city and latter for the employment support. On the other hand, Turkish Employment Agency works for unemployed people in the working age but not especially for poor population. It requires registration and therefore would not account for the whole unemployed population but only for the registered portion of it.

DPD of Industry and Commerce and relevant divisions of the Ministry of Treasury and Finance represent central government. Interestingly, community stakeholders are not included as implementers of the action but are controlled or supported by it instead. How community can be implementers of this action is a question mark since the issue is a socio-economic problem of the society in the area.

Table 74: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue Code	Action 3.3.1.2: Conduct activities to increase influence and control of families on children to deflect child labour and child abuse.	Number of families reached out; Number of neighbourhoods reached out and/or worked on; Yearly work report
Issue Code	Action 3.3.1.3: Provide educational activities for parents on risks and dangers children face while working or spending time away on the streets, with the corresponding potential impacts of these activities on their growth.	Number of families/parents who have participated in activities of preventing child labour and child abuse; Ratio of decrease in child labour in the area; Ratio of decrease in the number of children working on the streets
Issue 4.1: Even though child abuse and incestuous relationships are detected, families lack psychological counselling and rehabilitation services to prevent those occurrences.	Action 3.3.1.1: Constitute neighbourhood teams formed by specialists who can trace and solve psychological, family, and social problems that children face.	Number of neighbourhoods reached out and/or worked on; Six-monthly work reports

Issue	Action	Output
Issue 4.2: It is necessary to provide education for families on how to raise children, how to improve communication with children and how to prevent the use of drugs by children.		
Issue 4.3: Families allow their children to work to increase the household income.	Action 3.1.1.3: Increase qualified workforce in the management plan area to discourage illegal work.	Number of institutions and employers providing the safe employment conditions in the area; Number of institutions and employers prioritising the employment of skilled labour force;
Issue 4.4: To benefit from the income earned by children working in factories and on the streets, women do not want to move out from Surici.		Percentage of decrease in unregistered employment in the area; Increase in the population residing in the area and working safely

Issue 4.1 and Issue 4.2 are respectively related with the continual occurrences of child abuse due to lack of support and the necessity of education for families on how to raise children. One management plan action, Action 3.3.1.1, is found addressing to these issues by supporting families with specialists. Issue 4.3 and Issue 4.4 are related with child labour and the only corresponding management plan action is Action 3.1.1.3 which proposes to increase qualified workforce in the area to discourage illegal work.

Issue 4.1 raised by the Women focus group and Issue 4.2 raised by the Women and the Children focus groups are about the lack of educative activities on communication within family. They stress the child abuse and incestuous relationships due to lack of education. On the other hand, Issue 4.3 raised by the Children focus group and Issue 4.4 raised by the Women focus group are related to the economic conditions of the households in Surici area. This economic condition led parents to allow children to work and employers apparently benefit from child labour –children under 15 years old– even though it is forbidden by law in Turkey (Work Law No 4857, Article 71).

Action 3.3.1.2 and Action 3.3.1.3 are addressing all the issue assertions in general and focusing on both child labour and abuse. The former is a policy action aiming to increase the parental control on children, the latter focuses on informing parents about the dangers and risks of child labour and its potential drawbacks on children's growth. Number of families reached out may provide the information of how many families are informed and yet, content of yearly report is not clear. Number of families/parents participated in the educational activities is not a comparable output, but ratio of the decrease in child labour and in the number of children working on the streets can monitor the action.

Action 3.3.1.1 addressing the Issue 4.1 and Issue 4.2 proposes to constitute neighbourhood teams to track all the problems children face, and its output, the number of neighbourhoods in which those teams would work on, can show that how much the action is completed since the total number of neighbourhoods (69) is given in the budget explanation above.

Action 3.1.1.3 is aiming to increase the qualified labour to discourage illegal labour and its monitoring indicators are the number of employers providing safe working medium, the number of employers hiring skilled labour, the percentage of decrease in unregistered employment, and the increase in the population

working under safe conditions. One can infer that these outputs are not specific to the action but monitoring a broader situation in the area related with illegal labour instead of child labour specifically.

In conclusion, Issue 4.1 and Issue 4.2 are translated into Action 3.3.1.1, and Issue 4.3 and Issue 4.4 are partially translated into Action 3.3.1.2 and Action 3.3.1.3, while Action 3.1.1.3 does not address to any of the issue assertions raised in community focus group discussions, but it is a broader policy action which covers the topic from the authorities' perspective rather than the community. However, except Action 3.1.1.3, the other management plan actions addressing Issue Code 4 – Child labour and abuse have a budget assigned and consultants include NGOs representing community stakeholders, even though they are not particularly named. One can infer that the implementation of these actions is most likely.

Table 75: Results for assessment of Issue Code 4 – Child labour and abuse

Level of Knowledge Transfer						
	Addressed		Partially addressed		Not addressed	
Issue	Issue 4.1	Issue 4.2			Issue 4.3	Issue 4.4
Focus Group	W, C	C			C, SM	W
Action	Action 3.3.1.1		Action 3.3.1.2	Action 3.3.1.3	Action 3.1.1.3	
Budget	240.000 TRY		350.000 TRY		252.000 TRY	
Beneficiaries	Young population, children, disadvantaged groups and families		Young population, children, disadvantaged groups and families		Disadvantaged poor population in active working age	
Consultants	NGOs working on women, education and children		NGOs working on women, education and children		Youth and Women Organizations	
Implementers	-		-		-	
Outputs	Quantitative and qualitative		Quantitative and qualitative		Quantitative	

Issue Code 6. Employment in situ

Table 76 illustrates that issue assertions were raised by three different focus groups for Issue Code 6. Employment in situ. One of them contains community representatives from the people with Disabilities focus group whereas the other two contain non-community representatives from the Heritage Management and the Spatial Management focus groups. Nine of the management plan actions do not refer to a specific issue assertion raised by any focus groups but they address the content of the Issue Code 6. Employment in situ in general.

Table 76: Issue Code 6 – Employment in situ and associated Management Plan Actions

Focus Group Acronym and Issue Assertions	Management Plan Actions
No specific issue assertions	Action 2.2.3.1: Develop an implementation plan for the workforce based on an analysis of work experience and trends in different tourism themes.
No specific issue assertions	Action 2.2.3.2: Develop local cooperation for day trip destinations or hospitality.
No specific issue assertions	Action 2.3.1.3: Organise handcraft master programs for young generations.
No specific issue assertions	Action 2.3.2.1: Constitute sale cooperatives for arts and crafts.

Focus Group Acronym and Issue Assertions		Management Plan Actions
	No specific issue assertions	Action 2.3.2.4: Create areas for arts and crafts sales in day trip destinations and hospitality.
	No specific issue assertions	Action 3.1.1.1: Apply policies to transform the economically active population, particularly impoverished population in the area, into active workforce in the tourism, service and agriculture sectors through professional skills and certification programs.
	No specific issue assertions	Action 3.1.1.2: Conduct surveys to determine workforce demand for businesses in the arts and crafts, tourism and service sectors (tour guides, tour operators, hotel services, different types of arts and crafts such as copper mastery, carpentry, crafts, etc.) in the management plan area.
	No specific issue assertions	Action 5.3.3.1: Conduct planning and design studies to develop a spatial implementation guideline for arts and crafts sales areas at the main visitor routes and implement it.
	No specific issue assertions	Action 5.3.3.2: Conduct spatial arrangements in bazaars, streets, and khans where traditional craftsmanship activities such as throne building, ironworking, copper working, silk weaving etc. are carried out. Create areas where craftsmen can exhibit their production processes, within the cultural heritage structures in Surici traditional centre.
SM HM	Issue 6.1: During the rehabilitation and restoration works, new functions should be decided to increase local women's employment.	Action 3.2.1.4: Carry out widespread studies to support the participation of impoverished women residing in the management plan area in social and economic life.
		Action 3.2.1.5: Create areas where women can produce and sell traditional handmade products to promote tourism and enable their participation in economic life.
D HM	Issue 6.2: Bastions should be used for whatever purpose which contributes to increasing local people's employment.	Action 5.1.1.4: Evaluate bastions having interior space adequate for public uses for local people, and social and cultural uses with intermittent use for visitors based on the Utilization plan for Bastions and their surroundings prepared by the DMM Site Management Unit, within the Integrated City Walls Restoration Program. Ensure these implementations are done following decisions of Regional Council of Conservation of Cultural Assets. Monitor the impact of the uses given to these bastions on their cultural value.

Action 3.2.1.4 and Action 3.2.1.5 are addressing to the Issue 6.1 raised by non-community stakeholders. Action 5.1.1.4 is corresponding to the Issue 6.2 raised by the people with Disabilities community focus group and the Heritage Management non-community focus group. Action 2.2.3.1 and Action 3.1.1.2 are about conducting surveys on workforce demand in different sectors for the area, whereas Action 2.3.1.3 and Action 3.1.1.1 are related to providing training activities for local employment, the former for young generations, the latter for impoverished population in the area. The policies to improve the local cooperation in the tourism sector are present in the Action 2.2.3.2 and Action 2.3.2.1, while the spatial interventions such as creating sales areas, exhibiting traditional craftsmanship activities in the cultural heritage structures are in the Action 2.3.2.4, Action 5.3.3.1, and Action 5.3.3.2. These actions are spatial implementation decisions and policies on workforce, cooperation, and training, but they are not associated with any specific issues assertions.

Table 77: Verifying connections for Action 2.2.3.1-2, Action 2.3.1.3, Action 2.3.2.1,4, Action 3.1.1.1-2, Action 5.3.3.1-2, Action 3.2.1.4-5, and Action 5.1.1.4

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 2.2.3.1: Develop an implementation plan for the workforce based on an analysis of work experience and trends in different tourism themes.	-	770.000 TRY Conducting research on workforce trend and experience analysis for 7 tourism themes: 420.000 TRY. Developing an implementation plan for workforce: 350.000 TRY	Tourism entrepreneurs; Tourism enterprises in the management plan area	"DMM Culture and Tourism Affairs Directorate"; "DMM Strategy Development Directorate"	"Turkish Employment Agency"; "Karacadag Development Agency"; "DPD of Culture and Tourism"
Action 2.2.3.2: Develop local cooperation for day trip destinations or hospitality.		200.000 TRY Training and support services including consultancy, administration, and entrepreneurship for enterprises for 4 years, once a year: 50.000 TRY per year.	Tourism enterprises; Tourism institutions; Tourism organizations; Tourism employees	"Karacadag Development Agency"; "DMM Culture and Tourism Affairs Directorate"; Neighbourhood Mukhtars	"Chamber of Commerce and Industry Diyarbakir Branch"; "Chamber of Merchants and Craftsmen Diyarbakir Branch"
Action 2.3.1.3: Organise handcraft master programs for young generations.		612.000 TRY Providing crafts trainings for 6 months for 4 craft branches: 72.000 TRY	Craftsmen; Economically active young people; Future generations in the management plan area; Diyarbakir residents	"Diyarbakir Governorship Social Support Program"; "Karacadag Development Agency"; "DMM Culture and Tourism Affairs Directorate"; "Turkish Employment Agency"	"Chamber of Merchants and Craftsmen Diyarbakir Branch"; "Chamber of Commerce and Industry Diyarbakir Branch"; "Dicle University"; "DMM Vocational Education Directorate"; "DPD of Culture and Tourism"
Action 2.3.2.1: Constitute sale cooperatives for arts and crafts.		350.000 TRY Establishing sale cooperatives for arts-crafts products: 350.000 TRY for organization, space rent, arrangements for sales process, creating a product range, presentation and marketing for one year period.	Craftsmen in the management plan area; Diyarbakir residents; Economically active young people; Future generations who uphold craftsmanship	"DPD of Culture and Tourism"; "DMM Culture and Tourism Affairs Directorate"; "Dicle University"; "Karacadag Development Agency"	"Chamber of Merchants and Craftsmen Diyarbakir Branch"; "Chamber of Commerce and Industry Diyarbakir Branch"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 2.3.2.4: Create areas for arts and crafts sales in day trip destinations and hospitality.		500.000 TRY Locating sales stalls in three different daily tourism areas to be defined: 500.000 TRY. 300.000 TRY of it is assumed to be spent on the first year for sales areas and 200.000 TRY is assumed to be spent on the consecutive years for the expenses of those sales areas.	Craftsmen in the management plan area; Diyarbakir residents; Visitors	"DPD of Culture and Tourism"; "Chamber of Merchants and Craftsmen Diyarbakir Branch"; "Chamber of Commerce and Industry Diyarbakir Branch"; "Dicle University"; "Karacadag Development Agency"	"DMM Culture and Tourism Affairs Directorate"; "DMM KUDEB Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"
Action 3.1.1.1: Apply policies to transform the economically active population, particularly impoverished population in the area, into active workforce in the tourism, service and agriculture sectors through professional skills and certification programs.		1.462.000 TRY Conducting work-guaranteed professional skills certificate programs: 372.000 TRY per year for 6 certificate programs. For 3 years 1.116.000 TRY in total. Conducting the workforce demand research bi-annually: 75.000 TRY x 2 years =150.000 TRY	Economically active disadvantaged poor population; Commercial enterprises; Commercial entrepreneurs in the management plan area	"Turkish Employment Agency"; "Chamber of Commerce and Industry Diyarbakir Branch"; "Karacadag Development Agency"; "KOSGEB"	"Chamber of Merchants and Craftsmen Diyarbakir Branch"; "DMM Vocational Education Directorate"; "Diyarbakir Governorship Social Support Program"; "Turkish Employment Agency"; "KOSGEB"
Action 3.1.1.2: Conduct surveys to determine workforce demand for businesses in the arts and crafts, tourism and service sectors (tour guides, tour operators, hotel services, different types of arts and crafts such as copper mastery, carpentry, crafts, etc.) in the management plan area.				"Turkish Employment Agency"; "Chamber of Commerce and Industry Diyarbakir Branch"	"DMM Vocational Education Directorate"; "Chamber of Merchants and Craftsmen Diyarbakir Branch"; "DPD of Culture and Tourism"
Action 5.3.3.1: Conduct planning and design studies to develop a spatial implementation guideline for arts and crafts sales		250.000 TRY No budget explanation	No beneficiaries	"DPD of Culture and Tourism"; "Chamber of Architects Diyarbakir Branch";	"DMM Construction and Urbanization Directorate"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
areas at the main visitor routes and implement it.				"Chamber of Urban Planners Diyarbakir Branch"; "Karacadag Development Agency"; "Chamber of Merchants and Craftsmen Diyarbakir Branch"; "Chamber of Commerce and Industry Diyarbakir Branch"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	
Action 5.3.3.2: Conduct spatial arrangements in bazaars, streets, and khans where traditional craftsmanship activities such as throne building, ironworking, copper working, silk weaving etc. are carried out. Create areas where craftsmen can exhibit their production processes, within the cultural heritage structures in Surici traditional centre.		3.000.000 TRY No budget explanation	No beneficiaries	"Chamber of Architects Diyarbakir Branch"; "Chamber of Urban Planners Diyarbakir Branch"; "Karacadag Development Agency"; "Chamber of Merchants and Craftsmen Diyarbakir Branch"; "Chamber of Commerce and Industry Diyarbakir Branch"	"DMM Construction and Urbanization Directorate"; "DMM KUDEB Directorate"; "Regional Directorate of Foundations"
Action 3.2.1.4: Carry out widespread studies to support the participation of impoverished women residing in the management plan area in social and economic life.	SM, HM	989.500 TRY Conducting campaigns aiming awareness raising for participation of women in social and economic life, 4 times a year: 62.500 TRY, for 3 years: 187.500 TRY	Economically active woman population; Disadvantaged groups; Commercial enterprises; Commercial entrepreneurs in the management plan area	NGOs working on women; "Turkish Employment Agency"; "Karacadag Development Agency"	"DMM Social Services Directorate"; "Karacadag Development Agency"
Action 3.2.1.5: Create areas where women can produce and sell traditional handmade products to promote tourism		Constructing a fair hall with 20		NGOs working on women; "Turkish Employment Agency";	"DMM Social Services Directorate"; "Chamber of Merchants and Craftsmen"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
and enable their participation in economic life.		stands for women to produce and sell tourism oriented traditional and cultural handmade products: 50.000 TRY Expenses of the fair hall for the next 3 years: 144.000 TRY		"Karacadag Development Agency"	Diyarbakir Branch"
Action 5.1.1.4: Evaluate bastions having interior space adequate for public uses for local people, and social and cultural uses with intermittent use for visitors based on the Utilization plan for Bastions and their surroundings prepared by the DMM Site Management Unit, within the Integrated City Walls Restoration Program. Ensure these implementations are done following decisions of Regional Council of Conservation of Cultural Assets. Monitor the impact of the uses given to these bastions on their cultural value.	HM D Local Associations DMM Departments	Activity	No beneficiaries	"Diyarbakir Governorship Culture and Tourism Project Division"; "Diyarbakir Restoration and Conservation Regional Directorate"; "Chamber of Architects Diyarbakir Branch"; "DPD of Culture and Tourism"; "Diyarbakir Surveys and Monuments Directorate"; "DMM Women's Studies Center"; "Mesopotamia Youth Research Centre Association"; "City Council"; "Sur Municipality Construction and Urbanization Directorate"	"Regional Council of Conservation of Cultural Assets"; "DMM KUDEB Directorate"; "DMM Culture and Tourism Affairs Directorate"

Action 2.2.3.1 is a project action called “*Development and reinforcement of the tourism potential in the area*” with a budget of 770.000 TRY. Action 2.2.3.2 is another project action named “*Development of Local Organizations Project*” with a budget of 200.000 TRY. However, there is no connection between actors of these actions and the people with Disabilities focus group.

Action 2.3.1.3 is a part of a project called “*Reinforcement of Arts and Crafts Structure Project*” composed of four actions. The total budget of the project is 612.000 TRY whereas the budget of Action 2.3.1.3 is 72.000 TRY. Beneficiaries are craftsmen, young population, Diyarbakir residents who might be represented in the people with Disabilities focus group. However, consultants and implementers of the action have no connection with the community stakeholders.

Action 2.3.2.1 is a project action called “*Reinforcement of Crafts Marketing*” with a budget of 350.000 TRY, and Action 2.3.2.4 is another project action named “*Establishing sales areas for arts and crafts products in day trip destinations and hospitality*” with a budget of 500.000 TRY. Although beneficiaries of these actions are community stakeholders, there is no connection between beneficiaries and implementers or consultants. Action 3.1.1.1 and Action 3.1.1.2 are a part of a project composed of three actions called “*Transformation of economically active population into qualified workforce*” with a total budget of 1.462.000 TRY. Action 3.1.1.1 about transforming economically active population into qualified workforce via certification programs is assigned with a budget of 1.006.000 TRY whereas Action 3.1.1.2 about conducting surveys on workforce demand is budgeted 150.000 TRY. Beneficiaries of these actions include community stakeholders defined as economically active disadvantaged poor population which might also be included in the people with Disabilities focus group. Another connection between actors of Action 3.1.1.1 is that some of the consultants of the action are also implementers of the action, e.g., Turkish Employment Agency and KOSGEB.

Action 5.3.3.1 and Action 5.3.3.2 are actions with budget which means they are assigned to a budget, but beneficiaries are not stated and there is no explanation on how to use the assigned budget. Consultants of both actions contain professional chambers who might be counted as community representatives, but implementers are only municipality departments.

Interestingly, Action 3.2.1.4 and Action 3.2.1.5 addressing to the Issue 6.1 which is raised by non-community focus groups, have connections between focus group attendees and beneficiaries; focus group attendees and implementers; beneficiaries and consultants; and consultants and implementers. One can infer the disadvantaged groups as beneficiaries might be represented by the people with Disabilities focus group, even though it does not refer to specifically disabled people. However, any other actors defined as beneficiaries especially woman population in active working age in the management plan area have not even been present in the focus group who raises the issue. Besides, the issue is raised as the need for utilization of bastions to provide employment to local people, not specifically for women. There is no evident relation between consultants and community focus groups. Consultants includes NGOs working on women issues but not the ones working on disabled people. One of the beneficiaries of the actions is economically active women population, and one of the consultants of the actions is NGOs working on women. While this is a direct relationship, one can infer that beneficiaries are represented through NGOs.

For the Action 3.2.1.4 Karacadag Development Agency which is a regional institution is both consultant and implementer. On the other hand, DMM Social Services Directorate as one of the implementers of both actions were present in the people with Disabilities focus group meeting. One can infer that this DMM department is aware of the discussions in the focus group meetings and can transfer this knowledge during the implementation of the action. Both actions are a part of project composed of 5 actions and called “*Participation of women in social and economic life*” with a total budget of 989.500 TRY, from which 187.500 TRY is assigned for Action 3.2.1.4 and 194.000 TRY is assigned for Action 3.2.1.5 with an explanation of how it is going to be spent on. One can infer that implementation of these two actions most likely happens due to the connections between actors and the assigned budget.

The last management plan action, which address to the Issue 6.2 raised by community focus group is defined as an activity, that is why there is no budget or beneficiaries defined. There is no evidence of relation between community stakeholders from focus groups and consultants and/or implementers. Consultants are more related with heritage, women, and youth, while community focus group consists of associations working with disabled groups. Implementers are merely the governmental bodies working on heritage.

Table 78: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue Code	Action 2.2.3.1: Develop an implementation plan for the workforce based on an analysis of work experience and trends in different tourism themes.	Number of studies analysing the workforce in the tourism sector; Training needs analysis report
Issue Code	Action 2.2.3.2: Develop local cooperation for day trip destinations or hospitality.	Number of local tourism associations; Number of tourism enterprises who are members of local tourism associations
Issue Code	Action 2.3.1.3: Organise handcraft master programs for young generations.	Number of young people trained with handcrafts master programs; Report of the master program
Issue Code	Action 2.3.2.1: Constitute sale cooperatives for arts and crafts.	Number of arts-crafts branches with an established sales cooperative; Number of craftsmen member of sales cooperatives
Issue Code	Action 2.3.2.4: Create areas for arts and crafts sales in day trip destinations and hospitality.	Number of accommodation facilities in which arts-crafts sales units are created
Issue Code	Action 3.1.1.1: Apply policies to transform the economically active population, particularly impoverished population in the area, into active workforce in the tourism, service and agriculture sectors through professional skills and certification programs.	Number of people who have participated in professional skills certificate programs; Number of people who have participated in professional skills certificate programs and started to work in service, tourism and agriculture sectors
Issue Code	Action 3.1.1.2: Conduct surveys to determine workforce demand for businesses in the arts and crafts, tourism and service sectors (tour guides, tour operators, hotel services, different types of arts and crafts such as copper mastery, carpentry, crafts, etc.) in the management plan area.	Number of surveys and interviews carried out with the businesses from tourism, service and crafts sectors in the area; Sectoral distribution of the research
Issue Code	Action 5.3.3.1: Conduct planning and design studies to develop a spatial implementation guideline for arts and crafts sales areas at the main visitor routes and implement it.	Arts-crafts products sales areas spatial implementation guideline; Activities started in accordance with the planning studies and number of active sales areas whose spatial implementations are completed
Issue Code	Action 5.3.3.2: Conduct spatial arrangements in bazaars, streets, and khans where traditional craftsmanship activities such as throne building, ironworking, copper working, silk weaving etc. are carried out. Create areas where craftsmen can exhibit their production processes, within the cultural heritage structures in Surici traditional centre.	Number of cultural heritage structures arranged and utilised to include arts-crafts branches

Issue	Action	Output
Issue 6.1: During the rehabilitation and restoration works, new functions should be decided to increase local women's employment.	Action 3.2.1.4: Carry out widespread studies to support the participation of impoverished women residing in the management plan area in social and economic life.	Number of neighbourhoods and streets supported; Number of women participating in economic activities
	Action 3.2.1.5: Create areas where women can produce and sell traditional handmade products to promote tourism and enable their participation in economic life.	Number of spaces for women to produce and sell traditional-cultural handmade products; Number of women working in these spaces; Ratio of increase of the spaces that contribute to the participation of women to economic life in neighbourhoods
Issue 6.1: During the rehabilitation and restoration works, new functions should be decided to increase local women's employment.	Action 5.1.1.4: Evaluate bastions having interior space adequate for public uses for local people, and social and cultural uses with intermittent use for visitors based on the Utilization plan for Bastions and their surroundings prepared by the DMM Site Management Unit, within the Integrated City Walls Restoration Program. Ensure these implementations are done following decisions of Regional Council of Conservation of Cultural Assets. Monitor the impact of the uses given to these bastions on their cultural value.	Report on the number and quality of functions allocated to bastions with sufficient internal size; Impact analysis report on utilization of bastions

Issue 6.1 is raised by non-community focus groups, but it suggests increasing local employment in heritage sites, especially for local women. Issue 6.2 is a spatial request which asks for utilization of bastions to recruit local people raised by the people with Disabilities focus group. Both issue assertions are about increasing employment in situ by recruiting local people.

Actions addressing to the Issue Code 6. Employment in situ in general are proposing to analyse workforce demand and trends, and to create areas for new job opportunities; and aiming to establish local cooperatives, and to organise educational programmes for economically active population in the area. Therefore, these actions correspond to the request of community focus group because the people with Disabilities focus group did not specify the target group as themselves. In terms of research on workforce demand and trends, Action 2.2.3.1 about an analysis on workforce trends and Action 3.1.1.2 about an analysis on workforce demand are both not addressing to the issue assertions even though they are related with employment in the management plan area. Outputs of both actions are qualitative reports which might monitor the action but not referring to the issue assertions. Action 2.2.3.2 about developing local cooperatives for hospitality and Action 2.3.2.1 about establishing cooperatives for arts and crafts are not addressing to any issue assertions. However, one can infer that cooperatives might help to increase local employment. Outputs of these actions are the number of cooperatives and the number of their members which can follow-up the actions. Action 2.3.1.3, on the other hand is about providing educational programs for young generations, and its outputs are the number of young people trained and the report of the programmes. This action might contribute to the request of the community focus group but does not address to the issue assertions directly. Action 3.1.1.1 is also about providing educational support for economically active population and its outputs are the number of attendees

of these programmes and the number of the ones started to work. Outputs can monitor action's progress and they address to the issue assertion by indicating the number of people started to work.

Action 2.3.2.4 and Action 5.3.3.1 are about creating sales areas for local people to enable them to sell arts and crafts products. Action 5.3.3.2 is about showing off the traditional craftsmanship by spatial arrangements in heritage sites. Action 2.3.2.4 proposes to create sales areas in the hospitality facilities which is not the request of the community. Community requested to use the bastions which is a heritage site, to increase local employment. Action 5.3.3.1 and Action 5.3.3.2, on the other hand does not indicate bastions but they propose to facilitate heritage sites which might include bastions and city walls. Outputs of these actions are the number of sales areas created; one can infer that outputs can monitor the actions' progress.

Action 3.2.1.4 and Action 3.2.1.5 are specifically about the employment of local woman whereas Issue 6.1 suggests increasing local women's employment in heritage sites. Action 3.2.1.4 is about supporting the participation of women in economic life while Action 3.2.1.5 is about creating areas where local women can produce and sell traditional products. Outputs of the actions are quantitative; the number of sales areas and the number of women participated in economic activities.

Action 5.1.1.4 focuses on the allocation of bastions with different functions. The functions are not specified whereas allocating bastions is the suggestion of the community focus group. One can infer that one of these functions could be commercial spaces for local people to sell or produce traditional products or could be spaces for service sector to employ them. Only one output from Action 5.1.1.4 responds to the issue raised by community by requesting a report on the bastions which are given functions. However, the action has no assigned budget to enable the implementation of the action.

Issues raised in focus group meetings by the community stakeholders are partially transferred into management plan actions. However, the issues raised in 'Spatial Management' and 'Heritage Management' focus groups are directly transferred into Action 3.2.1.4 by supporting women participation in economic life and Action 3.2.1.5 by proposing establishment of workplaces for providing employment to women in the area. Action 3.1.1.1 is partially addressed by aiming to increase local employment rate and due to the connections between actors. Action 5.3.3.1 and Action 5.3.3.2 are also partially addressed to the issue by proposing spatial arrangements for arts and crafts activities which increases the local employment rate.

Table 79: Results for assessment of Issue Code 6 – Employment in situ

Level of Knowledge Transfer													
	Addressed		Partially addressed				Not addressed						
Issue	Issue 6.1						Issue 6.2						
Focus Group	HM, SM						D						
Action	Action 3.2.1.4	Action 3.2.1.5	Action 3.1.1.1	Action 5.3.3.1	Action 5.3.3.2	Action 5.1.1.4	Action 2.2.3.1	Action 2.2.3.2	Action 2.3.1.3	Action 2.3.2.1	Action 2.3.2.4	Action 3.1.1.2	
Budget	187.500 TRY	194.000 TRY	1.116.000 TRY	250.000 TRY	3.000.000 TRY	Activity	770.000 TRY	200.000 TRY	72.000 TRY	350.000 TRY	500.000 TRY	150.000 TRY	
Beneficiaries	Economically active woman population; Disadvantaged groups		Economically active disadvantaged poor population						Craftsmen; Economically active young people; Future generations in the management plan area; Diyarbakir residents		Craftsmen in the management plan area; Diyarbakir residents; Visitors	Economically active disadvantaged poor population	
Consultants	NGOs working on women; Karacadag Development Agency	NGOs working on women	Turkish Employment Agency, KOSGEB										
Implementers	Karacadag Development Agency		Turkish Employment Agency, KOSGEB										
Outputs	Quantitative		Quantitative	Qualitative	Quantitative	Qualitative	Qualitative	Quantitative	Qualitative	Quantitative	Quantitative	Quantitative	

Issue Code 10. Safety problems

Table 80 illustrates that issue assertions were raised by six different focus groups for Issue Code 10. Safety Problems. Four of them contain community representatives from the Women, the Children, the Youth, and the people with Disabilities focus groups, whereas the other two are non-community focus groups; the Heritage Management and the Spatial Management.

Table 80: Issue Code 10 – Safety Problems and associated Management Plan Actions

Focus Group Acronym and Issue Assertions	Management Plan Actions
W Y SM HM Issue 10.1: Drug dealing is a problem in the area both for children and tourists. Drug dealers occupy the abandoned buildings. Local people claim authorities and law enforcement are not sufficient.	Action 3.6.1.2: Place streetlights on main routes and public spaces used by visitors and residents as well as on transportation routes used to access these areas, take inspection and security precautions against possible crimes.
C Issue 10.2: Children are attracted to drug dealers and easily dragged into illegal activities because of the falsified perception of drug dealers.	No actions
W C Issue 10.3: Women want to move out of the area to protect their children from being involved in illegal activities or drug addiction.	No actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
D	Issue 10.4: Mentally disabled people are being benefited by drug dealing activities, this situation should be prevented and controlled by authorities.	No actions

Issues are mainly related with drug-dealing problems and illegal activities occurring in Surici area. Issue 10.1 raised by both community and non-community stakeholders is addressed by Action 3.6.1.2. Issue 10.2 about falsified perception of drug dealers between children, Issue 10.3 about the desire of moving out to protect children, and Issue 10.4 about the request of protecting mentally disabled people from drug dealing activities are not addressed by any management plan actions even though they are all raised by community stakeholders.

Table 81: Verifying connections for Action 3.6.1.2

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.6.1.2: Place streetlights on main routes and public spaces used by visitors and residents as well as on transportation routes used to access these areas, take inspection and security precautions against possible crimes.	W Local Associations DMM Departments GABB CATOM Y Local Associations DMM Departments	Activity	No beneficiaries	"DMM Constabulary Directorate"	"DMM Construction and Urbanization Directorate"; "DMM Transportation Directorate"

Beneficiaries are not stated for Action 3.6.1.2 since the action is defined as an activity in the management plan. Consultants and/or implementers do not include any of the community stakeholders even though the issue is raised by many community focus groups. Consultants and implementers are both from Diyarbakir Metropolitan Municipality departments. DMM Constabulary Directorate works on safety issues in the city whereas DMM Construction and Urbanization Directorate and DMM Transportation Directorate work on urban and transportation planning.

Table 82: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 10.1: Drug dealing is a problem in the area both for children and tourists. Drug dealers occupy the abandoned buildings. Local people claim authorities and law enforcement are not sufficient.	Action 3.6.1.2: Place streetlights on main routes and public spaces used by visitors and residents as well as on transportation routes used to access these areas, take inspection and security precautions against possible crimes.	Number of public spaces with lightning; Crime ratio in the management plan area

Action 3.6.1.2 is oversimplified as a solution of placing streetlights for safety problems and what type of security precautions will be taken against possible crimes is not clear. Corresponding output of the provision of streetlights is the number of spaces that are lightened. It is not clear which parts of the area is problematic and where the streetlights are going to be provided. In response to the ensuring safety by taking precautions for possible crimes, the output is straightforward as the crime ratio in the management plan area.

There is indirect relation between the outputs and the issue. While the Issue 10.1 is about drug-dealing and unsafe environment, one of the outputs is about enlightening public spaces and the other is the crime ratio in the area. This leads to the understanding of dark streets are the places of the illegal activities but community states that abandoned spaces are problematic. Qualitative outputs do not reveal much how to monitor the action, but it adverts to one aspect of the issue.

Table 83 shows that Issue 10.1 is partially addressed in the management plan action, since providing streetlights and taking precautions for illegal activities are not clearly defined to enable implementers to implement the action. Besides, there is no connection with community at all because beneficiaries are not stated for Action 3.6.1.2.

Table 83: Results for assessment of Issue Code 10 – Safety problems

Level of Knowledge Transfer					
	Addressed	Partially addressed	Not addressed		
Issue		Issue 10.1	Issue 10.2	Issue 10.3	Issue 10.4
Focus Group		W, Y	C	W, C	D
Action		Action 3.6.1.2			
Budget		Activity			
Beneficiaries					
Consultants					
Implementers					
Outputs		Quantitative			

Issue Code 12. Social Services

Table 84 illustrates that issue assertions for Issue Code 12. Social Services were raised by four different community focus groups; the Women, the Children, the Youth, and the people with Disabilities. However, actions are absent to address the Issue Code 12. Social Services.

Table 84: Issue Code 12 – Social Services and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
W	Issue 12.1: Social services are not provided adequately and properly by the government to the local people.	No actions
C	Issue 12.2: NGOs working in the area are not enough and not having proper organizational structure.	
Y	Issue 12.3: Young people with criminal records are not allowed to access social services. There is a lack of social services for rehabilitation of criminal youth.	
D	Issue 12.4: Disabled people are not supported by social services, despite it being a source of government benefit. There is a request for establishing support centres for disabled people.	
D	Issue 12.5: Families of disabled people need education on the importance of rehabilitation and education for their disable members.	

Issue 12.1 raised by the Women focus group, Issue 12.2 raised by the Children focus group, Issue 12.3 raised by the Youth focus group and Issue 12.4 raised by the people with Disabilities focus group are all about lack of social services and articulates that each community focus group suffer from inadequate social services. On the other hand, Issue 12.5 complains about the lack of knowledge and experience about living with disabled family members and stresses the need of education on that matter (Table 84).

Issue Code 14. Women Solidarity

Table 85 illustrates that issue assertions for Issue Code 14. Women Solidarity were raised by three different focus groups; one of them is from community focus groups; the Women, and the other two of them are from non-community focus groups; the Spatial Management and the Heritage Management.

Table 85: Issue Code 14 – Women Solidarity and Associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
W SM HM	Issue 14.1: The only social activity for women is neighbourly relations. They cope with difficulties through this solidarity network and care about the social relations they developed in the neighbourhood.	Action 3.2.1.1: Support projects that raise awareness on the participation of women in social and public life with regards to economic, social, and cultural importance.
		Action 3.2.1.2: Organise awareness raising campaigns and projects on women residents' participation in social and economic life for the benefit of development, society, city, and future generations.
		Action 3.2.1.3: Organise activities in the outer neighbourhoods of the management plan area to raise awareness on the importance and need for women to participate in social and economic life.

Issue 14.1 is addressed by Action 3.2.1.1, Action 3.2.1.2, and Action 3.2.1.3.

Table 86: Verifying connections for Action 3.2.1.1, Action 3.2.1.2, and Action 3.2.1.3

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.2.1.1: Support projects that raise awareness on the participation of women in social and public life with regards to economic, social, and cultural importance.	W Local Associations DMM Departments GABB CATOM	989.500 TRY Conducting campaigns aiming awareness raising for participation of women in social and economic life in the surrounding neighbourhoods of the management plan area, 4 times a year, for 3 years:	Economically active woman population, disadvantaged groups, commercial enterprises, and entrepreneurs in the management plan area	NGOs working on women; "Karacadag Development Agency"; "Chamber of Merchants and Craftsmen Diyarbakir Branch"; "DMM Vocational Education Directorate"	"DMM Social Services Directorate"
Action 3.2.1.2: Organise awareness raising campaigns and projects on women residents' participation in social and economic life for the benefit of development, society, city, and future generations.		108.000 TRY Detecting the poorest two neighbourhoods and conducting studies to support the participation of women residing in these two neighbourhoods and vocational trainings for them:		NGOs working on women; "Karacadag Development Agency"	
Action 3.2.1.3: Organise activities in the outer neighbourhoods of the management plan area to raise awareness on the importance and need for women to participate in social and economic life.		500.000 TRY			

All the actions are a part of the project called "*Participation of women in social and economic life*" and total budget of this project is 989.500 TRY. Action 3.2.1.3 is budgeted 108.000 TRY to conduct campaigns on awareness raising about the participation of women in social, economic, and cultural life in the outer neighbourhoods of the management plan area. On the other hand, Action 3.2.1.1 and Action 3.2.1.2 aims to support women and a budget of 500.000 TRY is assigned to them. Beneficiaries of all actions include economically active women population and disadvantaged groups who might be represented by local associations participated in the Women focus group meeting. Consultants of all actions comprise NGOs working on women which might be the ones in the focus group meetings. Besides, one can infer that not naming allows a broader participation by NGOs. Implementer of all actions is a Diyarbakir Metropolitan Municipality department but there is no solid evidence of connection between implementer and focus group participants.

Table 87: Issue assertions from focus groups with corresponding actions and outputs

Issue assertions	Action	Output
Issue 14.1: The only social activity for women is neighbourly relations. They cope with difficulties through this solidarity network and care about the social relations they developed in the neighbourhood.	Action 3.2.1.1: Support projects that raise awareness on the participation of women in social and public life with regards to economic, social, and cultural importance.	Number of activities to increase the awareness for participation of women in social life; Number of women who participated in the activities
	Action 3.2.1.2: Organise awareness raising campaigns and projects on women residents' participation in social and economic life for the benefit of development, society, city, and future generations.	Number of neighbourhoods with ongoing awareness raising activities; Number of women who participated in awareness raising activities; Percentage of the increase in the participation of women and disabled in the social and economic life after participating awareness raising activities
	Action 3.2.1.3: Organise activities in the outer neighbourhoods of the management plan area to raise awareness on the importance and need for women to participate in social and economic life.	Number of the neighbourhoods and streets worked on; Number of women who participated in the awareness raising activities

Issue 14.1 is about the social network created by women residing in the area and its importance for women in their social life. Actions referring to this issue are about supporting women and raising their awareness on their role in the society. Action 3.2.1.1 aims to support awareness raising projects, and its outputs are the number activities and the number of women participated in these activities. One can infer that outputs technically can monitor the action. Action 3.2.1.2 and Action 3.2.1.3 aims to conduct awareness raising activities especially for the resident women in the area and outputs are the number of activities and the number of women participated in those activities. One can monitor the action by these quantitative outputs. Issue assertion raised in the focus group meeting by the community stakeholders is partially addressed by the management plan actions. Assigned budget and defined beneficiaries and consultants from community stakeholders refers that the implementation of the actions likely happens.

Table 88: Results for assessment of Issue Code 14 – Women Solidarity

Level of Knowledge Transfer					
	Addressed	Partially addressed			Not addressed
Issue		Issue 14.1			
Focus Group		W			
Action		Action 3.2.1.1	Action 3.2.1.2	Action 3.2.1.3	
Budget		500.000 TRY		108.000 TRY	
Beneficiaries		Economically active woman population, disadvantaged groups			
Consultants		NGOs working on women			
Implementers					
Outputs		Quantitative			

B. Hevsel Gardens and Tigris Valley

Issues for the Hevsel Gardens and Tigris Valley were raised by all community stakeholders from focus groups meetings, with the majority coming from the Hevsel Gardens focus group. They were grouped into three families and related to the public use of the Hevsel Gardens and the Tigris Valley, agriculture in the Hevsel Gardens, and the management of the Hevsel Gardens.

B.1. Issue Family 4: Public Use

The fourth family includes issues related to ‘Public Facilities’ and ‘Unregistered Activities’. They mainly referred to the public use of the Tigris River coastal area and the request for public facilities in the Tigris Valley. These issues were raised by all the community focus groups.

Issue Code 19. Public Facilities

Table 89 illustrates that issue assertions for Issue Code 19. Public Facilities were raised by six different focus groups; all community focus groups except the Youth focus group, and the Spatial Management and the Intangible Cultural Heritage focus groups.

Table 89: Issue Code 19 – Public Facilities and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
C	Issue 19.1: A camp area with sports facilities and a swimming pool is requested.	Action 4.1.1.3: Examine national and international best practices for the ‘Camping Tourism’ theme, exploit the camping tourism potential of the management plan area, structure competitive power, and develop projects that define principles and standards to specify bearing capacity.
ICH	Issue 19.2: More public facilities such as sports centres and cultural centres would increase the use of the Tigris Valley.	No actions
HG	Issue 19.3: Hevsel gardens and the Tigris River shoreline should be designed as a public space for all people in the city.	No actions
W SM	Issue 19.4: Hevsel Gardens are the only recreation area for local people to get fresh air and socialise.	No actions
D	Issue 19.5: Areas for outdoor sports and sports facilities are requested by disabled group.	No actions
ICH	Issue 19.6: The history of Hevsel Gardens as a recreation or public area has been lost. Increasing commercial activities damages Hevsel Gardens’ intangible cultural heritage.	No actions

Action 4.1.1.3 is associated with the Issue 19.1 raised by the Children focus group, whereas the rest of the issue assertions are not associated with any management plan actions. Issue 19.2 and Issue 19.3 suggests increasing the use of Tigris Valley and shoreline by designing it as a public space and providing more public facilities. In Issue 19.4, Hevsel Gardens are stated as the only place to socialize for local people by the Women community focus group. On the other hand, Issue 19.5 raised by the people with Disabilities community focus group requests outdoor sport facilities in Hevsel Gardens. However, actions are absent to

address these issues raised by the Women, the Hevsel Gardens, and the people with Disabilities community focus groups.

Table 90: Verifying connections for Action 4.1.1.3

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 4.1.1.3: Examine national and international best practices for the 'Camping Tourism' theme, exploit the camping tourism potential of the management plan area, structure competitive power, and develop projects that define principles and standards to specify bearing capacity.	C Local Associations; DMM Departments; GABB; CATOM	2.289.000 TRY Preparation of implementation guide for each tourism theme and sharing with all relevant institutions, organizations and entrepreneurs: 150.000 TRY per tourism theme Advertisement and promotion costs for camping tourism: 179.000 TRY	Visitors; Users; Residents; Tourism entrepreneurs; Tourism organizations	"TMMOB Diyarbakir Provincial Coordination Board"; "Karacadag Development Agency"; Youth NGOs	"DMM Construction and Urbanization Directorate"; "DMM Culture and Tourism Affairs Directorate"; "DPD of Culture and Tourism"

Action 4.1.1.3 is a part of a project called "*Developing Tourism Implementation Guides*" which aims to reveal the tourism potential of the area based on different themes, whereas Action 4.1.1.3 aims to reveal the camping tourism potential of the management plan area. It refers to the request of a camp area with facilities by the Children focus group. The total budget of the project is 2.289.000 TRY, however, the budget of this action is 329.000 TRY; 150.000 TRY for the preparation of the implementation guide and its distribution, while 179.000 TRY for the camping tourism project itself.

Beneficiaries of the project include visitors, users and residents who are partially represented in the Children focus group. Other beneficiaries are the entrepreneurs and organizations working in the tourism sector, who are not represented in the Children focus group. On the other hand, consultants include Youth NGOs who might be represented in the Children focus group, despite not being clear which NGOs are included or who is going to decide which one to consult. The decision of not naming stakeholders directly can be twofold: on one hand it can be considered inclusive, offering the possibility to invite any relevant association to be consulted, but on the other hand offers no contractual guarantee the stakeholders consulted in focus groups are going to be listened.

Implementers of Action 4.1.1.3 are either local government or local branches of central government; but there is no connection between the community focus group and the implementers.

Table 91: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 19.1: A camp area with sports facilities and a swimming pool is requested.	Action 4.1.1.3: Examine national and international best practices for the 'Camping Tourism' theme, exploit the camping tourism potential of the management plan area, structure competitive power, and develop projects that define principles and standards to specify bearing capacity.	Size of Camping Tourism area that has started activity; Number of visitors of these Camping Tourism areas

Issue 19.1 raised by the Children focus group is a request about a camping area with sport facilities and a swimming pool. Action 4.1.1.3 offers to create an implementation guide on camping tourism based on the examination of national and international best practices. Outputs of the action are quantitative measures, namely, size of the camping tourism area and the number of its visitors. One can monitor the implementation of the action by looking at the size of the camping area and the number of visitors it has, but cannot say that the community's request is fulfilled, since the size does not indicate which services are provided.

In conclusion, Issue 19.1 is partially translated into Action 4.1.1.3 with an assigned budget and consultants include NGOs representing youth as the community stakeholders, even though they are not particularly named. One can infer that the implementation of this action is most likely.

Table 92: Results for assessment of Issue Code 19 – Public Facilities

Level of Knowledge Transfer							
	Addressed	Partially addressed	Not addressed				
Issue		Issue 19.1	Issue 19.2	Issue 19.3	Issue 19.4	Issue 19.5	Issue 19.6
Focus Group		C	ICH	HG	W, SM	D	ICH
Action		Action 4.1.1.3					
Budget		329.000 TRY					
Beneficiaries		Visitors, users, residents					
Consultants		Youth NGOs					
Implementers							
Outputs		Quantitative					

Issue Code 24. Unregistered Activities

Table 93 illustrates that issue assertions were raised by five different focus groups for Issue Code 24. Unregistered Activities. Two of them contain community representatives from the Youth and the Hevsel Gardens focus groups whereas the other three contain representatives from the Intangible Cultural Heritage, the Heritage Management, and the Spatial Management focus groups.

Table 93: Issue Code 24 – Unregistered Activities and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
ICH SM	Issue 24.1: Unregistered commercial activities along Tigris River prevent its public use and exclude local people from the area.	Action 3.5.1.1: Identify illegal activities in the cultural heritage structures which are in the heritage site, stop them and investigate their damage in cultural heritage assets, provide repair and maintenance when necessary.
Y	Issue 24.2: Commercial activities along Tigris River jeopardise the current recreation and social activities of young people.	Action 3.5.1.2: Conduct precautionary inspections in the cultural heritage structures, in the heritage site, detect and stop illegal activities in them.
		Action 5.1.4.5: Identify social, spatial, economic, and environmental factors that may create pressure on the natural and cultural heritage, conduct impact analyses, record, monitor, supervise, and stop any activities with a negative outcome.
HG HM	Issue 24.3: Unregistered activities close to the Ten-Eyed Bridge damage the unity of the Hevsel Gardens and the Tigris Valley.	Action 5.1.4.13: Prohibit all sorts of shoreline configurations which disrupt the natural structure and natural landscape such as excavation disposals, sand intakes or fillings and other commercial activities which deform the existing topographic structure of the area.
		Action 5.2.2.6: Assess the east side of Tigris River as natural park, decrease the number of users, and prevent harmful uses to natural life.

Action 3.5.1.1 is associated with Issue 24.1 raised by non-community focus groups, while Action 3.5.1.2 and Action 5.1.4.5 correspond Issue 24.2, raised by community focus groups. On the other hand, Action 5.1.4.13 and Action 5.2.2.6 are associated with Issue 24.3, raised by both community and non-community focus groups.

Table 94: Verifying connections for Action 3.5.1.1-2, Action 5.1.4.5, Action 5.1.4.13, and Action 5.2.2.6

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.5.1.1: Identify illegal activities in the cultural heritage structures which are in the heritage site, stop them and investigate their damage in cultural heritage assets, provide repair and maintenance when necessary.	ICH SM	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"	"Regional Council of Conservation of Cultural Assets"; "DMM Construction Affairs Directorate"; "DMM KUDEB Directorate"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.5.1.2: Conduct precautionary inspections in the cultural heritage structures, in the heritage site, detect and stop illegal activities in them.	Y Local Associations DMM Departments	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"	"Regional Council of Conservation of Cultural Assets"; "DMM Construction Affairs Directorate"; "DMM KUDEB Directorate"
Action 5.1.4.5: Identify social, spatial, economic, and environmental factors that may create pressure on the natural and cultural heritage, conduct impact analyses, record, monitor, supervise, and stop any activities with a negative outcome.		Activity	No beneficiaries	"DMM Parks, Gardens and Green Areas Directorate"; "Dicle University"; Relevant departments of the Ministry of Agriculture and Forestry	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"
Action 5.1.4.13: Prohibit all sorts of shoreline configurations which disrupt the natural structure and natural landscape such as excavation disposals, sand intakes or fillings and other commercial activities which deform the existing topographic structure of the area.	HM HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry;	Activity	No beneficiaries	"DMM Parks, Gardens and Green Areas Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"; "Dicle University"; "Relevant departments of Diyarbakir Governorship"	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"; "DPD of Environment and Urbanization"
Action 5.2.2.6: Assess the east side of Tigris River as natural park, decrease the number of users, and prevent harmful uses to natural life.	Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	Activity	No beneficiaries	"DMM KUDEB Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"; "Mesopotamia Ecology Movement"; "City Council"	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"; "Dicle University"; "DPD of Environment and Urbanization"; "Yenisehir Municipality Construction and Urbanization Directorate"

All the actions are defined as an activity in the management plan, that's why there is no budget assigned and the beneficiaries are not defined for any of the actions. For the first three actions there is no connection between community focus groups and consultants or implementers. However, Dicle University as a

consultant for Action 5.1.4.13 and as an implementer of Action 5.2.2.6 can be related with the Agriculture Faculty of Dicle University who attended the Hevsel Gardens community focus group. Even though Dicle University composing an institution with many departments, faculties, schools, and centres, one can expect that the related body would be informed by the Faculty of Agriculture on the discussions of the Hevsel Gardens focus group. However, there is no contractual guarantee or a pronounced statement in the management plan.

Table 95: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 24.1: Unregistered commercial activities along Tigris River prevent its public use and exclude local people from the area.	Action 3.5.1.1: Identify illegal activities in the cultural heritage structures which are in the heritage site, stop them and investigate their damage in cultural heritage assets, provide repair and maintenance when necessary.	Number of heritage structures in which illegal activities are stopped
Issue 24.2: Commercial activities along Tigris River jeopardise the current recreation and social activities of young people.	Action 3.5.1.2: Conduct precautionary inspections in the cultural heritage structures, in the heritage site, detect and stop illegal activities in them.	Number of precautionary inspections and reports; Number of illegal activities detected and stopped
	Action 5.1.4.5: Identify social, spatial, economic, and environmental factors that may create pressure on the natural and cultural heritage, conduct impact analyses, record, monitor, supervise, and stop any activities with a negative outcome.	Number of experts based at the Natural and Cultural Assets Inspection Committee; 6 monthly periodical inspection reports
Issue 24.3: Unregistered activities close to the Ten-Eyed Bridge damage the unity of the Hevsel Gardens and the Tigris Valley.	Action 5.1.4.13: Prohibit all sorts of shoreline configurations which disrupt the natural structure and natural landscape such as excavation disposals, sand intakes or fillings and other commercial activities which deform the existing topographic structure of the area.	Acreage of the area with disrupted natural structure and natural landscape within the management plan area; Illegal excavation disposals detection reports; Within the shoreline arrangements, prohibited commercial activities report
	Action 5.2.2.6: Assess the east side of Tigris River as natural park, decrease the number of users, and prevent harmful uses to natural life.	Number of the users; Annual reports of natural life monitoring

Issues are about the use of Tigris River shoreline and Issue 24.1 and Issue 24.2 are about the prevention of public use and social activities of local community due to commercial and unregistered activities, whereas Issue 24.3 is about the damage to the natural unity of Hevsel Gardens and Tigris Valley.

Issue 24.2 is raised by the Youth community focus group who states that commercial activities prevent them to use the shoreline for recreation and social purposes. Actions address to this issue assertion are about controlling and stopping either illegal activities or inspecting their impact on cultural heritage. Action 3.5.1.2 aims to detect the illegal activities happening in the cultural heritage structures. Its outputs are the number of inspections and the number illegal activities stopped. One can infer that the outputs can monitor the progress of the action through the quantitative and qualitative indicators; however, they do not address to the focus group's statement.

Issue 24.3 is raised by Hevsel Gardens community focus group states that the unity of Hevsel Gardens and Tigris Valley is under threat due to unregistered activities close to the Ten-Eyed Bridge. Action 5.1.4.13 and Action 5.2.2.6 are addressing to this issue assertion by proposing, respectively, a prohibition policy for unregistered and harmful activities and a protection policy for the east side of the Tigris River. Outputs of the Action 5.1.4.13 are acreage of the disrupted area, illegal excavation disposals detection reports and prohibited commercial activities report which can monitor the action firstly by detecting the disrupted area and then by announcing the prohibited activities stated in the issue assertion. Outputs of the Action 5.2.2.6, on the other hand, are the number of users and the natural life monitoring reports which can monitor the use of the area and the natural life inhabiting in the area. However, Issue 24.3 is about the unregistered activities instead of the users, therefore these outputs are not addressing to the issue assertion.

Table 96 shows that Issue 24.3 is partially addressed in the management plan actions, since the actions and their outputs are addressing to the issue assertion. But there is no connection with community at all because beneficiaries are not stated for any of the actions. Issue 24.2 is not transferred to the management plan actions because Action 3.5.1.2 and Action 5.1.4.5 are addressing to the impact of commercial activities along Tigris River, but they do not address to the social and recreational activities of young people. Besides, there is no connection between community and management plan actors.

Table 96: Results for assessment of Issue Code 24 – Unregistered Activities

Level of Knowledge Transfer						
	Addressed	Partially addressed		Not addressed		
Issue		Issue 24.3		Issue 24.1	Issue 24.2	
Focus Group		HG, HM		ICH, SM	Y	
Action		Action 5.1.4.13	Action 5.2.2.6	Action 3.5.1.1	Action 3.5.1.2	Action 5.1.4.5
Budget		Activity	Activity	Activity	Activity	Activity
Beneficiaries						
Consultants		Dicle University				
Implementers			Dicle University			
Outputs		Quantitative and qualitative		Quantitative	Quantitative and qualitative	

B.2. Issue Family 5: Agriculture

Issues related to the agriculture in Hevsel Gardens, the fifth family were all raised by the Hevsel Gardens focus group, with only the ‘Ecological Agriculture’ issue code also raised by the Youth focus group. Issue codes from this family are ‘Ecological Agriculture’, ‘Irrigation Systems’, ‘Support for producers’, ‘Soil Pollution’, and ‘Water Pollution’, all of them aimed for a solution or an improvement to current agricultural activities.

Issue Code 16. Ecological Agriculture

Table 97 illustrates that issue assertions for Issue Code 16. Ecological Agriculture were raised by two community focus groups; the Youth and the Hevsel Gardens.

Table 97: Issue Code 16 – Ecological Agriculture and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
Y	Issue 16.1: Ecological agriculture activities can support young population to get involved in agricultural activities. Practice-based education on ecological agriculture activities and cooperatives may help.	Action 5.3.2.1: Prepare and implement the “Tigris Valley Eco-Tourism Area Spatial Plan” in which day trip destinations, camp areas, and summer schools with ecological balance and biological diversity themes are specified.
HG	Issue 16.2: Studies should be done by universities to re-produce endangered products such as sand peach and sand watermelon.	Action 2.1.1.7: Conduct R&D work towards breeding of authentic products like sand peach, sand watermelon which face extinction.
		Action 3.4.2.7: Preserve seeds of all cultivated products in Hevsel Gardens.
HG	Issue 16.3: Ecological agriculture activities can be promoted by eco-tourism and other activities such as allotment gardens.	Action 2.2.1.2: Assign Ecotourism Thematic Area(s) and develop the Ecotourism Implementation Handbook.
		Action 2.2.1.3: Assign Agritourism Thematic Area(s) and develop the Agritourism Implementation Handbook.
		Action 4.1.1.1: Examine national and international best practices in Ecotourism, promote the ecotourism potential of the management plan area, develop projects to define principles and standards related to bearing capacity.
		Action 4.1.1.2: Examine national and international best practices in Agritourism, promote the Agritourism potential of the management plan area, structure competitive power and develop projects that define principles and standards related to bearing capacity.
		Action 5.1.4.3: Support ecotourism activities that bring together the natural values of the area.
		Action 5.2.3.1: Ensure all types of activities are conducted based on an ecological city guide prepared for the management plan area.
		Action 5.3.2.3: Prepare and implement the Hevsel Gardens Agritourism Spatial Plan by restructuring ruined mills and similar cultural heritage elements.
		Action 5.5.1.1: Create the elements of the ecologic balance and biodiversity presentation theme for the Tigris Valley Presentation Node, delineate borders and routes, prepare and implement urban design and architectural projects.
		Action 5.5.1.7: Create the elements of the agricultural activities, ecologic production practices and intangible cultural heritage presentation theme for the Hevsel Gardens Presentation Node, delineate borders and routes, prepare and implement urban design and architectural projects.

Issue 16.1 is addressed by Action 5.3.2.1, whereas Issue 16.2 is addressed by Action 2.1.1.7 and Action 3.4.2.7. On the other hand, Issue 16.3 is addressed by nine management plan actions which are Action 2.2.1.2, Action 2.2.1.3, Action 4.1.1.1, Action 4.1.1.2, Action 5.1.4.3, Action 5.2.3.1, Action 5.3.2.3, Action 5.5.1.1, and Action 5.5.1.7.

Table 98: Verifying connections for Action 5.3.2.1, Action 2.1.1.7, Action 3.4.2.7, Action 2.2.1.2-3, Action 4.1.1.1-2, Action 5.1.4.3, Action 5.2.3.1, Action 5.3.2.3, Action 5.5.1.1, and Action 5.5.1.7

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.3.2.1: Preparing and implementing the "Tigris Valley Eco-Tourism Area Spatial Plan" in which day trip destinations, camp areas, and summer schools with ecological balance and biological diversity themes are specified.	Y Local Associations; DMM Departments	2.000.000 TRY No budget explanation	No beneficiaries	"DMM Environmental Protection and Development Directorate"; "Chamber of Architects Diyarbakir Branch"; "Chamber of Landscape Architects"; "Chamber of Urban Planners Diyarbakir Branch"; "Karacadag Development Agency"	"DMM Construction and Urbanization Directorate"; "DPD of Culture and Tourism"; "DPD of Environment and Urbanization"
Action 2.1.1.7: Conducting R&D work towards breeding of authentic products like sand peach, sand watermelon which face extinction.	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture;	350.000 TRY Based on the average budget of similar projects by DPD of Agriculture and Forestry, the budget of the action is assumed as 350.000 TRY.	Hevsel Gardens' producers; Hevsel Gardens' consumers	"Southeastern Anatolia Project Regional Development Administration"; "Karacadag Development Agency"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"	"Dicle University Faculty of Agriculture"; "Dicle University Center for Environmental Studies"; "DPD of Agriculture and Forestry"
Action 3.4.2.7: Preserving seeds of all cultivated products in Hevsel Gardens.	University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	1.055.000 TRY Conducting studies to preserve the seeds of all products growing in Hevsel Gardens: 300.000 TRY	Institutions and organizations in urban planning realm; Commercial enterprises; Tourism enterprises	"Mesopotamia Ecology Movement"; Women Organizations; GABB; "Diyarbakir Metropolitan Municipality"	"Dicle University"; "DPD of Agriculture and Forestry"
Action 2.2.1.2: Assigning Ecotourism Thematic Area(s) and developing the Ecotourism Implementation Handbook.	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry;	200.000 TRY Based on the Iller Bank 2013 master plan preparation price list, 200.000 TRY is attained for developing the Ecotourism Implementation Handbook. It includes expenses of field studies,	Institutions; Organizations working on tourism and urban planning in the management plan area	"Dicle University Department of Biology"; "DPD of Environment and Urbanization"; "DMM Construction and Urbanization Directorate"; "Southeastern Anatolia Project Regional Development Administration"; "Chamber of Commerce and	"DPD of Culture and Tourism"; "DMM Culture and Tourism Affairs Directorate"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
	Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	expertise costs, travel and accommodation costs and stationary costs.		Industry Diyarbakir Branch"	
Action 2.2.1.3: Assigning Agritourism Thematic Area(s) and developing the Agritourism Implementation Handbook.		200.000 TRY Based on the Iller Bank 2013 master plan preparation price list, 200.000 TRY is attained for developing the Agritourism Implementation Handbook including expenses of field studies, expertise, travel accommodation and stationary costs.	Institutions; Organizations working on tourism and urban planning in the management plan area	"DPD of Agriculture and Forestry"; "DPD of Environment and Urbanization"; "DMM Construction and Urbanization Directorate"; "Southeastern Anatolia Project Regional Development Administration"; "Chamber of Commerce and Industry Diyarbakir Branch"	"DPD of Culture and Tourism"; "DMM Culture and Tourism Affairs Directorate"
Action 4.1.1.1: Examining national and international best practices in Ecotourism, exploiting the ecotourism potential of the management plan area, developing projects to define principles and standards to determine bearing capacity.		2.289.000 TRY Preparation of implementation guide for each tourism theme and sharing with all relevant institutions, organizations and entrepreneurs: 150.000 TRY per tourism theme for the preparation of implementation guides. Advertisement and promotion costs: Eco-tourism: 183.000 TRY Agritourism: 183.000 TRY	Visitors; Users; Residents; Tourism entrepreneurs; Tourism organizations	"TMMOB Diyarbakir Provincial Coordination Board"; "Karacadag Development Agency"; "Mesopotamia Ecology Movement"	"DMM Construction and Urbanization Directorate"; "DMM Culture and Tourism Affairs Directorate"; "DPD of Culture and Tourism"; "DPD of Agriculture and Forestry"
Action 4.1.1.2: Examining national and international best practices in Agritourism, promoting the Agritourism potential of the management plan area, structuring competitive power and developing projects that define principles and standards related to bearing capacity.					
Action 5.1.4.3: Supporting ecotourism activities that bring together the natural values of the area.			Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
				Development Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"; "Mesopotamia Ecology Movement"; "DMM Parks, Gardens and Green Areas Directorate"	"Dicle University"
Action 5.2.3.1: Ensuring all types of activities are conducted based on an ecological city guide prepared for the management plan area.		250.000 TRY Based on the Iller Bank 2013 master plan preparation price list, 250.000 TRY is attained for the Ecological City Guide consisting 10 experts.	Users; Institutions; NGOs; Enterprises; Investors; Entrepreneurs in the management plan area	"TMMOB Diyarbakir Provincial Coordination Board"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "Mesopotamia Ecology Movement"; "City Council"; "Dicle University"; "Karacadag Development Agency"	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"; "DPD of Environment and Urbanization"
Action 5.3.2.3: Preparing and implementing the "Hevsel Gardens Agritourism Spatial Plan" by restructuring ruined mills and similar cultural heritage elements.		2.000.000 TRY	No beneficiaries	"Chamber of Architects Diyarbakir Branch"; "Chamber of Urban Planners Diyarbakir Branch"; "Karacadag Development Agency"; "Dicle University"	"DMM Construction and Urbanization Directorate"; "DPD of Culture and Tourism"; "DPD of Agriculture and Forestry"; "DPD of Environment and Urbanization"
Action 5.5.1.1: Creating the elements of the 'ecologic balance and biodiversity presentation' theme for the "Tigris Valley Presentation Node", delineating borders and routes, preparing and implementing urban design and		2.500.000 TRY	No beneficiaries	"Sur Municipality"; "Yenisehir Municipality"; "Chamber of Merchants and Craftsmen"; "Chamber of Commerce and Industry Diyarbakir Branch"; Relevant NGOs;	"DMM Construction and Urbanization Directorate"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
architecture projects.				"TMMOB Diyarbakir Provincial Coordination Board"; "Dicle University"; "Mesopotamia Ecology Movement"	
Action 5.5.1.7: Creating the elements of the 'agricultural activities, ecologic production practices and intangible cultural heritage presentation' theme for the "Hevsel Gardens Presentation Node", delineating borders and routes, preparing and implementing urban design and architecture projects.		3.500.000 TRY	No beneficiaries	"Sur Municipality"; "Yenisehir Municipality"; "Chamber of Merchants and Craftsmen"; "Chamber of Commerce and Industry Diyarbakir Branch"; Relevant NGOs; "TMMOB Diyarbakir Provincial Coordination Board"; "Dicle University"; "DPD of Agriculture and Forestry"	"DMM Construction and Urbanization Directorate"

Action 5.3.2.1 is an action with budget, that is why no beneficiaries is defined for the action. Its budget is 2.000.000 TRY but there is no connection between community focus group and consultants or implementers. Action 2.1.1.7 is a project called "*Re-production of authentic products*" and budgeted 350.000 TRY. Its beneficiaries are Hevsel Gardens' producers and consumers who are participated in the focus group meeting as farmers and Sarmasik Association representatives. Consultants of the action are not involved in the Hevsel Gardens focus group and beneficiaries or implementers of the action. However, two implementers of the action are participated in the focus group meetings who are Dicle University Agriculture Faculty and Diyarbakir Provincial Directorate of Agriculture and Forestry. Connection between community stakeholders, and beneficiaries and implementers of the action indicates that the action is most likely going to be implemented.

Action 3.4.2.7 is a part of a project called "*Environmental Risks Caused by Agricultural Activities*" composed of 7 actions. The total budget of the project is 1.055.000 TRY in which Action 3.4.2.7 is budgeted 300.000 TRY to conduct studies to preserve the seeds of all products growing in Hevsel Gardens. Beneficiaries of the action are stated as urban planning institutions and organizations and tourism and commercial enterprises. Any of them are not in the Hevsel Gardens community focus group. However, one of the consultants is women organizations which can be associated with Sarmasik Association who was working on poverty, solidarity, and disadvantages groups. Besides, implementers of the action are DPD of Agriculture and Forestry and Dicle University, former is one of the attendees of Hevsel Gardens focus group, and latter can be related with the Agriculture Faculty of Dicle University who attended the Hevsel Gardens community focus group. Even though Dicle University composing an institution with many departments, faculties, schools, and centres, one can expect that the related body would be informed by the Faculty of

Agriculture on the discussions of the Hevsel Gardens focus group. However, there is no contractual guarantee or a pronounced statement in the management plan.

Action 2.2.1.2 is a project action called “*Developing Ecotourism Implementation Handbook*” whereas Action 2.2.1.3 is a project action called “*Developing Agritourism Implementation Handbook*” and a budget of 200.000 TRY is assigned to each action based on the master plan preparation price list. Beneficiaries of the actions are institutions and organizations working in urban planning and tourism realms. There is no connection between community stakeholders and beneficiaries or implementers of both actions. Consultants of Action 2.2.1.2 does not include any community stakeholders while one of the consultants of Action 2.2.1.3 is DPD of Agriculture and Forestry who participated in the focus group meetings.

Action 4.1.1.1 and Action 4.1.1.2 are a part of a project called “*Developing tourism implementation guides*”. The total budget of the project is 2.289.000 TRY, while the budget each action is 333.000 TRY including the preparation of the implementation guides, and advertisement and promotion costs. Beneficiaries of the actions include visitors, users, and residents who are community stakeholders. One of the implementers of the actions is DPD of Agriculture and Forestry who participated in the focus group meetings. One can infer that implementation of the actions can be informed by this actor who knows what community wants.

Action 5.1.4.3 is an activity, and no beneficiaries is defined. Besides, there no connection between community stakeholders and consultants of the action whereas one of the implementers is Dicle University who is an institution with many departments and faculties, therefore it is expected that Dicle University Faculty of Agriculture can transfer the community discussions to the institution even though there is no contractual guarantee or a pronounced statement in the management plan.

Action 5.2.3.1 is a project action called “*Ecological City Guide Project*” and a budget of 250.000 TRY is assigned for the preparation of the Ecological City Guide. Beneficiaries include users and NGOs in the management plan area. One can infer that they are represented in the Hevsel Gardens focus group meeting by farmers and Sarmasik Association. One of the consultants of this action is also Dicle University, therefore connection with community to some degree can be presumed. However, there is no proof of connection between the implementers of the action and community stakeholders.

Action 5.3.2.3, Action 5.5.1.1, and Action 5.5.1.7 are actions with budget, that is why none of them have beneficiaries. The budget of Action 5.3.2.3 is 2.000.000 TRY and both consultants and implementers of the action include one actor from focus group meetings. Action 5.5.1.1 is budgeted 2.500.000 TRY and its consultants include relevant NGOs which might be any NGOs of the community. Action 5.5.1.7 has a budget of 3.500.000 TRY and consultants of the action include both community stakeholders and an institution represented in the focus groups meetings. One of the consultants of these three actions is also Dicle University, therefore connection with community to some degree can be presumed. However, there is no connection between focus group and the implementers of Action 5.5.1.1 and Action 5.5.1.7.

Table 99: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 16.1: Ecological agriculture activities can support young population to get involved in agricultural activities. Practice-based education on ecological agriculture activities and cooperatives may help.	Action 5.3.2.1: Prepare and implement the "Tigris Valley Eco-Tourism Area Spatial Plan" in which day trip destinations, camp areas, and summer schools with ecological balance and biological diversity themes are specified.	Size of completed spatial implementation at the Tigris Valley Eco- Tourism Area; Activities started in accordance with the plan and numbers of users
Issue 16.2: Studies should be done by universities to re-produce endangered products such as sand peach and sand watermelon.	Action 2.1.1.7: Conduct R&D work towards breeding of authentic products like sand peach, sand watermelon which face extinction.	Amount of authentic local products produced in Hevsel Gardens
	Action 3.4.2.7: Preserve seeds of all cultivated products in Hevsel Gardens.	Number of studies to preserve the local seeds of Hevsel Gardens; Number of seed species under protection
Issue 16.3: Ecological agriculture activities can be promoted by eco-tourism and other activities such as allotment gardens.	Action 2.2.1.2: Assign Ecotourism Thematic Area(s) and develop the Ecotourism Implementation Handbook.	Ecotourism Thematic Areas Implementation Handbook
	Action 2.2.1.3: Assign Agritourism Thematic Area(s) and develop the Agritourism Implementation Handbook.	Agritourism Thematic Areas Implementation Handbook
	Action 4.1.1.1: Examine national and international best practices in Ecotourism, promote the ecotourism potential of the management plan area, develop projects to define principles and standards related to bearing capacity.	Size of the Eco-tourism area that has started activity; Number of visitors of these areas
	Action 4.1.1.2: Examine national and international best practices in Agritourism, promote the Agritourism potential of the management plan area, structure competitive power and develop projects that define principles and standards related to bearing capacity.	Size of Agritourism area that has started activity; Number of visitors of these Agritourism areas
	Action 5.1.4.3: Support ecotourism activities that bring together the natural values of the area.	Number of experts who will plan ecotourism activities; Number of ecotourism activities; Number of ecotourism visitors
	Action 5.2.3.1: Ensure all types of activities are conducted based on an ecological city guide prepared for the management plan area.	Ecological city guide; Ratio of the activities carried out as per the ecological city guide
	Action 5.3.2.3: Prepare and implement the Hevsel Gardens Agritourism Spatial Plan by restructuring ruined mills and similar cultural heritage elements.	Size of completed spatial implementation in the Hevsel Gardens Agritourism Area; Activities started in accordance with the plan and numbers of users
	Action 5.5.1.1: Create the elements of the ecologic balance and biodiversity presentation theme for the Tigris Valley Presentation Node, delineate borders and routes, prepare and implement urban design and architectural projects.	Size of completed spatial implementation at the Tigris Valley Presentation Node

Issue	Action	Output
	Action 5.5.1.7: Create the elements of the agricultural activities, ecologic production practices and intangible cultural heritage presentation theme for the Hevsel Gardens Presentation Node, delineate borders and routes, prepare and implement urban design and architectural projects.	Size of completed spatial implementation at the Hevsel Gardens Presentation Node

Issue 16.1 suggests practice-based education on ecological agriculture for young population and to support their involvement in agricultural activities. Action 5.3.2.1 addressing to this issue aims to prepare and implement “Tigris Valley Eco-Tourism Area Spatial Plan” which offers summer schools for young population on ecological balance and biological diversity themes. Outputs of the action are the size of completed spatial implementation area and the number of activities and users. One can infer those outputs can monitor the action in case the total size of implementation area is known, however, outputs do not address to the issue directly. For example, the number of young populations who is a part of the project or attended in the activities cannot be monitored by these outputs.

Issue 16.2 is about the endangered products and their re-production. Action 2.1.1.7 suggests conducting R&D work for breeding of these products while Action 3.4.2.7 aims to preserve seeds of them. Outputs of these actions are the number of authentic products produced and the number of studies done. One can infer those outputs of both actions can monitor the actions and addressing to the Issue 16.2.

Issue 16.3 is about promotion of ecological agriculture activities such as allotment gardens. There are 9 actions addressing to this issue assertion and only one of them is about solely supporting ecotourism activities and it is the only action defined as an activity; Action 5.1.4.3. Other actions are either developing handbooks/guides or preparing spatial plans such as Hevsel Gardens Agritourism Area, Tigris Valley Presentation Node, Hevsel Gardens Presentation Node. Outputs of these actions are either the handbook/guide itself or the size of completed spatial implementation. One can infer those outputs can monitor the actions, but they do not correspond to the issue directly.

Issues raised in focus group meetings by the community stakeholders are fully, partially, or not transferred into management plan actions. Issue 16.2 and Issue 16.3 are respectively fully transferred into Action 2.1.1.7, Action 3.4.2.7, Action 4.1.1.1, Action 4.1.1.2 and supported by the connections between focus group stakeholders and management plan actors. Whereas, Issue 16.2 and Issue 16.3 are partially translated into Action 5.3.2.1, Action 2.2.1.2, Action 2.2.1.3, Action 5.2.3.1, Action 5.3.2.3, Action 5.5.1.1, Action 5.5.1.7. However, Issue 16.3 is not transferred to Action 5.1.4.3 in terms of both context and connection between actors.

Table 100: Results for assessment of Issue Code 16 – Ecological Agriculture

Level of Knowledge Transfer												
	Addressed				Partially addressed							Not addressed
Issue	Issue 16.2		Issue 16.3		Issue 16.1	Issue 16.3						Issue 16.3
Focus Group	HG		HG		Y	HG						HG
Action	Action 2.1.1.7	Action 3.4.2.7	Action 4.1.1.1	Action 4.1.1.2	Action 5.3.2.1	Action 2.2.1.2	Action 2.2.1.3	Action 5.2.3.1	Action 5.3.2.3	Action 5.5.1.1	Action 5.5.1.7	Action 5.1.4.3
Budget	350.000 TRY	300.000 TRY	333.000 TRY	333.000 TRY	2.000.000 TRY	200.000 TRY	200.000 TRY	250.000 TRY	2.000.000 TRY	2.500.000 TRY	3.500.000 TRY	Activity
Beneficiaries	Hevsel Gardens producers and consumers		Visitors, Users, Residents	Visitors, Users, Residents				Users, NGOs				
Consultants		Women organizations					DPD of Agriculture and Forestry	Dicle University	Chamber of Architects Diyarbakir Branch, Dicle University	Relevant NGOs, Dicle University	Relevant NGOs, DPD of Agriculture and Forestry, Dicle University	
Implementers	Dicle University Faculty of Agriculture, DPD of Agriculture and Forestry	DPD of Agriculture and Forestry, Dicle University	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry					DPD of Agriculture and Forestry			Dicle University
Outputs	Quantitative	Quantitative	Quantitative	Quantitative	Quantitative	Qualitative	Qualitative	Qualitative	Quantitative	Quantitative	Quantitative	Quantitative

Issue Code 17. Irrigation Systems

Table 101 illustrates that issue assertions for Issue Code 17. Irrigation Systems were raised by only the Hevsel Gardens community focus group.

Table 101: Issue Code 17 – Irrigation Systems and associated Management Plan Actions

Focus Group Acronym and Issue Assertions	Management Plan Actions
HG Issue 17.1: Old irrigation pipes cause problems in production, but producers do not use motorized pumps because they increase production costs. They use the sewage water which pollutes the Tigris river, causes health problems, and decreases the quality of the products.	Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.
HG Issue 17.2: Irrigation needs to be done with clean water.	Action 2.1.3.2: Spread the use of drip and sprinkler irrigation systems. Action 5.3.1.1: Establish the “Hevsel Gardens Ecological Farm” where fine agricultural practices are carried out by the public and irrigation systems are installed by taking into consideration heritage values.
HG Issue 17.3: There is a need for producer training on irrigation.	No actions
HG Issue 17.4: Irrigation Cooperatives should be supported.	No actions

Action 3.4.2.5 is associated with Issue 17.1 whereas Action 2.1.3.2 and Action 5.3.1.1 address Issue 17.2. Issue 17.3 is about the need for producer training on irrigation and Issue 17.4 suggests support for irrigation cooperatives, but both issue assertions are not addressed by any management plan actions.

Table 102: Verifying connections for Action 3.4.2.5, Action 2.1.3.2, and Action 5.3.1.1

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry;	1.055.000 TRY Giving consultancy service for producers on funding and aids for the transition of irrigation in relevant institutions by a group of three experts: 10.000 TRY x 5 years = 50.000 TRY	Institutions and organizations in urban planning realm; Commercial enterprises; Tourism enterprises	"Dicle University Center for Environmental Studies"; "Diyarbakir Food Control Laboratory Directorate"; "Provincial Sanitation Board"; "DPD of Health"; "Karacadag Development Agency"	"DSI 10th Regional Directorate"; "DPD of Agriculture and Forestry"; "Diyarbakir Water and Sewerage Administration General Directorate"
Action 2.1.3.2: Spread the use of drip and sprinkler irrigation systems.	Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	1.950.000 TRY Based on budgets of similar projects that support irrigation infrastructure investments, the budget for pilot scheme to spread the use of drip and sprinkle irrigation systems is assigned as 500.000 TRY.	Hevsel Gardens' producers; Institutions; NGOs working on agriculture in the management plan area	"Dicle University Center for Environmental Studies"; "Irrigation Cooperatives"; "Irrigation Unions"; "DMM Strategy Development Directorate"; GABB	"DSI 10th Regional Directorate"; "DPD of Agriculture and Forestry"
Action 5.3.1.1: Establish the "Hevsel Gardens Ecological Farm" where fine agricultural practices are carried out by the public and irrigation systems are installed by taking into consideration heritage values.		1.000.000 EUR Based on the projects for organic agriculture development by EU Grant Funds, Ministry of Agriculture and Forestry, assigned budget is 1.000.000 EUR.	Hevsel Gardens' producers; Hevsel Gardens' consumers; Institutions; Organizations working on agriculture; Companies	"Chamber of Architects Diyarbakir Branch"; "Chamber of Landscape Architects Diyarbakir Branch"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"; GABB; "DSI 10th Regional Directorate"	"DMM Construction and Urbanization Directorate"; "DPD of Agriculture and Forestry"

Action 3.4.2.5 is a part of a project called "*Environmental Risks Caused by Agricultural Activities*" with a total budget of 1.055.000 TRY, whereas the budget for this action is 50.000 TRY to give consultancy service to producers by a group of three experts. There is no connection between focus group and neither beneficiaries nor consultants. One of the implementers of the action participated in the focus group meetings, that is why one can infer that knowledge is transferred from focus group discussions to the implementers of

the action. DPD of Agriculture and Forestry is the provincial directorate of Ministry of Agriculture and Forestry who is responsible for supporting cooperation of producers and managing agricultural funds and aids. This actor can be seen as an informed actor from focus group meetings and can utilise this information in the process of implementation of Action 3.4.2.5.

Action 2.1.3.2 is one of the two actions of the “*Rural Development Project*” with a total budget of 1.950.000 TRY. The budget for this action is 1.500.000 TRY in total; 500.000 TRY for the pilot scheme to spread drip and sprinkle irrigation systems, and 1.000.000 TRY to manage the scheme in the consecutive years. Beneficiaries are Hevsel Gardens’ producers and NGOs working on agriculture who are represented in the focus group meeting by farmers. Consultants comprise of irrigation cooperatives and irrigation unions who are possibly formed by farmers or producers. DPD of Agriculture and Forestry is also assigned as one of the implementers of this action. Therefore, it is expected that knowledge transfer occurs from focus group discussions to the implementation process, same as the previous action.

Action 5.3.1.1 is a project action called “*Hevsel Gardens Ecological Farming Project*” with a budget of 1.000.000 EUR. The budget is assigned based on the organic agriculture development projects funded by European Union Grant Funds. Beneficiaries are Hevsel Gardens’ producers and consumers, and NGOs working on agriculture who are represented in the focus group meeting by farmers and Sarmasik Association. Consultants of the action include Chamber of Architects Diyarbakir Branch and implementers of the action include DPD of Agriculture and Forestry who are both attendees of Hevsel Gardens’ focus group meeting. Therefore, one can infer that both consultants and implementers of the action would be informed by the discussions at the focus group meeting.

Table 103: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 17.1: Old irrigation pipes cause problems in production, but producers do not use motorized pumps because they increase production costs. They use the sewage water which pollutes the Tigris river, causes health problems, and decreases the quality of the products.	Action 3.4.2.5: Include planning studies on funding and aids into the agenda for the transition from surface irrigation to drip and sprinkler irrigation systems to protect water resources and ensure their efficient use.	Number of the educational awareness raising activities on the risks of surface irrigation systems; Number of the producers and farmers participated in educational awareness raising activities; Ratio of the producers and farmers who has started to use alternative irrigation systems instead of surface irrigation systems
Issue 17.2: Irrigation needs to be done with clean water.	Action 2.1.3.2: Spread the use of drip and sprinkler irrigation systems.	Size of agricultural area where equipment of drip and sprinkler irrigation systems are in use; Number of producers who are using the drip and/or sprinkler irrigation systems
	Action 5.3.1.1: Establish the “Hevsel Gardens Ecological Farm” where fine agricultural practices are carried out by the public and irrigation systems are installed by taking into consideration heritage values.	Hevsel Gardens Ecological Farming Report; Number of experts working in the project

Issue 17.1 is about the use of old irrigation pipes and the use of sewage water for irrigation, and states that the reason is the cost of motorized pumps, however, this situation pollutes the Tigris River. Action 3.4.2.5 offers to include funding studies into the agenda to alter irrigation systems to protect water resources. Outputs of the action are the number of educational activities and the number of producers participated in these activities, and the ratio of the producers who stopped to use surface irrigation system. One can infer that the outputs partially monitor the action step-by-step as regards the transition in irrigation systems. However, there is no output to monitor the funding studies which is stated in the issue assertion as a problem. Action 3.4.2.5 and its outputs partially addresses to the Issue 17.1.

Issue 17.2 is a request on the use of clean water for irrigation. Action 2.1.3.2 is about spreading the use of drip or sprinkler irrigation systems, whereas Action 5.3.1.1 is about creating an ecological farm to offer a public platform for practicing fine agricultural activities. Outputs of the Action 2.1.3.2 are the size of agricultural fields in which environment-friendly irrigation systems are in use and the number of producers who uses them. One can infer those outputs can monitor the action in two-ways; by the size of the fields and by the number of the producers. Outputs of Action 5.3.1.1 are the report of Hevsel Gardens Ecological Farming project and the number of experts working in the project. The report is a qualitative output which might include the detailed information about the project implementation process and results. However, it is not clear how the number of experts working on the project would be an indication of progress.

Issues raised in Hevsel Gardens focus group meeting are fully, partially, or not translated into management plan actions. Issue 17.2 is fully transferred into Action 2.1.3.2, but partially transferred into Action 5.3.1.1 in terms of context but both are supported by the connections between focus group stakeholders and management plan actors. Issue 17.1 is partially translated into Action 3.4.2.5 in terms of both context and connection between actors whereas Issue 17.3 and Issue 17.4 are not translated into any management plan actions.

Table 104: Results for assessment of Issue Code 17 – Irrigation Systems

Level of Knowledge Transfer					
	Addressed	Partially addressed		Not addressed	
Issue	Issue 17.2	Issue 17.1	Issue 17.2	Issue 17.3	Issue 17.4
Focus Group	HG	HG	HG	HG	HG
Action	Action 2.1.3.2	Action 3.4.2.5	Action 5.3.1.1		
Budget	1.500.000 TRY	50.000 TRY	1.000.000 EUR		
Beneficiaries	Hevsel Gardens' producers, NGOs working on agriculture		Hevsel Gardens' producers and consumers, organizations working on agriculture		
Consultants	Irrigation cooperatives and unions		Chamber of Architects Diyarbakir Branch		
Implementers	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry		
Outputs	Quantitative	Quantitative	Quantitative and qualitative		

Issue Code 22. Support for Producers

Table 105 illustrates that issue assertions for Issue Code 22. Support for Producers were raised by only the Hevsel Gardens community focus group. Three of the management plan actions do not refer to a specific issue assertion raised by any focus groups but they are associated with the content of the Issue Code 22. Support for Producers.

Table 105: Issue Code 22 – Support for Producers and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
	No specific issue assertions	Action 2.1.1.1: Create database for the Hevsel Gardens production inputs and update it at the scale of Hevsel Gardens agricultural enterprises and farms.
	No specific issue assertions	Action 2.1.3.3: Establish public agricultural practice demonstration fields for producers to spread environmentally friendly agricultural practices.
	No specific issue assertions	Action 2.1.3.4: Introduce agricultural production processes in public agricultural practice demonstration fields in terms of stages and content –e.g. input amount, production cost, labour cost, production stages, sales unit price and amount, sales channels etc.– via written and visual publicity means.
HG	Issue 22.1: There is a need to support producers by facilitating a Hevsel Reproduction Centre.	Action 5.3.1.2: Establish the Hevsel Reproduction Centre with a cold storage area, input warehouse and sales units for the reconstruction of the administration of the agricultural organization structure and the competitive power of producers.
HG	Issue 22.2: Financial sources should be better introduced to producers.	Action 2.1.1.3: Develop legal solutions to overcome legal barriers that prevent producers in Hevsel Gardens from being included in the subsidy network, carry out necessary legal initiatives.
		Action 2.1.1.6: Organise briefings about new agricultural loans issued by financial institutions, carry out legal efforts to facilitate producers and/or corporate agricultural structures to benefit from them.
HG	Issue 22.3: Producers should be supported and organised through cooperatives.	Action 2.1.1.5: Constitute the corporate structure (such as cooperatives, associations, unions etc.) to organise the community of Hevsel producers and farmers.
HG	Issue 22.4: Improving marketing abilities of producers is important but producers are unable to do marketing due to urgent need for income.	Action 2.1.1.2: Constitute an intra-city food supply chain to conduct research and development studies to increase marketing opportunities for Hevsel products.

Action 5.3.1.2 addresses to Issue 22.1 whereas Action 2.1.1.3 and Action 2.1.1.6 address Issue 22.2. Issue 22.3 is associated with Action 2.1.1.5, and Issue 22.4 is addressed by Action 2.1.1.2. On the other hand, Action 2.1.1.1 about creating and updating Hevsel Gardens production database, Action 2.1.3.3 about spreading environmentally friendly agricultural practices, Action 2.1.3.4 informing producers on agricultural production processes in public agricultural practice demonstration fields are not associated with any specific issue assertions.

Table 106: Verifying connections for Action 2.1.1.1,2,3,5,6, Action 2.1.3.3,4, and Action 5.3.1.2

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 2.1.1.1: Create database for the Hevsel Gardens production inputs and update it at the scale of Hevsel Gardens agricultural enterprises and farms.	-	250.000 TRY Creating GIS database, updating it regularly, monitoring and auditing; 50.000 TRY x 5 years, 250.000 in total.	Hevsel Gardens' producers; Hevsel Gardens' consumers	"Dicle University Faculty of Agriculture"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "Southeastern Anatolia Project Regional Development Administration"	"DPD of Agriculture and Forestry"; "DMM Information Technology Directorate"
Action 2.1.3.3: Establish public agricultural practice demonstration fields for producers to spread environmentally friendly agricultural practices.		1.950.000 TRY First year; awareness raising activities, informative trainings, symposiums, visits, meetings, and campaigns for producers via written and visual press will be prepared to spread eco-friendly agricultural practices and eco-friendly irrigation systems. Three years budget: 450.000 TRY	Hevsel Gardens' producers; Institutions; NGOs working on agriculture in the management plan area	"DMM Strategy Development Directorate"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"; "DSI 10th Regional Directorate"	"DPD of Agriculture and Forestry"; "Dicle University Faculty of Agriculture"; "DMM Parks, Gardens and Green Areas Directorate"; "DMM Construction and Urbanization Directorate"
Action 2.1.3.4: Introduce agricultural production processes in public agricultural practice demonstration fields in terms of stages and content –e.g. input amount, production cost, labour cost, production stages, sales unit price and amount, sales channels etc.– via written and visual publicity means.		474.000 TRY For the educational materials, reports, web applications; for 3 years; 300.000 TRY Monthly salary for 3 experts from statistics, agricultural engineering, economics and similar areas; 4.000 TRY for 2 months a year; for 3 years; 24.000 TRY Preparation of education materials, design, edition, publication and distribution; for 3 years; 150.000 TRY	Hevsel Gardens' producers; Institutions; NGOs working on agriculture in the management plan area	"DMM Strategy Development Directorate"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"; "Dicle University"; "DSI 10th Regional Directorate"	"DPD of Agriculture and Forestry"; "DMM Parks, Gardens and Green Areas Directorate"
Action 5.3.1.2: Establish the Hevsel Reproduction Centre with a cold storage area, input warehouse and sales units for the reconstruction of the administration	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of	500.000 EUR Based on the agricultural development projects by EU Grant Funds, Ministry of Agriculture and Forestry, average	Hevsel Gardens' producers; Hevsel Gardens' consumers; Institutions;	"Chamber of Architects Diyarbakir Branch"; "Chamber of Landscape Architects Diyarbakir Branch";	"DMM Construction and Urbanization Directorate"; "DPD of Agriculture and Forestry"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
of the agricultural organization structure and the competitive power of producers.	Conservation of Cultural Assets; DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	budget of 500.000 EUR is assigned.	Organizations working on agriculture; Companies	"Chamber of Agricultural Engineers Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"; GABB; "DSI 10th Regional Directorate"	
Action 2.1.1.3: Develop legal solutions to overcome legal barriers that prevent producers in Hevsel Gardens from being included in the subsidy network, carry out necessary legal initiatives.		Activity	No beneficiaries	"DMM Legal Consultancy"; "Dicle University Center for Environmental Studies"	"The Diyarbakir Bar"; "DPD of Agriculture and Forestry"
Action 2.1.1.6: Organise briefings about new agricultural loans issued by financial institutions, carry out legal efforts to facilitate producers and/or corporate agricultural structures to benefit from them.		Activity	No beneficiaries	"Southeastern Anatolia Project Regional Development Administration"; "Karacadag Development Agency"; "DMM Strategy Development Directorate"; "The Diyarbakir Bar"	"DPD of Agriculture and Forestry"; "KOSGEB"; "Diyarbakir Chamber of Agriculture Association"
Action 2.1.1.5: Constitute the corporate structure (such as cooperatives, associations, unions etc.) to organise the community of Hevsel producers and farmers.		Activity	No beneficiaries	"DPD of Agriculture and Forestry"; "DMM Legal Consultancy"; "The Diyarbakir Bar"	"DMM Strategy Development Directorate"; "Chamber of Agricultural Engineers Diyarbakir Branch"; "Diyarbakir Chamber of Agriculture Association"; "Karacadag Development Agency"
Action 2.1.1.2: Constitute an intra-city food supply chain to conduct research and development studies to increase marketing		300.000 TRY Monthly salary of the research-analysis team of 5 experts from food engineering, economics, agricultural	Hevsel Gardens' producers; Hevsel Gardens' consumers	"DMM Strategy Development Directorate"; "DMM Financial Resources Directorate";	"Diyarbakir Chamber of Agriculture Association"; "DPD of Agriculture and Forestry"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
opportunities for Hevsel products.		engineering, statistics, marketing etc. to conduct studies on marketing opportunities and food supply chain requirements; 4.000 TRY per expert x 5 experts x 3 months per year x 5 years = 300.000 TRY		"Chamber of Commerce and Industry Diyarbakir Branch"	

Action 2.1.1.1 is a project action called “*Expansion of Agricultural Production and Marketing Network in Hevsel Gardens*”. The budget of action is 250.000 TRY to create GIS database and for regular updates, monitoring, and auditing for 5 years. Beneficiaries are Hevsel Gardens’ producers and consumers who were presented by farmers at the Hevsel Gardens focus group meeting. One of the consultants is Dicle University Faculty of Agriculture who attended to focus group discussion. One of the implementers is DPD of Agriculture and Forestry who was present at the focus group meeting. Therefore, it is expected that both consultants and implementers of the action would be informed by these two actors.

Action 2.1.3.3 is one of the two actions of the “*Rural Development Project*” with a total budget of 1.950.000 TRY. The budget for this action is 450.000 TRY to spread environmentally friendly agricultural practices. Beneficiaries are Hevsel Gardens’ producers and NGOs working on agriculture who are represented in the focus group meeting by farmers. DPD of Agriculture and Forestry and Dicle University Faculty of Agriculture are assigned as part of the implementers of this action. Therefore, it is expected that knowledge transfer occurs from focus group discussions to the implementation process.

Action 2.1.3.4 is a project action titled “*Promotion of agricultural production process in Hevsel Gardens*” with a budget of 474.000 TRY. The budget has three main elements: the cost of educational materials; 300.000 TRY, the salary of experts; 24.000 TRY, and the preparation and distribution of education materials; 150.000 TRY. Beneficiaries of this action are Hevsel Gardens’ producers and NGOs working on agriculture in the management plan area who are represented by farmers at the focus group discussions. One of the consultants is Dicle University who can be related with the Agriculture Faculty of Dicle University who attended the Hevsel Gardens community focus group. Even though Dicle University composing an institution with many departments, faculties, schools, and centres, one can expect that the related body would be informed by the Faculty of Agriculture on the discussions of the Hevsel Gardens focus group. However, there is no contractual guarantee or a pronounced statement in the management plan.

Action 5.3.1.2 is a project action called “*Establishment of the Hevsel Reproduction Centre*” with a budget of 500.000 EUR to establish Hevsel Reproduction Centre. Beneficiaries of the action are Hevsel Gardens’ producers and consumers and organizations working on agriculture who are represented by farmers and Sarmasik Association in the focus group meeting. One of the consultants is Chamber of Architects Diyarbakir Branch and one of the implementers is DPD of Agriculture and Forestry, both attended in the focus group discussion. One can infer that both consultants and implementers of the action would be informed by these two actors.

Action 2.1.1.3, Action 2.1.1.6, and Action 2.1.1.5 are all defined as an activity, therefore there is no budget assigned and no beneficiaries defined. DPD of Agriculture and Forestry is one of the consultants of Action 2.1.1.3 and Action 2.1.1.6 and is one of the implementers of Action 2.1.1.5.

Action 2.1.1.2 is a project action called “*Expansion of Agricultural Production and Marketing Network in Hevsel Gardens*”. The budget is assigned as 300.000 TRY based on the monthly salary of research-analysis team. Beneficiaries of the action are Hevsel Garden’s producers and consumers who are represented by farmers and Sarmasik Association in the focus group meeting. There is no connection between community stakeholders and the consultants of the action whereas one of the implementers of the action is DPD of Agriculture and Forestry.

Table 107: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue Code	Action 2.1.1.1: Create database for the Hevsel Gardens production inputs and update it at the scale of Hevsel Gardens agricultural enterprises and farms.	Preparation of the Hevsel Gardens database in GIS; Number of agricultural input headings recorded by the database(area acreage, ownership, fertilizer, pesticide, seed, irrigation, fallowing etc.); Reports prepared according to the database; Number of the institutions that can access to the database
Issue Code	Action 2.1.3.3: Establish public agricultural practice demonstration fields for producers to spread environmentally friendly agricultural practices.	Acreage of the public agricultural practice demonstration fields; Number of producers participated in environmental friendly agriculture trainings
Issue Code	Action 2.1.3.4: Introduce agricultural production processes in public agricultural practice demonstration fields in terms of stages and content –e.g. input amount, production cost, labour cost, production stages, sales unit price and amount, sales channels etc.– via written and visual publicity means.	Number of producers participated in environmental friendly agriculture trainings; Number of published materials, documents or brochures about environmental friendly agriculture practices; Reports of the studies
Issue 22.1: There is a need to support producers by facilitating a Hevsel Re-production Centre.	Action 5.3.1.2: Establish the Hevsel Reproduction Centre with a cold storage area, input warehouse and sales units for the reconstruction of the administration of the agricultural organization structure and the competitive power of producers.	Hevsel Reproduction Centre activity report; Number of experts working at the Hevsel Reproduction Centre
Issue 22.2: Financial sources should be better introduced to producers.	Action 2.1.1.3: Develop legal solutions to overcome legal barriers that prevent producers in Hevsel Gardens from being included in the subsidy network, carry out necessary legal initiatives.	Number of producers benefited from legal support; Number of producers who are registered to Farmer Registration System(CKS)* and benefit from agriculture supports *It is an agricultural database created and managed by Ministry of Agriculture and Forestry.
	Action 2.1.1.6: Organise briefings about new agricultural loans issued by financial	Number of briefings;

Issue	Action	Output
	institutions, carry out legal efforts to facilitate producers and/or corporate agricultural structures to benefit from them.	Number of individuals and institutions participated in those meetings; Number of producers with access to alternative financial resources; Number of producers benefited from legal support
Issue 22.3: Producers should be supported and organised through cooperatives.	Action 2.1.1.5: Constitute the corporate structure (such as cooperatives, associations, unions etc.) to organise the community of Hevsel producers and farmers.	Number of cooperatives, associations, unions etc. that organise Hevsel producers and farmers; Number of the members of those organizations; Number of activities carried out by those organizations
Issue 22.4: Improving marketing abilities of producers is important but producers are unable to do marketing due to urgent need for income.	Action 2.1.1.2: Constitute an intra-city food supply chain to conduct research and development studies to increase marketing opportunities for Hevsel products.	Number of research reports analysing marketing opportunities of Hevsel products; Number of food marketing units selling Hevsel products in the city

Issue 22.1 is a specific request on establishment of Hevsel Reproduction Centre, whereas Issue 22.2 suggests introducing financial resources to producers and Issue 22.3 suggests supporting producers through cooperatives. On the other hand, Issue 22.4 is about improving the marketing abilities of producers which remained undeveloped due to the urgent need for income.

Action 2.1.1.1, Action 2.1.3.3, and Action 2.1.3.4 do not correspond to any specific issue assertions, but they address to the Issue Code 22 – Support for producers in general. Action 2.1.1.1 is about creating a GIS database for producers to support them, while Action 2.1.3.3 is about creating public agricultural demonstration fields to spread environmentally friendly agriculture practices. On the other hand, Action 2.1.3.4 is about educating producers on agricultural production processes. All of them corresponds to the issue code as regards the provision of support in production process. Outputs of Action 2.1.1.1, which are preparation of GIS database, number of inputs, reports, and number of institutions with access, monitors the action implementation step-by-step. Outputs of Action 2.1.3.3 are the size of the agricultural practice demonstration fields in use and the number of producers participated in trainings, which can show the progress of the action. On the other hand, outputs of Action 2.1.3.4 are both qualitative and quantitative and monitors the action by the number of producers participated in trainings and with the report of studies.

Action 5.3.1.2 is directly addressing to the Issue 22.1 by offering the request of the community and outputs of the action are the Hevsel Reproduction Centre activity report which can be a detailed document or not, and the number of experts working in this centre which does not reveal much about the progress of the action to monitor.

Action 2.1.1.3 and Action 2.1.1.6 are addressing to the Issue 22.2 which is about supporting producers financially. Both actions are about helping producers to deal with legal issues in finance and informing them about producer loans and subsidy network. Outputs of these actions are corresponding with both the issue

assertion and actions by mainly monitoring the number of producers benefited from legal and informative support.

Action 2.1.1.5 addresses to the Issue 22.3 which is about producer cooperatives, and action offers an organised community of Hevsel Gardens' farmers and producers. Outputs of the action are merely quantitative which are the number of cooperatives, the number of their members, and the number of activities carried out by them. One can infer that statistically, these numbers can monitor the action, but the impact of cooperatives might result both negatively and positively which cannot be understood by numbers.

Action 2.1.1.2 about creating an intracity food supply chain to increase the marketing opportunities for producers addresses to the Issue 22.4. Outputs of Action 2.1.1.2 are the number of marketing analysis reports and the number of food marketing units located in the city which can partially monitor the action and partially corresponds to the issue.

Issue assertions raised in the Hevsel Gardens focus group meeting are fully or partially translated into management plan actions. Issue 22.1 is fully translated into Action 5.3.1.2, whereas Issue 22.2 and Issue 22.3 are partially transferred into management plan actions even though the context is fully transferred. Action 2.1.1.2 also partially addresses to the Issue 22.4 because it is supported by the connections between focus group stakeholders and management plan actors while it does not cover the context of the issue assertion.

Table 108: Results for assessment of Issue Code 22 – Support for Producers

Level of Knowledge Transfer								
	Addressed		Partially addressed					Not Addressed
Issue		Issue 22.1			Issue 22.2	Issue 22.3	Issue 22.4	
Focus Group		HG			HG	HG	HG	
Action	Action 2.1.3.4	Action 5.3.1.2	Action 2.1.1.1	Action 2.1.3.3	Action 2.1.1.3	Action 2.1.1.6	Action 2.1.1.5	Action 2.1.1.2
Budget	474.000 TRY	500.000 EUR	250.000 TRY	450.000 TRY	Activity		Activity	300.000 TRY
Beneficiaries	Hevsel Gardens' producers; NGOs working on agriculture	Hevsel Gardens' producers and consumers; Organizations working on agriculture	Hevsel Gardens' producers and consumers	Hevsel Gardens' producers; NGOs working on agriculture				Hevsel Gardens' producers and consumers
Consultants	Dicle University	Chamber of Architects Diyarbakir Branch	Dicle university Faculty of Agriculture				DPD of Agriculture and Forestry	
Implementers	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry	DPD of Agriculture and Forestry; Dicle university Faculty of Agriculture	DPD of Agriculture and Forestry			DPD of Agriculture and Forestry
Outputs	Qualitative & quantitative		Qualitative & quantitative	Quantitative	Quantitative	Quantitative	Quantitative	

Issue Code 21. Soil Pollution

Table 109 illustrates that issue assertions for Issue Code 21. Soil Pollution were raised by only the Hevsel Gardens community focus group.

Table 109: Issue Code 21 – Soil Pollution and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
HG	Issue 21.1: The water pollution in Tigris river and use of sewage water for irrigation lead to soil pollution in Hevsel Gardens.	Action 3.4.2.2: Conduct regular measurements of heavy metals in Hevsel Gardens products and soil to monitor their levels as well as to detect any chemicals threaten human health.
		Action 3.4.2.3: Evaluate results of the analyses from water, soil and products and prepare risk assessment reports for water-soil-food, take necessary precautions accordingly.
		Action 5.1.4.7: Prevent to burn wild weeds on the agricultural lands within the management plan area.
HG	Issue 21.2: Soil analysis should also be useful to guide production.	Action 2.1.3.1: Conduct soil analysis to determine the optimal input amount and type, inform the producers about the results.
		Action 3.4.2.6: Conduct educational activities for farmers and producers about fine agricultural practices against soil exhaustion due to excessive cultivation without fallow in Hevsel Gardens.

Issue 21.1 is addressed by Action 3.4.2.2, Action 3.4.2.3, and Action 5.1.4.7 whereas Issue 21.2 is associated with Action 2.1.3.1 and Action 3.4.2.6.

Table 110: Verifying connections for Action 3.4.2.2-3, Action 5.1.4.7, Action 2.1.3.1, and Action 3.4.2.6

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.4.2.2: Conduct regular measurements of heavy metals in Hevsel Gardens products and soil to monitor their levels as well as to detect any chemicals threaten human health.	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	1.055.000 TRY Standard irrigation water analysis cost: 85.000 TRY x 5 years = 425.000 TRY	Institutions and organizations in urban planning realm; Commercial enterprises; Tourism enterprises	"DMM Environmental Protection and Development Directorate"; "Provincial Sanitation Board"; "Diyarbakir Water and Sewerage Administration General Directorate"; "Dicle University Department of Public Health"	" DPD of Agriculture and Forestry "; "DPD of Health"
Action 3.4.2.3: Evaluate results of the analyses from water, soil and products and prepare risk assessment reports for water-soil-food, take necessary precautions accordingly.				"DPD of Health"; "DMM Environmental Protection and Development Directorate"; "Provincial Sanitation Board"; "Diyarbakir Water and Sewerage"	" DPD of Agriculture and Forestry "; "Dicle University Department of Public Health"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
				Administration General Directorate"	
Action 5.1.4.7: Prevent to burn wild weeds on the agricultural lands within the management plan area.		Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "DMM Parks, Gardens and Green Areas Directorate"; "DPD of Agriculture and Forestry"	"DMM Environmental Protection and Development Directorate"; "DPD of Environment and Urbanization"; "Dicle University Center for Environmental Studies"
Action 2.1.3.1: Conduct soil analysis to determine the optimal input amount and type, inform the producers about the results.		Activity	No beneficiaries	"Chamber of Agricultural Engineers Diyarbakir Branch"; NGOs; "Dicle University Center for Environmental Studies"; "Diyarbakir Chamber of Agriculture Association"	"Dicle University Faculty of Agriculture"; "DPD of Agriculture and Forestry"
Action 3.4.2.6: Conduct educational activities for farmers and producers about fine agricultural practices against soil exhaustion due to excessive cultivation without fallow in Hevsel Gardens.		1.055.000 TRY Providing weekly trainings on fine agriculture practices for producers every 3 months: costs including rent, materials, tutor salaries 16.000 TRY x 5 years = 80.000 TRY Giving supportive consultancy services for producers on implementation of fine agriculture practices by producers participated in trainings every 3 months: 40.000 x 5 years = 200.000 TRY	Institutions and organizations in urban planning realm; Commercial enterprises; Tourism enterprises	"Dicle University"; "DMM Environmental Protection and Development Directorate"; "DSI 10th Regional Directorate"	"Karacadag Development Agency"; "DPD of Agriculture and Forestry"

Action 3.4.2.2, Action 3.4.2.3, and Action 3.4.2.6 are part of a project called “*Environmental Risks Caused by Agricultural Activities*” composed of 7 actions. The total budget of the project is 1.055.000 TRY in which Action 3.4.2.2 and Action 3.4.2.3 are budgeted 425.000 TRY to conduct regular measurements of heavy metals in soil and to evaluate the results and Action 3.4.2.6 is budgeted 200.000 TRY to give consultancy services for producers and 80.000 TRY to provide weekly trainings on fine agriculture practices; in total 280.000 TRY. Beneficiaries of the actions are stated as urban planning institutions and organizations and

tourism and commercial enterprises. Any of them are not in the Hevsel Gardens community focus group. However, one of the implementers of the actions is DPD of Agriculture and Forestry who is one of the attendees of Hevsel Gardens focus group. One can infer those other implementers of the actions will be informed by this actor. On the other hand, one of the consultants of Action 3.4.2.6 is Dicle University which can be related with the Agriculture Faculty of Dicle University who attended the Hevsel Gardens community focus group. Even though Dicle University composing an institution with many departments, faculties, schools, and centres, one can expect that the related body would be informed by the Faculty of Agriculture on the discussions of the Hevsel Gardens focus group. However, there is no contractual guarantee or a pronounced statement in the management plan.

Action 5.1.4.7 and Action 2.1.3.1 are defined as an activity; therefore, budget is not assigned, and beneficiaries are not defined for these actions. However, consultants of Action 5.1.4.7 include DPD of Agriculture and Forestry which can refer those consultants are expected to be informed about focus group discussions by this actor, even though there is no connection between implementers of the action and community stakeholders. On the other hand, one of the consultants of Action 2.1.3.1 is stated as ‘NGOs’ which is a very broad definition, and it might or might not refer to the NGOs or associations attended to focus group meetings. Nevertheless, both implementers of this action were present at the Hevsel Gardens focus group discussions which indicates that implementers gained the knowledge of community from the very first-hand.

Table 111: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 21.1: The water pollution in Tigris river and use of sewage water for irrigation lead to soil pollution in Hevsel Gardens.	Action 3.4.2.2: Conduct regular measurements of heavy metals in Hevsel Gardens products and soil to monitor their levels as well as to detect any chemicals threaten human health.	Acreage of the area in which soil contains heavy metals in Hevsel Gardens; Acreage of the area in which vegetable fields contains heavy metals and chemicals in Hevsel Gardens; Number of the yearly measurements of heavy metals and chemicals
	Action 3.4.2.3: Evaluate results of the analyses from water, soil and products and prepare risk assessment reports for water-soil-food, take necessary precautions accordingly.	Acreage of the area where agricultural production is risky; Acreage of the area where agricultural production is very risky and stopped
	Action 5.1.4.7: Prevent to burn wild weeds on the agricultural lands within the management plan area.	Number of experts working at Agricultural Fields Inspection Committee; Periodical inspection reports
Issue 21.2: Soil analysis should also be useful to guide production.	Action 2.1.3.1: Conduct soil analysis to determine the optimal input amount and type, inform the producers about the results.	Soil analysis reports; Number of producers who can access the reports
	Action 3.4.2.6: Conduct educational activities for farmers and producers about fine agricultural practices against soil exhaustion due to excessive cultivation without fallow in Hevsel Gardens.	Number of farmers and producers participated in educational activities about fine agriculture practices; Number of farmers and producers started to apply fine agriculture practices after educational activities

Issue 21.1 is about the water pollution in Tigris River and the soil pollution in Hevsel Gardens due to the use of sewage water for irrigation, whereas Issue 21.2 suggests that to facilitate soil analyses as a guide for production.

Action 3.4.2.2 and Action 3.4.2.3 are about measuring the levels of heavy metals in the soil of Hevsel Gardens and evaluating the results to take necessary precautions. Outputs are the number of measurements and the size of fields contaminated with heavy metals. They can monitor the actions whether the measurements are done, or the risky fields are marked. Action 5.1.4.7 addressing to Issue 21.1 is about stopping burning weeds and its outputs are the number of experts working at Inspection Committee and their periodical reports. Issue 21.1 diagnoses a situation in which the real reason to water and soil pollution is the use of sewage water for irrigation. However, it is not addressed neither by any of these actions, nor by their outputs.

Action 2.1.3.1 aims to conduct soil analysis and to inform producers on optimal input amount and type. Its outputs are the soil analysis reports and the number of producers who can access the reports. One can infer those outputs can monitor the action as well as address to the Issue 21.2. On the other hand, Action 3.4.2.6 addressing to the Issue 21.2, aims to conduct educational activities about fine agricultural activities against soil exhaustion and excessive cultivation. Its outputs are the number of producers participated in these activities and the number of producers who apply fine agricultural practices. One can infer those outputs can monitor the action by the increasing number of producers who learn and apply fine agricultural activities, however they do not address to the issue assertion.

Issue assertions raised in Hevsel Gardens focus group meeting are fully, partially, or not translated into management plan actions. Issue 21.1 is partially translated into Action 3.4.2.2 and Action 3.4.2.3 and not translated into Action 5.1.4.7, whereas Issue 21.2 is fully transferred into Action 2.1.3.1 and partially transferred into Action 3.4.2.6. Action 3.4.2.2, Action 3.4.2.3, and Action 3.4.2.6 do not cover the content of the Issue 21.1 but there is a connection between focus group and implementers. However, Action 5.1.4.7 just refers to the issue assertion but neither covers the content of the issue assertion nor provides a connection between focus group and implementers of the action.

Table 112: Results for assessment of Issue Code 21 – Soil Pollution

Level of Knowledge Transfer				
	Addressed	Partially addressed		Not addressed
Issue	Issue 21.2	Issue 21.1		Issue 21.1
Focus Group	HG	HG		HG
Action	Action 2.1.3.1	Action 3.4.2.2	Action 3.4.2.3	Action 3.4.2.6
Budget	Activity	425.000 TRY		280.000 TRY
Beneficiaries				
Consultants	NGOs			Dicle University
Implementers	Dicle university Faculty of Agriculture, DPD of Agriculture and Forestry	DPD of Agriculture and Forestry		DPD of Agriculture and Forestry
Outputs	Qualitative and quantitative	Quantitative		Quantitative
				Qualitative and quantitative

Issue Code 25. Water Pollution

Table 113 illustrates that issue assertions for Issue Code 25. Water Pollution were raised by two different focus groups. One of them is community focus group; the Hevsel Gardens, while the other one is non-community focus group; the Spatial Management.

Table 113: Issue Code 25 – Water Pollution and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
HG SM	Issue 25.1: Domestic waste, industrial waste and sewage waste are the main reasons for water pollution in the Tigris river. Another source of water pollution is sand quarries.	Action 3.4.1.1: Organise educative and informative activities for institutions, companies, workplaces, and tourism businesses within the management plan area regarding the decomposition of solid waste.
		Action 3.4.1.2: Take precautions to prevent garbage disposals in uninhabited buildings and green areas within the heritage site.
		Action 3.4.1.3: Acquire small size garbage collection vehicles to provide ease of access to the narrow streets of the heritage site.
		Action 3.4.2.1: Conduct Microbiologic Quality Standard readings for all water sources used for irrigation in Hevsel Gardens as well as for wastewater.
		Action 3.4.2.4: Prevent the use of irrigation sources which threaten the environment and human health due to high levels of heavy metals, support the use of clean water.
		Action 3.4.2.8: Monitor all agricultural activities, which pollutes Tigris Valley and Basin, enforce sanctions for businesses carrying out activities polluting the area.
		Action 3.4.4.1: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their guardians in 2 of the primary and 1 of the secondary schools in Surici area every year.
		Action 3.4.4.2: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their guardians in 2 of the primary and 1 of the secondary schools outside the Surici area, within the management plan boundaries, every year.
		Action 5.1.4.6: Ensure the effective inspection of solid and liquid human wastes and prevent environmental (air, soil, water) pollution in the management plan area.
		Action 5.1.4.16: Connect sewers of new buildings to the public sewer whenever possible, mandate the use of sealed cesspools otherwise.
		Action 5.1.4.17: Prohibit all sorts of activities that will disrupt the quality of water, decrease the quantity of water, change the riverbed, and/or pollute the water in the sections of the Tigris River Basin within management plan area.
		Action 5.2.2.1: Prohibit activities such as prospecting and/or operating sand quarries and cancel the permits for the operating ones and prepare and implement recovery projects for the affected areas via scientific techniques.
Action 5.2.3.2: Determine the line of businesses that can take place within the management plan area, stop sand and stone quarries, polluting industrial activities etc. that are currently operating and damaging the environment, conduct repairation works for the damage caused by them.		

Focus Group Acronym and Issue Assertions	Management Plan Actions
	Action 5.2.3.3: Identify and prevent all kinds of negative effects of the built environment and its pollutants on the Tigris River and basin such as debris and excavation dumping sites, garbage disposal fields, sewers etc, continue reparation works for the damage caused by them.

Issue 25.1 stating all main reasons for water pollution in the Tigris River, is associated with 14 management plan actions shown in Table 113.

Table 114: Verifying connections for Action 3.4.1.1, Action 3.4.1.2, Action 3.4.1.3, Action 3.4.2.1, Action 3.4.2.4, Action 3.4.2.8, Action 3.4.4.1, Action 3.4.4.2, Action 5.1.4.6, Action 5.1.4.16, Action 5.1.4.17, Action 5.2.2.1, Action 5.2.3.2, and Action 5.2.3.3

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers		
Action 3.4.1.1: Organise educative and informative activities for institutions, companies, workplaces, and tourism businesses within the management plan area regarding the decomposition of solid waste.	SM HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	220.500 TRY Organising educative and informative campaigns to increase the environmental sensitivity and awareness of the residents and users of the management plan area: 67.500 TRY Organising educative and informative activities regarding the decomposition of solid wastes: 18.000 TRY	Diyarbakir residents; Institutions; Organizations; Commercial enterprises; Users; Visitors of the management plan area	Mesopotamia Ecology Movement; NGOs working on environment; Environmental Volunteers Association; Organic Agriculture Association	Dicle University Center for Environmental Studies; DMM Environmental Protection and Development Directorate; Sur Municipality Environmental Protection & Development Directorate; Yenisehir Municipality Environmental Protection & Development Directorate; DPD of Environment and Urbanization		
Action 3.4.1.2: Take precautions to prevent garbage disposals in uninhabited buildings and green areas within the heritage site.		Preparation of sustainable solid waste management plan by 6 specialists in 3 months in the first year; 135.000 TRY				Relevant Mukhtars; NGOs working on environment	DMM Environmental Protection and Development Directorate; Sur Municipality Sanitation Directorate; Yenisehir Municipality Sanitation Directorate
Action 3.4.1.3: Acquire small size garbage collection vehicles to provide ease of access to the narrow streets of the heritage site.		120.000 USD Small-sized garbage collection vehicles: 30 vehicles for 69 neighbourhoods: 120.000 USD				Relevant Mukhtars; NGOs working on environment	DMM Environmental Protection and Development Directorate; Sur Municipality Sanitation Directorate

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.4.2.1: Conduct Microbiologic Quality Standard readings for all water sources used for irrigation in Hevsel Gardens as well as for wastewater.		1.055.000 TRY Standard irrigation water analysis cost: 85.000 TRY x 5 years: 425.000 TRY	Institutions and organizations in urban planning realm; Commercial enterprises; Tourism enterprises	DMM Environmental Protection and Development Directorate; Dicle University; Provincial Sanitation Board; Dicle University Department of Public Health	DPD of Agriculture and Forestry; DPD of Health; Diyarbakir Water and Sewerage Administration General Directorate
Action 3.4.2.4: Prevent the use of irrigation sources which threaten the environment and human health due to high levels of heavy metals, support the use of clean water.				Dicle University Center for Environmental Studies; Diyarbakir Food Control Laboratory Directorate; Provincial Sanitation Board; DPD of Health; Karacadag Development Agency	DSI 10th Regional Directorate; DPD of Agriculture and Forestry; Diyarbakir Water and Sewerage Administration General Directorate
Action 3.4.2.8: Monitor all agricultural activities, which pollutes Tigris Valley and Basin, enforce sanctions for businesses carrying out activities polluting the area.		Activity	No beneficiaries	Mesopotamia Ecology Movement; Women organizations; GABB; TMMOB Diyarbakir Provincial Coordination Board	DPD of Agriculture and Forestry; DMM Environmental Protection and Development Directorate
Action 3.4.4.1: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their guardians in 2 of the primary and 1 of the secondary schools in Surici area every year.		251.200 TRY Awareness raising about environmental awareness, waste problems, decomposition of solid wastes for students and their custodians in 2 primary and 1 secondary schools in Surici area; number of students in a school is ~330 x activity materials cost 2 TRY x 3 schools x 2 times a year x 5 years = 19.800 TRY Same activities in 2 primary and	Young population within the compulsory 8 years education period; Their custodians in the management plan area	NGOs working on environment; Karacadag Development Agency	DPD of National Education; Dicle University; DMM Environmental Protection and Development Directorate
Action 3.4.4.2: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their			Young population within the compulsory 8 years education period; Their custodians in	Environmental Volunteers Association; NGOs working on environment; Karacadag Development Agency	DPD of National Education; Dicle University; DMM Environmental Protection and Development Directorate

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
guardians in 2 of the primary and 1 of the secondary schools outside the Surici area, within the management plan boundaries, every year.		1 secondary schools out of Surici area within the management plan area; number of students in a school is ~815 x activity materials cost 2 TRY x 3 schools x 2 times a year x 5 years = 48.900 TRY Salary of 4 educators: 120.000 TRY	the management plan area		
Action 5.1.4.6: Ensure the effective inspection of solid and liquid human wastes and prevent environmental (air, soil, water) pollution in the management plan area.		Activity	No beneficiaries	DMM Construction and Urbanization Directorate; DMM Parks, Gardens and Green Areas Directorate; Dicle University; Relevant departments of the Ministry of Agriculture and Forestry; Yenisehir and Sur Municipalities Parks and Gardens Directorates	DMM Environmental Protection and Development Directorate; DPD of Environment and Urbanization
Action 5.1.4.16: Connect sewers of new buildings to the public sewer whenever possible, mandate the use of sealed cesspools otherwise.		Activity	No beneficiaries	DMM Parks, Gardens and Green Areas Directorate; Yenisehir and Sur Municipalities Parks and Gardens Directorates; Dicle University; Relevant departments of the Ministry of Agriculture and Forestry	DMM Construction and Urbanization Directorate; DMM Environmental Protection and Development Directorate; DPD of Environment and Urbanization; Diyarbakir Water and Sewerage Administration General Directorate
Action 5.1.4.17: Prohibit all sorts of activities that will disrupt the quality of water, decrease the quantity of water, change the riverbed, and/or pollute the water in		Activity	No beneficiaries	DMM Construction and Urbanization Directorate; DMM Parks, Gardens and Green Areas Directorate; Yenisehir and Sur Municipalities Parks	DPD of Agriculture and Forestry; XV. Regional Directorate of Agriculture and Forestry;

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
the sections of the Tigris River Basin within management plan area.				and Gardens Directorates; Dicle University ; Environmental Volunteers Association; Mesopotamia Ecology Movement; GABB	DMM Environmental Protection and Development Directorate; DSI; DPD of Environment and Urbanization; Diyarbakir Water and Sewerage Administration General Directorate
Action 5.2.2.1: Prohibit activities such as prospecting and/or operating sand quarries and cancel the permits for the operating ones and prepare and implement recovery projects for the affected areas via scientific techniques.		Activity	No beneficiaries	DSI; TMMOB Diyarbakir Provincial Coordination Board; Sur Municipality; Yenisehir Municipality; Mesopotamia Ecology Movement; City Council; Dicle University	DMM Construction and Urbanization Directorate; DMM Environmental Protection and Development Directorate; DPD of Environment and Urbanization; DMM KUDEB Directorate; Regional Council of Conservation of Cultural Assets
Action 5.2.3.2: Determine the line of businesses that can take place within the management plan area, stop sand and stone quarries, polluting industrial activities etc. that are currently operating and damaging the environment, conduct reparation works for the damage caused by them.		Activity	No beneficiaries	DMM Environmental Protection and Development Directorate; DPD of Environment and Urbanization; TMMOB Diyarbakir Provincial Coordination Board; Sur Municipality; Yenisehir Municipality; Mesopotamia Ecology Movement; City Council; Dicle University	DMM Construction and Urbanization Directorate; DMM KUDEB Directorate
Action 5.2.3.3: Identify and prevent all kinds of negative effects of the built environment and its pollutants on the Tigris River and basin such as debris		Activity	No beneficiaries	TMMOB Diyarbakir Provincial Coordination Board; Sur Municipality Construction and Urbanization Directorate;	DMM Construction and Urbanization Directorate; DPD of Environment and Urbanization;

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
and excavation dumping sites, garbage disposal fields, sewers etc, continue reparation works for the damage caused by them.				Sur Municipality Environmental Protection & Development Directorate; Yenisehir Municipality Construction and Urbanization Directorate; Yenisehir Municipality Environmental Protection & Development Directorate; Mesopotamia Ecology Movement; City Council; Dicle University	DMM Environmental Protection and Development Directorate

Action 3.4.1.1, Action 3.4.1.2, and Action 3.4.1.3 are composing a project called “*Solid Waste Management System Development Project*”. The project aims to organize educative activities on decomposition of solid waste to increase environmental sensitivity of citizens and users of the management plan area (Action 3.4.1.1), and to prepare a sustainable solid waste management plan (Action 3.4.1.2), and also to provide small-sized garbage collection vehicles for the site (Action 3.4.1.3). The budget of Action 3.4.1.1 is 85.500 TRY and the budget of Action 3.4.1.2 is 135.000 TRY, whereas the budget for the procurement of small-sized garbage collection vehicles is 120.000 USD. Beneficiaries of these action are stated as Diyarbakir residents, organisations, users, and visitors of the management plan area, as well as institutions and commercial enterprises. Consultants of Action 3.4.1.1 are associations and NGOs working on environment. One can assume that they might be connected to the community stakeholders. Consultants of Action 3.4.1.2 and Action 3.4.1.3 are relevant mukhtars and NGOs working on environment. Mukhtars are the administrative representatives of each neighbourhood which means they represent community stakeholders. However, there is no connection between the Hevsel Gardens focus group and implementers of these three actions.

Action 3.4.2.1 and Action 3.4.2.4 are a part of a project called “*Environmental Risks Caused by Agricultural Activities*” composed of 7 actions with a total budget of 1.055.000 TRY, whereas the budget for these actions is 425.000 TRY to conduct Microbiologic Quality Standard readings for all water sources and preventing the use of polluted water sources for irrigation purposes. There is no connection between focus group and neither beneficiaries nor consultants. One of the implementers of both actions is DPD of Agriculture and Forestry who participated in the focus group meetings, that is why one can infer that knowledge is transferred from focus group discussions to the implementers of the action. This actor can be seen as an informed actor from focus group meetings and can utilise this information in the process of implementation of these actions. Action 3.4.2.8 is an activity action; therefore, budget is not assigned, and beneficiaries are not stated. However, consultants include Women organisations which can include Sarmasik Association form focus

group. Implementers of the action includes DPD of Agriculture and Forestry who participated in focus group discussions. One can infer that this actor can transfer knowledge from community to implementation process. Action 3.4.4.1 and Action 3.4.4.2 are a part of project called “*Awareness Raising on Environmental Risks*” composed of three actions and budgeted 251.200 TRY. Action 3.4.4.1 aims to provide awareness raising activities about environment and solid waste problems in the schools within the Surici area whereas Action 3.4.4.2 aims to organise same activities in the schools outside of the Surici area within the management plan boundaries. The former action is budgeted 69.800 TRY whereas the latter is budgeted 108.900 TRY. Beneficiaries of both actions are the students in the primary and secondary schools and their parents. Consultants include NGOs working on environment that can be related to the community stakeholders. However, implementers include Dicle University whose Faculty of Agriculture participated to the focus group meeting. One can infer those implementers can be informed by this actor.

Action 5.1.4.6, Action 5.1.4.16, Action 5.1.4.17, Action 5.2.2.1, Action 5.2.3.2, and Action 5.2.3.3 are defined as an activity in the management plan. For all the actions, Dicle University is a consultant and DPD of Agriculture and Forestry is consultant for Action 5.1.4.6, Action 5.1.4.16, and implementer for Action 5.1.4.17. One of the implementers of Action 5.2.2.1 is Regional Council of Conservation of Cultural Assets who participated in the Hevsel Gardens focus group discussions. However, there is no connection between implementers and community for Action 5.1.4.6, Action 5.1.4.16, Action 5.2.3.2, and Action 5.2.3.3.

Table 115: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 25.1: Domestic waste, industrial waste and sewage waste are the main reasons for water pollution in the Tigris river. Another source of water pollution is sand quarries.	Action 3.4.1.1: Organise educative and informative activities for institutions, companies, workplaces, and tourism businesses within the management plan area regarding the decomposition of solid waste.	Number of educative and informative activities regarding the decomposition of solid waste for institutions and organizations; Increase in the ratio of decomposition of solid wastes in the institutions and organizations after participating in those activities; Number of educative and informative activities regarding the decomposition of solid waste for companies and tourism businesses
	Action 3.4.1.2: Take precautions to prevent garbage disposals in uninhabited buildings and green areas within the heritage site.	Number of daily inspections on garbage disposals; Number of staff for the inspection; Number of areas in which garbage disposal is not a problem anymore
	Action 3.4.1.3: Acquire small size garbage collection vehicles to provide ease of access to the narrow streets of the heritage site.	Number of purchased small sized garbage collection vehicles; Number of neighbourhoods-streets having waste collection problem; Number of neighbourhoods-streets with operating waste collectors; Number of neighbourhoods having regular waste collection service; Ratio of the streets for which waste collection is not a problem anymore
	Action 3.4.2.1: Conduct Microbiologic Quality Standard readings for all water sources used for irrigation in Hevsel Gardens as well as for wastewater.	Number of quality standard readings; Number of springs under risk; Number of springs whose water has tested

Issue	Action	Output
	Action 3.4.2.4: Prevent the use of irrigation sources which threaten the environment and human health due to high levels of heavy metals, support the use of clean water.	Number of irrigation sources which contain high levels of heavy metals and threaten human health; Number of water sources which have been locked down; Acreage of the area in which clean water is provided
	Action 3.4.2.8: Monitor all agricultural activities, which pollutes Tigris Valley and Basin, enforce sanctions for businesses carrying out activities polluting the area.	Number of agricultural establishments polluting the Tigris River and Basin; Amount of fines issued to agricultural establishments polluting the Tigris River and water sources
	Action 3.4.4.1: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their guardians in 2 of the primary and 1 of the secondary schools in Surici area every year.	Number of activities at schools; Number of custodians participated in activities; Number of students participated in activities; Number of brochures prepared and distributed; Activity materials
	Action 3.4.4.2: Organise activities about environmental awareness, waste problems, and decomposition of solid waste for students and their guardians in 2 of the primary and 1 of the secondary schools outside the Surici area, within the management plan boundaries, every year.	Number of activities at schools; Number of custodians participated in activities; Number of students participated in activities; Number of brochures prepared and distributed; Activity materials
	Action 5.1.4.6: Ensure the effective inspection of solid and liquid human wastes and prevent environmental (air, soil, water) pollution in the management plan area.	Number of experts based at the management plan area environmental pollution inspection committee; Periodical inspection reports
	Action 5.1.4.16: Connect sewers of new buildings to the public sewer whenever possible, mandate the use of sealed cesspools otherwise.	Number and ratio of buildings connected to public sewer
	Action 5.1.4.17: Prohibit all sorts of activities that will disrupt the quality of water, decrease the quantity of water, change the riverbed, and/or pollute the water in the sections of the Tigris River Basin within management plan area.	Water quality reports from the sections of the Tigris River Basin within management plan area; Size of the defected Tigris River bed
	Action 5.2.2.1: Prohibit activities such as prospecting and/or operating sand quarries and cancel the permits for the operating ones and prepare and implement recovery projects for the affected areas via scientific techniques.	Number of businesses having negative effects on the Tigris Valley; Number of businesses with cancelled permits
	Action 5.2.3.2: Determine the line of businesses that can take place within the management plan area, stop sand and stone quarries, polluting industrial activities etc. that are currently operating and damaging the environment, conduct reparation works for the damage caused by them.	Number of businesses threatening ecological structure; Number of businesses stopped their activities due to their negative effects to the management area ecological life; Number of reparation works carried out in the management plan area due to the damages
	Action 5.2.3.3: Identify and prevent all kinds of negative effects of the built environment and its pollutants on the Tigris River and basin such as debris and excavation dumping sites, garbage disposal fields, sewers etc, continue reparation works for the damage caused by them.	Identification report of the pollutants in the Tigris river basin; Number of precautions and prevented activities based on the identification

Issue 25.1 states the main reasons of water pollution in the Tigris River as domestic waste, industrial waste, sewage waste and sand quarries.

Actions addressing to this issue assertion can be grouped under three topics; solid or domestic waste, sewage waste and agriculture, sand quarries and industrial waste. Action 3.4.1.1, Action 3.4.1.2, Action 3.4.1.3, Action 3.4.4.1, and Action 3.4.4.2 are about domestic waste and aims to increase awareness raising for citizens and especially young population. Outputs of these actions are mainly the number of activities organised, number of people participated, the number of areas or streets cleaned from garbage disposals, the ratio of decomposition of solid wastes and the number of purchased garbage collection vehicles and the number of areas in which these vehicles are operating. One can infer that outputs can monitor the actions and address to the issue assertion by eliminating domestic waste as a polluter in the area.

Action 3.4.2.1, Action 3.4.2.4, Action 3.4.2.8, Action 5.1.4.6, Action 5.1.4.16, and Action 5.1.4.17 are about sewage water and its use in agriculture. Action 5.1.4.6 and Action 5.1.4.16 are about preventing environmental pollution by inspections and controlling the disposal of sewage water for new buildings. Outputs of these actions are periodical inspection reports and the number and ratio of buildings connected to public sewer. Actions' outputs are vague because what type of inspection would be done, what the inspection report would reveal or would connection of old buildings to the public sewer counts in the area is not clear. On the other hand, Action 3.4.2.1, Action 3.4.2.4, Action 3.4.2.8, and Action 5.1.4.17 are about conducting water analyses, preventing use of polluted water in irrigation, and monitoring agricultural activities polluting Tigris River. Outputs of these actions are the number of analyses, the number of polluted water sources, the number of agricultural activities polluting Tigris River and the number of fines issued for pollution. One can infer that outputs can monitor actions and address to the issue assertion to some degree.

Action 5.2.2.1, Action 5.2.3.2, and Action 5.2.3.3 are about the sand quarries and industrial waste. Actions are about prohibiting sand quarry activities, preparing, and implementing recovery plans, determining the line of businesses that can operate in Tigris Valley and identifying all sorts of pollutants in the area. Outputs of these actions are the number of quarries, businesses, activities stopped, the number of recovery works, the report of pollutant identification and the number of activities stopped based on the report. One can infer that outputs can monitor the actions partially because there is no indicator to monitor the recovery plans for affected areas.

Issues raised in focus group meetings by the community stakeholders are fully, partially, or not translated into management plan actions. For example, actions referring to domestic waste issues are directly addressing to the issue assertion by removing garbage from public areas and by increasing awareness of public. Their beneficiaries are the community, and a budget is assigned. However, some actions are partially addressing to the Issue 25.1 because they offer inspections or analyses to understand the current situation such as Action 3.4.2.1, Action 5.1.4.17, Action 5.2.3.3. Some actions do not address to the Issue 25.1 because they are just related to the topic, but it does not cover the issue assertion (Table 116).

Table 116: Results for assessment of Issue Code 25 – Water Pollution

Level of Knowledge Transfer														
	Addressed					Partially addressed							Not addressed	
Issue	Issue 25.1					Issue 25.1							Issue 25.1	
Focus Group	SM, HG					SM, HG							SM, HG	
Action	Action 3.4.1.1	Action 3.4.1.2	Action 3.4.1.3	Action 3.4.4.1	Action 3.4.4.2	Action 3.4.2.1	Action 3.4.2.4	Action 3.4.2.8	Action 5.1.4.17	Action 5.2.2.1	Action 5.2.3.2	Action 5.2.3.3	Action 5.1.4.6	Action 5.1.4.16
Budget	85.500 TRY	135.000 TRY	120.000 USD	69.800 TRY	108.900 TRY	425.000 TRY		Activity	Activity	Activity	Activity	Activity	Activity	Activity
Beneficiaries	Diyarbakir residents, Organisations, users, visitors			Young population and their custodians										
Consultants	NGOs working on environment	Relevant mukhtars, NGOs working on environment		NGOs working on environment		Dicle University		Women organisations	Dicle University	Dicle University	Dicle University	Dicle University	Dicle University, DPD of Agriculture and Forestry	
Implementers				Dicle University		DPD of Agriculture and Forestry		DPD of Agriculture and Forestry	DPD of Agriculture and Forestry	Regional Council of Conservation of Cultural Assets				
Outputs	Quantitative	Quantitative	Quantitative	Quantitative		Quantitative		Quantitative and Qualitative	Quantitative	Quantitative	Quantitative and Qualitative	Quantitative and Qualitative	Quantitative	Quantitative

B.3. Issue Family 6: Management

The sixth family comprises issue codes about the management of Hevsel Gardens. ‘Risk of Disaster’ was not raised by any community focus groups while ‘Coordination’ and ‘Migratory birds’ were raised only by the Hevsel Gardens focus group. On the other hand, the ‘Tigris Valley Project’ issue code was raised by both the Youth and the Hevsel Gardens community focus groups possibly due to its negative impact and potential management problems. Issue Code 20. Risk of Disaster was not included in the assessment since it was raised by non-community stakeholders.

Issue Code 23. Tigris Valley Project⁸

Table 117 illustrates that issue assertions for Issue Code 23. Tigris Valley Project were raised by four different focus groups. Two of them are community focus groups; the Youth and the Hevsel Gardens whereas the other two of them are non-community focus groups; the Spatial Management and the Intangible Cultural Heritage.

⁸ Within the Tigris Valley Project, it is planned to build hydroelectric power plants and regulators which threatens the biologic life in the valley and decreases the productivity in Hevsel Gardens.

Table 117: Issue Code 23 – Tigris Valley Project and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
Y	Issue 23.1: Tigris Valley Project damages the agricultural lands and production, consequently, deprives the income of producer families.	Action 5.1.4.4: Conduct regular inspections for the activities undertaken in day trip destinations in the Nature Park, conduct periodical impact analyses to stop the ones that are scientifically proven to have negative effects on the natural life.
ICH HG	Issue 23.2: Tigris Valley Project threatens agricultural production in Hevsel Gardens particularly because of the construction of water dams.	Action 5.1.4.1: Ensure continuity of ecological balance and biodiversity via preservation.
		Action 5.1.4.2: Preserve flora and fauna in the management plan area.
SM	Issue 23.3: Tigris Valley Project has negative impacts on the area and should be revised.	Action 5.1.4.8: Prevent damaging, burning, and chopping of vegetation, especially in shrubbery and reed fields within the Nature Park.
		Action 5.1.4.14: Mandating fine agricultural practices in the fields of the Nature Park within the management plan area.

Action 5.1.4.4 is associated with Issue 23.1 raised by the Youth community focus group whereas Action 5.1.4.1 and Action 5.1.4.2 are associated with Issue 23.2 raised by the Hevsel Gardens community focus group and the Intangible Cultural Heritage non-community focus group. On the other hand, Issue 23.3 is raised by non-community focus group and associated with Action 5.1.4.8 and Action 5.1.4.14.

Table 118: Verifying connections for Action 5.1.4.1, Action 5.1.4.2, Action 5.1.4.4, Action 5.1.4.8, and Action 5.1.4.14

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.1.4.4: Conduct regular inspections for the activities undertaken in day trip destinations in the Nature Park, conduct periodical impact analyses to stop the ones that are scientifically proven to have negative effects on the natural life.	Y Local Associations DMM Departments	Activity	No beneficiaries	"DMM Parks, Gardens and Green Areas Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"; "Dicle University"; Relevant departments of the Ministry of Agriculture and Forestry	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"
Action 5.1.4.1: Ensure continuity of ecological balance and biodiversity via preservation.	ICH HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry;	Activity	No beneficiaries	"DMM Parks, Gardens and Green Areas Directorate"	"Dicle University Department of Biology"; "Dicle University Center for Environmental Studies"; "XV. Regional Directorate of Agriculture and Forestry"; "DMM Environmental Protection and

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
	Dicle University Faculty of Agriculture;				Development Directorate"
Action 5.1.4.2: Preserve flora and fauna in the management plan area.	Chamber of Architects Diyarbakir Branch	Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"; "DMM Parks, Gardens and Green Areas Directorate"	"Dicle University Department of Biology"; "Dicle University Center for Environmental Studies"; "XV. Regional Directorate of Agriculture and Forestry"; "DMM Environmental Protection and Development Directorate"
Action 5.1.4.8: Prevent damaging, burning, and chopping of vegetation, especially in shrubbery and reed fields within the Nature Park.	SM	Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "DMM Parks, Gardens and Green Areas Directorate"; "Mesopotamia Ecology Movement"; "Diyarbakir Chamber of Agriculture Association"; "Dicle University"	"DMM Environmental Protection and Development Directorate"; "DPD of Environment and Urbanization"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"; Relevant departments of the Ministry of Agriculture and Forestry
Action 5.1.4.14: Mandate fine agricultural practices in the fields of the Nature Park within the management plan area.		Activity	No beneficiaries	"DMM Parks, Gardens and Green Areas Directorate"; "DMM Construction and Urbanization Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"; "Dicle University"	"XV. Regional Directorate of Agriculture and Forestry"; "DMM Environmental Protection and Development Directorate"

All of the action are defined as an activity, that's why beneficiaries are not defined, and budget is not assigned to them. Action 5.1.4.4 addresses to Issue 23.1 raised by the Youth community focus group. However, there is no connection between actors of the management plan and the focus group. Nevertheless, due to the similarity between issue assertions, as one of the consultants of Action 5.1.4.4, Dicle University who might be informed by one of its faculties; Faculty of Agriculture who participated in the Hevsel Gardens focus

group discussions, and as another consultant, DPD of Agriculture and Forestry participated focus group discussions can also contribute transferring knowledge to the process.

Action 5.1.4.1 and Action 5.1.4.2 correspond to Issue 23.2 raised by the Hevsel Gardens community focus group and an implementer of both actions is DPD of Agriculture and Forestry who participated focus group discussions which means that this actor can transfer knowledge from community to the implementation process of actions.

Action 5.1.4.8 and Action 5.1.4.14 address to the Issue 23.3 raised by the Spatial Management non-community focus group. One of the consultants of these actions is Dicle University and one of the implementers of these actions is the regional directorate of the Ministry of Agriculture and Forestry. One can infer that both actors can be informed by their departments participated in the Hevsel Gardens focus group meeting.

Table 119: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 23.1: Tigris Valley Project damages the agricultural lands and production, consequently, deprives the income of producer families.	Action 5.1.4.4: Conduct regular inspections for the activities undertaken in day trip destinations in the Nature Park, conduct periodical impact analyses to stop the ones that are scientifically proven to have negative effects on the natural life.	6 monthly periodical inspection reports
Issue 23.2: Tigris Valley Project threatens agricultural production in Hevsel Gardens particularly because of the construction of water dams.	Action 5.1.4.1: Ensure continuity of ecological balance and biodiversity via preservation.	Number of activities carried out for the preservation of ecologic balance and bio-diversity; Number of institutions and organizations participated in those activities; Result reports of those activities
	Action 5.1.4.2: Preserve flora and fauna in the management plan area.	Number of activities carried out for the preservation of flora and fauna; Number of institutions and organizations participated in those activities; Result reports of those activities
Issue 23.3: Tigris Valley Project has negative impacts on the area and should be revised.	Action 5.1.4.8: Prevent damaging, burning, and chopping of vegetation, especially in shrubbery and reed fields within the Nature Park.	Number of experts based at Nature Park Floral Pollution Inspection Committee; Periodical inspection reports
	Action 5.1.4.14: Mandate fine agricultural practices in the fields of the Nature Park within the management plan area.	Ratio of the agricultural fields in the Nature Park within the management plan area in which fine agricultural practices are implemented

Issue 23.1 states that Tigris Valley Project damages the agricultural lands and decreases production and thereby deprives the income of producer families. Issue 23.2 adds up to the first issue assertion by diagnosing the reason as the construction of water dams. Issue 23.3, on the other hand, criticises the project and suggests a revision.

Action 5.1.4.4 is about controlling day trip destinations within Tigris Valley and stopping them if they are harmful to natural life. Output of this action is 6 monthly inspection reports. Since the content of the report is unknown, it is hard to make inferences about whether it can monitor the action or not.

Action 5.1.4.1 and Action 5.1.4.2 addressing to the Issue 23.2 are about preserving biological diversity, flora, and fauna in the area. Outputs of these actions are the number of activities regarding preservation, the number of institutions and organisations participated in those activities and the result report of these activities. However, it is not clear what those activities are, how they would be organised and for whom. Therefore, one can infer that outputs are inadequate to monitor the actions and they poorly address to the issue assertion. Action 5.1.4.8 about stopping burning and chopping vegetation within the Tigris Valley and Action 5.1.4.14 about mandating fine agricultural practices within the Tigris Valley are addressing to the Issue 23.3. Outputs of Action 5.1.4.8 are the number of experts in the inspection committee and inspection reports. One can infer that these indicators are vague to monitor the action. Output of Action 5.1.4.14 is the ratio of the fields where fine agriculture practices are applied within Tigris Valley, which can monitor the action but does not address to the issue assertion.

Issue assertions raised focus group meetings are partially translated into management plan actions. The main factor is that any of them do not have a budget assigned and any of them do not cover the content of the issue assertions but there is a connection between focus group and implementers and/or consultants.

Table 120: Results for assessment of Issue Code 23 – Tigris Valley Project

Level of Knowledge Transfer							
	Addressed	Partially addressed				Not addressed	
Issue		Issue 23.1	Issue 23.2		Issue 23.3		
Focus Group		Y	ICH, HG		SM		
Action		Action 5.1.4.4	Action 5.1.4.1	Action 5.1.4.2	Action 5.1.4.8	Action 5.1.4.14	
Budget		Activity	Activity	Activity	Activity	Activity	
Beneficiaries							
Consultants		Dicle University, DPD of Agriculture and Forestry			Dicle University		
Implementers			DPD of Agriculture and Forestry		DPD of Agriculture and Forestry		
Outputs		Qualitative	Quantitative and qualitative		Quantitative & qualitative	Quantitative	

Issue Code 15. Coordination

Table 121 illustrates that issue assertions were raised by only the Hevsel Gardens focus group for Issue Code 15. Coordination.

Table 121: Issue Code 15 – Coordination and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
HG	Issue 15.1: Due to the large number of authorised institutions in the area, different projects planned by different authorities without coordination are damaging the natural structure of Hevsel Gardens and Tigris Valley.	Action 5.2.1.1: Prepare and approve the Tigris River and Basin Preservation Plan, the top-scale comprehensive plan for the Tigris Valley.
HG	Issue 15.2: Coordination between authorities should be provided to solve pollution and production problems.	Action 5.2.2.3: Monitor activities done or planned for the management plan area by different institutions, prevent them from damaging the heritage site, buffer zones and the Tigris River flora and fauna.

Issue 15.1 is addressed by Action 5.2.1.1 whereas Issue 15.2 is addressed by Action 5.2.2.3.

Table 122: Verifying connections for Action 5.2.1.1, and Action 5.2.2.3

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.2.1.1: Prepare and approve the Tigris River and Basin Preservation Plan, the top-scale comprehensive plan for the Tigris Valley.	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry; Dicle University	200.000 TRY Based on the Iller Bank 2013 master plan preparation price list, 200.000 TRY is attained for the Tigris River and Basin Preservation Plan. It includes expenses of field studies, expertise costs, travel and accommodation costs and stationary costs.	All institutions; Companies; Producers in the Tigris Valley Protection Area	"TMMOB Diyarbakir Provincial Coordination Board"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; GABB; "Mesopotamia Ecology Movement"	"DMM Construction and Urbanization Directorate"; "Firat – Dicle 2nd Lower Basin Management Board"; "DPD of Environment and Urbanization"
Action 5.2.2.3: Monitor activities done or planned for the management plan area by different institutions, prevent them from damaging the heritage site, buffer zones and the Tigris River flora and fauna.	Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	Activity	No beneficiaries	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "Mesopotamia Ecology Movement"; GABB; "City Council"; "TMMOB Diyarbakir Provincial Coordination Board"	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"; "DPD of Environment and Urbanization"

Action 5.2.1.1 is a project called “*Tigris River and Basin Preservation Plan*” with a budget of 200.000 TRY. Beneficiaries of the action are the producers in the Tigris Valley Protection Area. One can infer that they are represented by farmers in the focus group. However, there is no connection between Hevsel Gardens focus group and neither consultants nor implementers of the action.

Action 5.2.2.3 is an activity and there is no connection between focus group and management plan actors. Even though both actions aim to provide coordination between institutions on Tigris Valley, which is a natural and agricultural area, it is interesting that many of the consultants and implementers are the urbanization directorates of city and central level authorities. One can infer that it would be expected to include agriculture and forestry directorates of city and central level authorities.

Table 123: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 15.1: Due to the large number of authorised institutions in the area, different projects planned by different authorities without coordination are damaging the natural structure of Hevsel Gardens and Tigris Valley.	Action 5.2.1.1: Prepare and approve the Tigris River and Basin Preservation Plan, the top-scale comprehensive plan for the Tigris Valley.	Tigris River and Basin Preservation Plan; Tigris River and Basin Preservation Plan Report
Issue 15.2: Coordination between authorities should be provided to solve pollution and production problems.	Action 5.2.2.3: Monitor activities done or planned for the management plan area by different institutions, prevent them from damaging the heritage site, buffer zones and the Tigris River flora and fauna.	Decisions and policies applied for the preservation of the flora and fauna; Precautions taken to decrease human pressure on the protected areas

Issue 15.1 is a problem statement by the community stakeholders about coordination complexity. The problem is external to community stakeholders due to institutional structures. Issue 15.2 suggests solving the problem of lack of coordination between authorities working on Hevsel Gardens. Due to this chaos, neither pollution, nor production problems still exist according to Hevsel Gardens producers. Actions aims firstly to provide a top-scale plan to bring all the authorities under one umbrella and secondly to monitor the previous, current, or future activities on Hevsel Gardens in order to protect the valley.

Action 5.2.1.1 aims to provide a top-scale plan and to solve the coordination problem between governmental bodies through this holistic plan. Action 5.2.2.3 aims to monitor every single activity on Tigris River in order to protect the habitat. Both actions are corresponding to the issues raised by community stakeholders.

Comparison of monitoring outputs and actions reveals that monitoring outputs for Action 5.2.1.1 are solid, for instance, the Tigris River and Basin Preservation Plan and its report. On the other hand, outputs for Action 5.2.2.3 are vague in terms of description, for example, decisions and policies for the preservation of the flora and fauna, or precautions that need to be taken in the protected areas to decrease human pressure. Any of these outputs are not clear.

Outputs and issues are partially corresponding, for example management of coordination between different interests may be provided by a single plan covering the area. However, human pressure problem seems to come out of blue because there is no such statement in the issue assertions.

Table 124: Results for assessment of Issue Code 15 – Coordination

Level of Knowledge Transfer				
	Addressed	Partially addressed		Not addressed
Issue		Issue 15.1	Issue 15.2	
Focus Group		HG	HG	
Action		Action 5.2.1.1	Action 5.2.2.3	
Budget		200.000 TRY	Activity	
Beneficiaries		Producers		
Consultants				
Implementers				
Outputs		Qualitative	Qualitative	

Issue Code 18. Migratory birds

Table 125 illustrates that issue assertions for Issue Code 18. Migratory birds were raised by only the Hevsel Gardens community focus group. One of the management plan actions do not refer to a specific issue assertion raised by any focus groups but it is associated with the content of the Issue Code 18. Migratory birds.

Table 125: Issue Code 18 – Migratory birds and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
	No specific issue assertions	Action 5.1.4.12: Detect properties, numbers, feeding, hosting, and breeding grounds of water plants and aquatic systems; mammals; local and migratory birds; reptiles and amphibian creatures; monitor wildlife, cast out threatening elements within the management plan area.
HG	Issue 18.1: There is no prohibition on hunting, and this is a major problem for migratory birds.	Action 5.1.4.11: Prevent all sorts of illegal hunting activities within the area.
HG	Issue 18.2: Creating a birdwatching route for migratory birds might support the tourism sector in Hevsel Gardens.	No actions

Issue 18.1 is addressed by Action 5.1.4.11 while Issue 18.2 about a suggestion to create a birdwatching route to support the tourism sector in Hevsel Gardens is not addressed by any actions. On the other hand, Action 5.1.4.12 about creating a fauna and flora database within the management plan area is not associated with any specific issue assertions but it is related to migratory birds.

Table 126: Verifying connections for Action 5.1.4.12 and 5.1.4.11

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.1.4.12: Detect properties, numbers, feeding, hosting, and breeding grounds of water plants and aquatic systems; mammals; local and migratory birds; reptiles and amphibian creatures; monitor wildlife, cast out		Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"; "DMM Parks, Gardens and Green Areas Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates";	"Dicle University"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
threatening elements within the management plan area.				"Mesopotamia Ecology Movement"; GABB	
Action 5.1.4.11: Prevent all sorts of illegal hunting activities within the area.	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch	Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "DMM Parks, Gardens and Green Areas Directorate"; "Yenisehir and Sur Municipalities Parks and Gardens Directorates"; "Dicle University"	Relevant departments of the Ministry of Agriculture and Forestry

Action 5.1.4.11 and Action 5.1.4.12 are defined as an activity, therefore there is no beneficiaries defined and no budget assigned for these actions. One of the consultants of Action 5.1.4.11 and the only implementer of Action 5.1.4.12 is Dicle University. One can infer that this actor would be informed about focus group discussion by its Faculty of Agriculture who participated in the Hevsel Gardens focus group meeting. On the other hand, the implementer of Action 5.1.4.11 is the relevant departments of Ministry of Agriculture and Forestry. DPD of Agriculture and Forestry as the local directorate of Ministry of Agriculture and Forestry participated in focus group discussions, therefore, one can expect that this actor can inform the implementer of this action.

Table 127: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue Code	Action 5.1.4.12: Detect properties, numbers, feeding, hosting, and breeding grounds of water plants and aquatic systems; mammals; local and migratory birds; reptiles and amphibian creatures; monitor wildlife, cast out threatening elements within the management plan area.	Number of experts in the management plan area ecosystem inspection committee; Management plan area ecosystem inspection and inventory reports
Issue 18.1: There is no prohibition on hunting, and this is a major problem for migratory birds.	Action 5.1.4.11: Prevent all sorts of illegal hunting activities within the area.	Number of illegal hunting activities in the area; Number of awareness raising activities organised for hunters

Issue 18.1 states that the lack of prohibitions on hunting creates a major problem for migratory birds. Action 5.1.4.11 addressing to this issue assertion aims to prevent all sorts of illegal hunting activities. Outputs of the action are the number of illegal hunting activities and the number of awareness raising activities for hunters. One can infer that the action statement is generic, and the outputs can only monitor the current situation, but not the implementation of action.

Action 5.1.4.12 addressing to the issue code in general, is about creating inventory of the living organisms including migratory birds in the area and eliminating the current threats. Outputs of the action are the number experts working in the ecosystem inspection committee and the inspection and inventory reports. One can infer that outputs can partially monitor the action because there are not indicators regarding eliminating the threats in the area.

Issue 18.2 is not transferred to any management plan actions. Issue 18.1 is transferred into Action 5.1.4.11 in terms of both the content and the relations between actors. On the other hand, Action 5.1.4.12 partially addresses to the issue because it focuses on creating inventory in lieu of eliminating threats.

Table 128: Results for assessment of Issue Code 18 – Migratory Birds

Level of Knowledge Transfer			
	Addressed	Partially addressed	Not addressed
Issue	Issue 18.1		Issue 18.2
Focus Group	HG		HG
Action	Action 5.1.4.11	Action 5.1.4.12	
Budget	Activity	Activity	
Beneficiaries			
Consultants	Dicle University		
Implementers	DPD of Agriculture and Forestry	Dicle University	
Outputs	Quantitative	Qualitative	

C. Heritage Site

Issue assertions for the Heritage Site were raised by only two community stakeholders: the Hevsel Gardens and the people with Disabilities focus groups who respectively raised issues about ‘Holistic Planning’ and ‘Accessibility’.

C.1. Issue Family 7: Spatial Planning

The seventh family of issues are related to the spatial planning of Heritage Site. Issues related to the ‘Kirkklar Mountain Project’ and ‘Tourism’ were raised by non-community focus groups and were not included in the assessment.

Issue Code 26. Accessibility

Table 129 illustrates that issue assertions were raised by three different focus groups. Two of them are community focus groups for Issue Code 26. Accessibility; the Hevsel Gardens and the people with Disabilities whereas one of them is non-community focus group; the Spatial Management.

Table 129: Issue Code 26 – Accessibility and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
HG SM	Issue 26.1: The site needs transportation planning due to problems related to density in traffic.	Action 3.4.3.1: Organise activities in the site management area to encourage the use of alternative means of transport like bicycles, reduce the density of motor vehicles, carry out awareness raising activities in state institutions, schools and community centres to increase responsiveness.
		Action 5.6.1.1: Prepare Site Management Area Transportation Master Plan.
		Action 5.6.1.2: Locate bus stops, taxi stops and taxi parking lots in the management plan area, remove bus stops and bus parking lots to out of Surici area.
		Action 5.6.1.3: Conduct spatial arrangements to ensure that the primary mean of transportation in Surici area and in Hevsel Gardens is walking, facilitate tour busses to provide motorized access to the heritage site.
		Action 5.6.1.4: Prepare transportation and circulation plans for pedestrian and cyclists in the management plan area to encourage them.
		Action 5.6.1.7: Design visitor routes in Surici area and Hevsel Gardens, provide parking lots for tour busses.
		Action 5.6.1.8: Evaluate transportation investments that may affect the management plan area.
D	Issue 26.2: Accessibility for disabled people to participate effectively in social life is a need in the whole site, especially parks and open green spaces.	Action 3.6.1.3: Conduct spatial arrangements in the area to make public spaces disabled-friendly and easy to access for women. Organise awareness raising activities ensuring the right and equality of access to public spaces for disadvantaged groups, people with disabilities and women.

Issue 26.2 is addressed by Action 3.6.1.3 whereas Issue 26.1 is addressed by other seven management plan actions shown in Table 129.

Table 130: Verifying connections for Action 3.4.3.1, Action 5.6.1.1-4, Action 5.6.1.7-8, and Action 3.6.1.3

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 3.4.3.1: Organise activities in the site management area to encourage the use of alternative means of transport like bicycles, reduce the density of motor vehicles, carry out awareness raising activities in state institutions, schools and community centres to increase responsiveness.	SM HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets; DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture;	1.500.000 TRY The budget is determined based on similar pedestrianization projects. From planning to the implementation of the project, it includes the arrangement of roads, warning-indicator plates, bicycle-pedestrian routes, the arrangement of bus parking lots and motor vehicle traffic limitation works.	Visitors; Residents; Users of the management plan area; Businesses; Institutions	"Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"; "TMMOB Diyarbakir Provincial Coordination Board"	"DMM Construction and Urbanization Directorate"; "DMM Environmental Protection and Development Directorate"; "DMM Transportation Directorate"; "Sur Municipality"
Action 5.6.1.1: Prepare Site Management Area Transportation Master Plan.	Chamber of Architects Diyarbakir Branch	250.000 TRY Action with budget	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"
Action 5.6.1.2: Locate bus stops, taxi stops and taxi parking lots in the management plan area, remove bus stops and bus parking lots to out of Surici area.		Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"
Action 5.6.1.3: Conduct spatial arrangements to ensure that the primary mean of transportation in Surici area and in Hevsel Gardens is walking, facilitate tour busses to provide motorized access to the heritage site.		3.000.000 TRY No budget explanation	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.6.1.4: Prepare transportation and circulation plans for pedestrian and cyclists in the management plan area to encourage them.		250.000 TRY No budget explanation	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"
Action 5.6.1.7: Design visitor routes in Surici area and Hevsel Gardens, provide parking lots for tour busses.		Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"
Action 5.6.1.8: Evaluate transportation investments that may affect the management plan area.		Activity	No beneficiaries	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"	"DMM Transportation Directorate"
Action 3.6.1.3: Conduct spatial arrangements in the area to make public spaces disabled-friendly and easy to access for women. Organise awareness raising activities ensuring the right and equality of access to public spaces for disadvantaged groups, people with disabilities and women.	D Local Associations; DMM Departments	4.000.000 EUR 2.000.000 euro for transformation of tourism information offices, visitor centres, museums, roads, sidewalks and squares to enable access for people with disabilities. 2.000.000 euro for the pilot project of disabled friendly Inner Castle.	Unstated	Relevant NGOs; "Sur Municipality Construction and Urbanization Directorate"	"DMM Social Services Directorate"; "DMM Construction and Urbanization Directorate"

Action 3.4.3.1 is one of the two actions of a project called "*Developing alternative means of transportation and forming visitor routes*" with a budget of 1.500.000 TRY. Beneficiaries of the action are visitors,

residents, and the users of the area. However, there is no connection between focus group stakeholders and consultants or implementers.

Action 5.6.1.1, Action 5.6.1.3, and Action 5.6.1.4 are actions with budget; therefore, budget is not explained, and beneficiaries are not defined. However, any of their consultants or implementers are not related to community stakeholders.

Action 5.6.1.2, Action 5.6.1.7, and Action 5.6.1.8 are defined as activity and therefore beneficiaries are not defined, and budget is not assigned. Besides, there is no connection between community stakeholders and neither consultants nor implementers for all the actions.

Action 3.6.1.3 is a project called “*Disable friendly public spaces and culture heritages*” with a budget of 4.000.000 Euro. Half of the budget is for providing accessible free tourism information offices, visitor centres, museums, sidewalks and squares, and roads for disabled people. The other half of the budget is for a pilot project application for an obstacle free district including audible warning systems, embossed maps, and direction signs for the visually impaired, reorganization of squares with ramps and sidewalks, provision of handicapped elevators for City Walls and multi-storey public spaces to provide access for the handicapped people. Beneficiaries of the action are unstated, but one can assume that they would be the community who lives, works, or uses the area. Relevant NGOs are specified as consultants in Action 3.6.1.3, but it is not clear that whether those NGOs are the local associations attended to community focus group meetings. One can infer that community interests might be represented by the DMM Social Services Directorate, an implementer of Action 3.6.1.3, which attended the focus group discussion for people with disability but there is no direct community involvement other than through this municipality actor. Implementers in this case are mainly the Diyarbakir Metropolitan Municipality departments while other municipalities are acting as consultants.

Table 131: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 26.1: The site needs transportation planning due to problems related to density in traffic.	Action 3.4.3.1: Organise activities in the site management area to encourage the use of alternative means of transport like bicycles, reduce the density of motor vehicles, carry out awareness raising activities in state institutions, schools and community centres to increase responsiveness.	Number of bicycle rental points in the management plan area; Number and range of ongoing awareness activities; The length of disabled free pedestrian paths; Number of people who choose cycling as means of transport
	Action 5.6.1.1: Prepare Site Management Area Transportation Master Plan.	Site Management Area Transportation Master Plan and its report
	Action 5.6.1.2: Locate bus stops, taxi stops and taxi parking lots in the management plan area, remove bus stops and bus parking lots to out of Surici area.	Number of located bus stops and bus parking lots; Number of located taxi stops and taxi parking lots
	Action 5.6.1.3: Conduct spatial arrangements to ensure that the primary mean of transportation in Surici area and in Hevsel Gardens is walking, facilitate tour busses to provide motorized access to the heritage site.	Number of streets where precautions are taken to limit the vehicle traffic; Number of streets where pedestrian and bicycle paths are safe within the management plan area;

Issue	Action	Output
		Number of tour busses operating in the heritage site
	Action 5.6.1.4: Prepare transportation and circulation plans for pedestrian and cyclists in the management plan area to encourage them.	Length of the bicycle routes; Number of streets with bicycle routes; Number of streets with new pedestrian paths; Length of the new pedestrian paths
	Action 5.6.1.7: Design visitor routes in Surici area and Hevsel Gardens, provide parking lots for tour busses.	Mapping visitor routes in Surici area and Hevsel Gardens; Expanding parking lots for tour busses
	Action 5.6.1.8: Evaluate transportation investments that may affect the management plan area.	Evaluation reports of the investments
Issue 26.2: Accessibility for disabled people to participate effectively in social life is a need in the whole site, especially parks and open green spaces.	Action 3.6.1.3: Conduct spatial arrangements in the area to make public spaces disabled-friendly and easy to access for women. Organise awareness raising activities ensuring the right and equality of access to public spaces for disadvantaged groups, people with disabilities and women.	Number of public spaces transformed into disabled friendly places; Length of the pedestrian paths covered with tracking bricks; Number of traffic lights with sound warning system; Number of disadvantaged groups who use public spaces

Issue 26.1 is a request of transportation planning for the site due to dense traffic problems whereas Issue 26.2 is another request of a disabled friendly environment in the whole site, especially in parks and open green spaces.

Action 3.4.3.1 aims to increase the use of alternative means of transport like bicycles, reducing the density of motor vehicles via a pedestrianization project. Outputs of the action are the number of bicycle rental points, the number of awareness raising activities, the length of disabled free pedestrian paths, and the number of people who cycles in the area. One can infer that outputs can monitor the action in terms of the use of bicycles, but they do not monitor the decrease in the density of motor vehicles.

Action 5.6.1.1 is about preparing a transportation master plan for the area and Action 5.6.1.3 is about conducting spatial arrangements to pedestrianize the Surici area and Hevsel Gardens whereas Action 5.6.1.4 is about preparing transportation circulation plans. Output of Action 5.6.1.1 is the Transportation Master Plan and its report which can monitor the action clearly, while outputs of Action 5.6.1.3 and Action 5.6.1.4 are generic like the length or the number of pedestrianised streets and bicycle routes, and the number of streets in which vehicle traffic is limited but which streets would be pedestrianised or have cycling routes is not stated. One can infer that outputs can monitor the action in theory, but it is questionable in practice since there is not geographical reference.

Action 5.6.1.2 is about removing the taxi and bus stops out of Surici area and determining their locations, Action 5.6.1.7 is about designing visitor routes in Surici area and Hevsel Gardens, and Action 5.6.1.8 aims to evaluate transportation investments for the site. Outputs of Action 5.6.1.2 are the number of located bus and taxi stops and parking lots. One can infer that they are vague indicators to monitor the action since the total number of them is unknown. Outputs of Action 5.6.1.7 are the mapping studies for visitor routes and

expansion of parking lots for tour busses. One can infer that if mapping studies are considered as the final product of the process, outputs can monitor the action. Outputs of Action 5.6.1.8 are the evaluation reports which is a clear indicator to monitor the action.

Action 3.6.1.3 proposes spatial arrangements to make public spaces disabled friendly and organising awareness raising activities about the equality of access to public spaces. Outputs of the action are the number of transformed public spaces, the length of pedestrian paths with tracking bricks, the number of traffic lights with sound system, and the number of disadvantaged groups using public spaces. One can infer that the number of streets, pedestrian paths and traffic lights can monitor the action whereas counting the number of disadvantaged groups using public spaces is problematic in terms of how to decide who they are and what to count. However, outputs of the action address to the issue assertion since the request is a disabled friendly heritage site.

Issue 26.1 and Issue 26.2 are fully transferred into, respectively, Action 3.4.3.1 and Action 3.6.1.3, however, rest of the actions are partially or not addressing to the issue assertions because of the connections between actors which creates the possibility of implementing actions regardless of what community wants. However, phrases like public places, streets are non-place specific which creates an uncertainty of location for all actions.

Table 132: Results for assessment of Issue Code 26 – Accessibility

Level of Knowledge Transfer								
	Addressed		Partially addressed			Not Addressed		
Issue	Issue 26.1	Issue 26.2	Issue 26.1			Issue 26.1		
Focus Group	HG, SM	D	HG, SM			HG, SM		
Action	Action 3.4.3.1	Action 3.6.1.3	Action 5.6.1.1	Action 5.6.1.3	Action 5.6.1.4	Action 5.6.1.2	Action 5.6.1.7	Action 5.6.1.8
Budget	1.500.000 TRY	4.000.000 EUR	250.000 TRY	3.000.000 TRY	250.000 TRY	Activit y	Activit y	Activit y
Beneficiaries	Visitors, residents, users							
Consultants		Relevant NGOs						
Implementers		DMM Social Services Directorate						
Outputs	Quantitative	Quantitative	Qualitative	Quantitativ e	Quantitativ e	Quanti tative	Qualit ative	Qualit ative

Issue Code 30. Holistic Planning

Table 133 illustrates that issue assertions for Issue Code 30. Holistic Planning were raised by four different focus groups. However, only one of them is community focus group; the Hevsel Gardens whereas others are non-community focus groups; the Intangible Cultural Heritage, the Spatial Management, and the Heritage Management.

Table 133: Issue Code 30 – Holistic Planning and associated Management Plan Actions

Focus Group Acronym and Issue Assertions		Management Plan Actions
ICH	Issue 30.1: Intangible cultural heritage should be assessed by a holistic approach to be able to reach different elements of it such as artisan works, local cuisine, tales, epics, plays, endemic species and spatial development based on them.	No actions
HG	Issue 30.2: Hevsel Gardens should be assessed by its natural and social structure by keeping its agricultural heritage united.	Action 2.1.1.4: Update the main visitor route which is limited to Surici area to access to the Hevsel Gardens to increase the recognition of it. Subsidise agritourism applications that do not threaten agricultural production process as a way of revenue diversification.
		Action 5.2.1.2: Prepare Cultural Landscape Impact Assessment reports for the heritage site for macro projects such as the “Tigris Valley Hydroelectric Power Station Project”, “Ministry of Environment and Urbanization Housing Stock Area Decisions”, “Kirkklar Mountain Project”, “Tigris Valley Recreation Area Project”, “Surici Area Disaster Master Plan”, etc. and implement revisions of these projects.
SM HM	Issue 30.3: Due to the existence of many different projects on the heritage site, a holistic approach is needed to protect the multi-identity of the site.	Action 1.1.1.1: Identify principles and standards for conservation and restoration practices.
		Action 1.1.1.2: Conduct impact assessment of previous conservation plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.
		Action 5.2.1.3: Conduct impact assessment of previous master plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.

Issue 30.1 raised by non-community focus group, is not addressed by any actions reported in the management plan whereas Issue 30.3 raised by non-community focus groups, is associated with Action 1.1.1.1, Action 1.1.1.2, and Action 5.2.1.3. The only issue assertion raised by community focus group is Issue 30.2 raised by the Hevsel Gardens focus group, and it is addressed by Action 2.1.1.4 and Action 5.2.1.2.

Table 134: Verifying connections for Action 2.1.1.4, Action 5.2.1.2, Action 1.1.1.1-2, and Action 5.2.1.3

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 2.1.1.4: Update the main visitor route which is limited to Surici area to access to the Hevsel Gardens to increase the recognition of it. Subsidise agritourism applications that do not threaten agricultural production process	HG Farmers; Sarmasik Association; DMM Departments; Regional Council of Conservation of Cultural Assets;	Activity	No beneficiaries	"Dicle University"; "Chamber of Commerce and Industry Diyarbakir Branch"; "Karacadag Development Agency"; GABB	"DMM Culture and Tourism Affairs Directorate"; "DMM Transportation Directorate"; "Karacadag Development Agency"; "DPD of Agriculture and Forestry"; "DPD of Culture and Tourism";

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
as a way of revenue diversification.	DPD of Agriculture and Forestry; Dicle University Faculty of Agriculture; Chamber of Architects Diyarbakir Branch				"Mesopotamia Ecology Movement"
Action 5.2.1.2: Prepare Cultural Landscape Impact Assessment reports for the heritage site for macro projects such as the "Tigris Valley Hydroelectric Power Station Project", "Ministry of Environment and Urbanization Housing Stock Area Decisions", "Kirkklar Mountain Project", "Tigris Valley Recreation Area Project", "Surici Area Disaster Master Plan", etc. and implement revisions of these projects.		Activity	No beneficiaries	"TMMOB Diyarbakir Provincial Coordination Board"; "Mesopotamia Ecology Movement"; "City Council"; "DPD of Environment and Urbanization"	DMM Municipal Council; "DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"
Action 1.1.1.1: Identify principles and standards for conservation and restoration practices.	SM HM	200.000 TRY Based on the Iller Bank 2013 master plan preparation price list, a budget of 200.000 TRY is attained for developing the proposed guide for an area of 132 hectares within the management plan area. It includes expenses of field studies, expertise costs, travel and accommodation costs and stationary costs.	Institutions; Professionals working on conservation and restoration; Individuals or institutions interested in conservation and restoration projects in the management plan area	"DPD of Culture and Tourism"; "Regional Directorate of Foundations"; "Chamber of Architects Diyarbakir Branch"; "Dicle University Center for Environmental Studies"; "Dicle University Faculty of Architecture"; GABB	"Diyarbakir Surveys and Monuments Directorate"; "Regional Council of Conservation of Cultural Assets"; "DMM KUDEB Directorate"
Action 1.1.1.2: Conduct impact assessment of previous conservation plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.		200.000 TRY No budget explanation	No beneficiaries	"DPD of Environment and Urbanization"; "TMMOB Diyarbakir Provincial Coordination Board"; "Mesopotamia Ecology Movement"; "City Council"	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"

Action	Focus Group	Budget	Beneficiaries	Consultants	Implementers
Action 5.2.1.3: Conduct impact assessment of previous master plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.		200.000 TRY Based on the Iller Bank 2013 master plan preparation price list, a budget of 200.000 TRY is attained for the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan. It includes expenses of field studies, expertise costs, travel and accommodation costs and stationary costs.	All institutions; Organizations; Enterprises; Producers in the management plan area	"TMMOB Diyarbakir Provincial Coordination Board"; "Mesopotamia Ecology Movement"; "City Council"; "DPD of Environment and Urbanization"; "Dicle University"	"DMM Construction and Urbanization Directorate"; "Sur Municipality Construction and Urbanization Directorate"; "Yenisehir Municipality Construction and Urbanization Directorate"

Action 2.1.1.4 and Action 5.2.1.2 are defined as activity actions which refers that the beneficiaries and the budget are unstated. Consultants of Action 2.1.1.4 include Dicle University who is expected to be informed by Dicle University Faculty of Agriculture as one of its faculties attended to the Hevsel Gardens focus group discussions. One of the implementers of the action is DPD of Agriculture and Forestry who attended the focus group discussions as well. However, there is no relationship between community stakeholders and actors of management plan action for Action 5.2.1.2.

Action 1.1.1.1 is a project action named "*Preparing Principles and Standards Manual for Conservation and Restoration Practices*" with a budget of 200.000 TRY. Beneficiaries include individuals interested in restoration projects who might involve the community who wants to restore their houses. Action 1.1.1.2 is an action with budget and that's why beneficiaries are not defined but 200.000 TRY is assigned as the action budget. Action 1.1.1.3 is another project action called "*Integration of masterplans for the site*" with a budget of 200.000 TRY. Beneficiaries include organisations and producers in the management plan area. However, the issue assertion is raised by non-community focus group, and so implementers or consultants of the actions are not assessed since Issue 30.3 differs from Issue 30.2 raised by community focus group.

Table 135: Issue assertions from focus groups with corresponding actions and outputs

Issue	Action	Output
Issue 30.2: Hevsel Gardens should be assessed by its natural and social structure by keeping its agricultural heritage united.	Action 2.1.1.4: Update the main visitor route which is limited to Surici area to access to the Hevsel Gardens to increase the recognition of it. Subsidise agritourism applications that do not threaten agricultural production process as a way of revenue diversification.	Number of visitors using the visitor routes connecting the intercity tourism route to the Hevsel Gardens and making use of Agritourism activities
	Action 5.2.1.2: Prepare Cultural Landscape Impact Assessment reports for the heritage site for macro projects such as the "Tigris Valley Hydroelectric Power Station Project",	Cultural Landscape Impact Assessment reports; Number of revisions made based on Cultural Landscape Impact Assessment reports

Issue	Action	Output
	“Ministry of Environment and Urbanization Housing Stock Area Decisions”, “Kirkklar Mountain Project”, “Tigris Valley Recreation Area Project”, “Surici Area Disaster Master Plan”, etc. and implement revisions of these projects.	
Issue 30.3: Due to the existence of many different projects on the heritage site, a holistic approach is needed to protect the multi-identity of the site.	Action 1.1.1.1: Identify principles and standards for conservation and restoration practices.	Acquisition of the document consists of principles and standards for conservation and restoration practices
	Action 1.1.1.2: Conduct impact assessment of previous conservation plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.	Impact assessment reports of previous conservation plans for the site; Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan and its report
	Action 5.2.1.3: Conduct impact assessment of previous master plans for the site, make revisions for the ones with adverse impact, prepare the Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan which assesses the area in all scales.	Impact assessment reports of previous master plans for the site; Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan and its report

Issue 30.2 suggests facilitating a holistic planning approach for Hevsel Gardens considering its natural, social and agricultural structure. Action 2.1.1.4 aims to extend the main visitor routes to Hevsel Gardens to increase the recognition of it and supporting agritourism activities to develop its economy. Outputs of this action are the number of visitors in Hevsel Gardens visiting via main routes and making the use of agritourism activities. One can infer that the outputs can monitor the action but do not address to the issue assertion. Action 5.2.1.2 is about preparing Cultural Landscape Impact Assessment reports for macro plans with an impact on Hevsel Gardens and revising them. Outputs of the action are the report of Cultural Landscape Impact Assessment and the number of revisions made. One can infer that the outputs can monitor both the actions and the issue assertion which is about application of a holistic approach in planning studies for Hevsel Gardens.

Issue 30.3 is a request to apply holistic approach to protect the multi-identity of the heritage site. Action 1.1.1.1 is about identifying principles and standards for conservation and restoration practices. Output of the action is the document of standards and principles. Action 1.1.1.2 and Action 5.2.1.3 are about assessing the existing plans for heritage site and preparing “Diyarbakir Fortress and Hevsel Gardens Management Site Conservation Plan”, and their outputs are the impact assessment reports and the conservation plan. One can infer that the outputs of all these three actions can monitor the action implementation since the outputs are the final products of the actions.

Issue assertion raised in community focus group meetings are partially translated into management plan actions regarding their content and the relationships between community stakeholders and the actors of the actions.

Table 136: Results for assessment of Issue Code 30 – Holistic Planning

Level of Knowledge Transfer							
	Addressed	Partially addressed		Not addressed			
Issue		Issue 30.2		Issue 30.1	Issue 30.3		
Focus Group		HG		ICH	SM, HM		
Action		Action 2.1.1.4	Action 5.2.1.2		Action 1.1.1.1	Action 1.1.1.2	Action 5.2.1.3
Budget		Activity	Activity		200.000 TRY	200.000 TRY	200.000 TRY
Beneficiaries					Individuals interested in restoration		Organisations, producers
Consultants		Dicle University					
Implementers		DPD of Agriculture and Forestry					
Outputs		Quantitative	Qualitative		Qualitative	Qualitative	Qualitative

Appendix IV: How to use GATE: User Guide for Audit Design

Prepare a text file composing of management plan actions, which are numbered and structured as one action per line. Save the file with .txt extension. Create a separate folder for this process since GATE cannot reopen files if the directory changes. Move the data text file and JAPE rule files into this folder and use the same folder in the future for files exported from GATE.

Open GATE



Load ANNIE by clicking on the icon on the ribbon.

Right click on the Language Resources section on the left column and select New GATE Document.

In the opening window;

Name	Type	Required	Value
collectRepositioningInfo	Boolean	✓	false
encoding	String		
markupAware	Boolean	✓	true
mimeType	String		
preserveOriginalContent	Boolean	✓	false
sourceUrl	URL	✓	file:/C:/Users/gizem/Desktop/Diyarbakir%20MPA.txt
sourceUrlEndOffset	Long		
sourceUrlStartOffset	Long		

Buttons: OK, Cancel, Help

Name your document

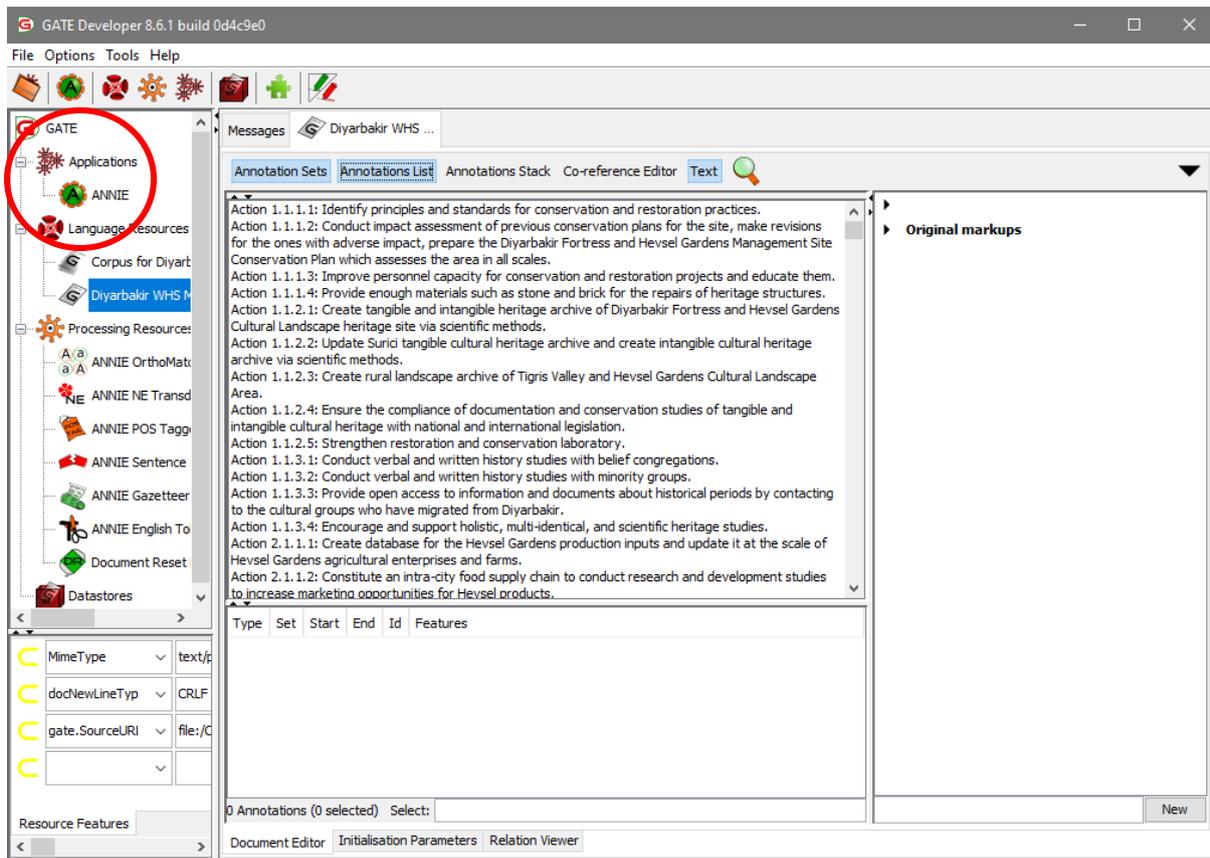
Select your text file by clicking on the file icon on the right. Click OK.

Uploaded document would be visible on the left column. Double click on the document to view it in GATE.

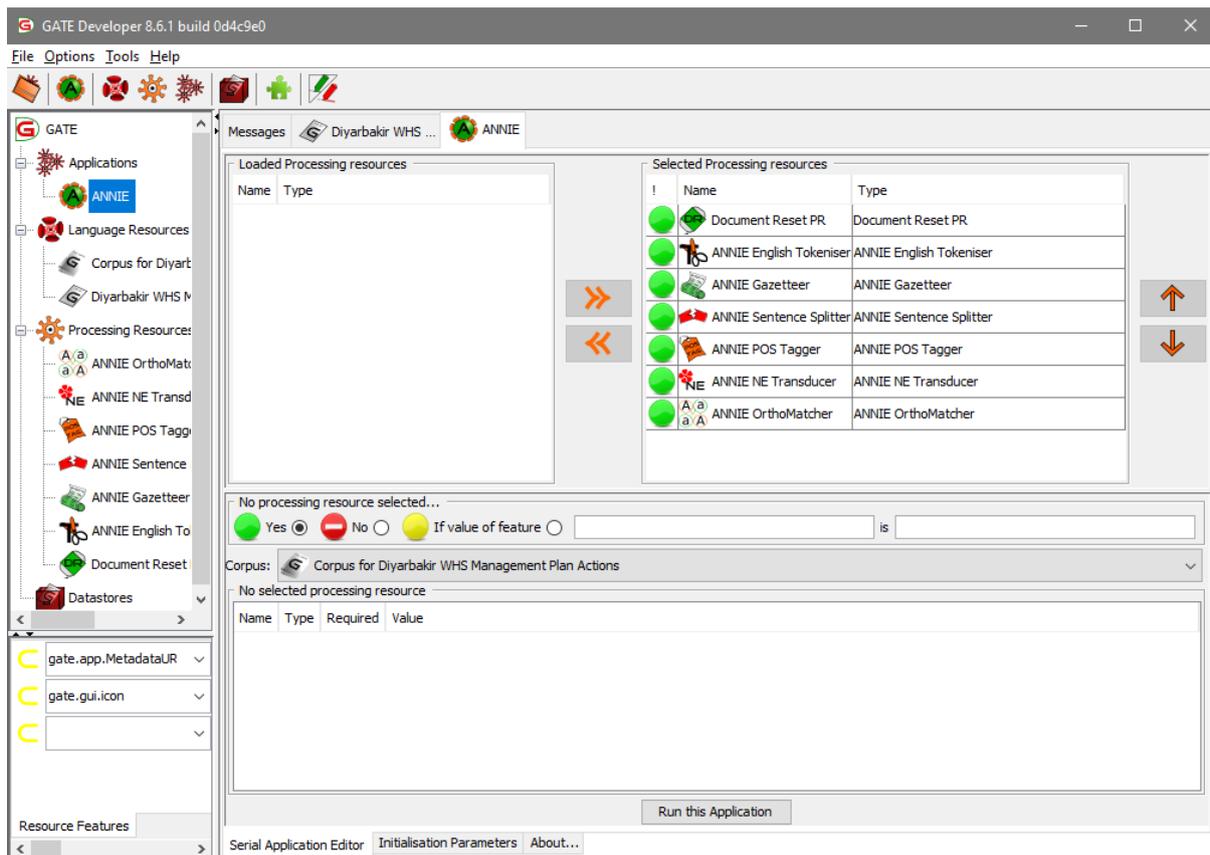
Right click on it and select New Corpus with this document.

Document is ready to use.

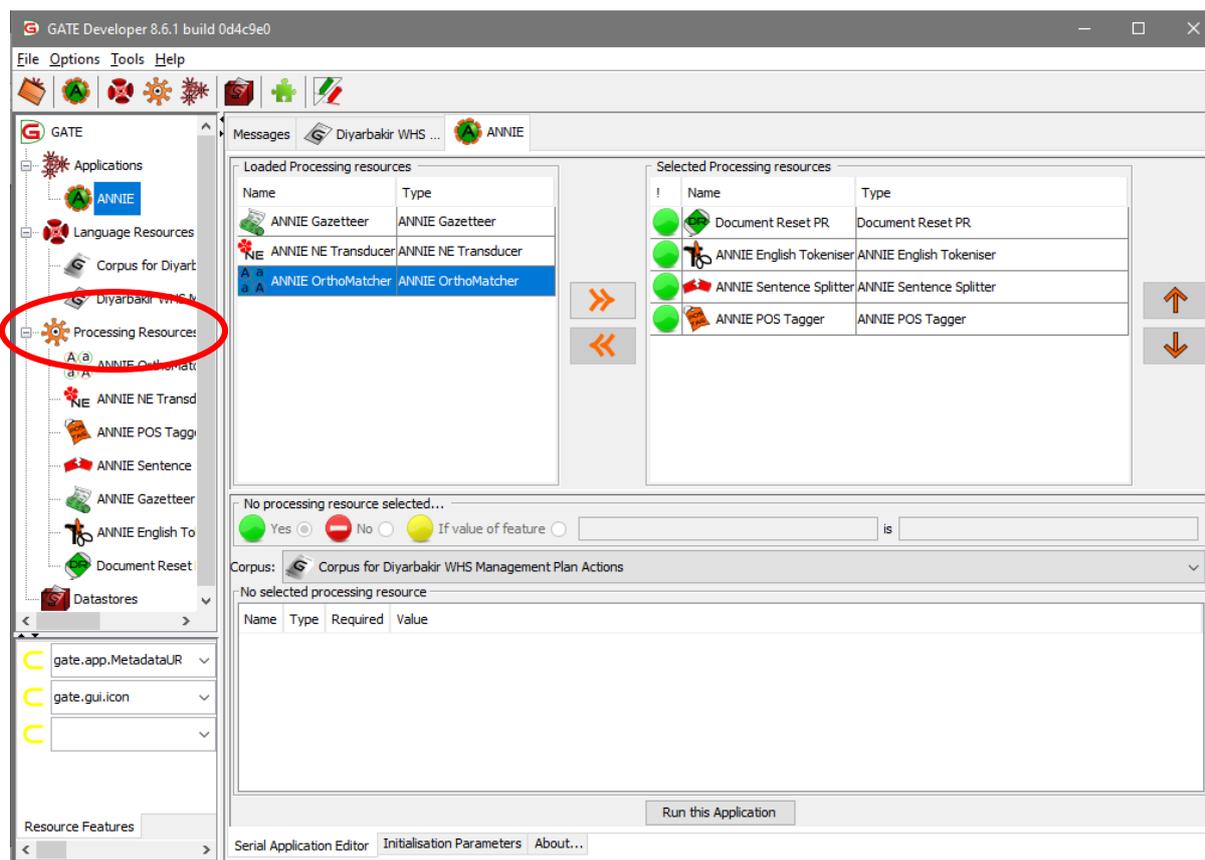
Click on Annotation Sets and Annotation Lists tabs to view the annotation labels and attributes. It would be empty in the beginning (See below screenshot).



To start the annotation process double click on ANNIE on the left column under Applications section. ANNIE application window would appear:



Click on ANNIE Gazetteer and move it to left side of the window by clicking on the arrows in the middle. Do the same for ANNIE NE Transducer and ANNIE OrthoMatcher.



The next step is to add the JAPE annotation rules, however, rule for Action Number annotation may differ for each case. Therefore, before adding the rules to GATE, they need to be reviewed and edited if necessary. JAPE rules can be viewed by opening with Notepad.

The JAPE file consists of two sections; Left-hand Side (LHS) and Right-hand Side (RHS). The LHS of the rule contains the identified annotation pattern whereas the RHS outlines the action to be taken on the detected pattern (Thakker et al., 2009). LHS is shown with the upper red rectangle where the rules are defined for the annotation. RHS is shown with the lower red rectangle where the label is given to the annotations. LHS starts with the definition of the phase, input, control options, rule name and its priority. Phase refers to the stage of annotation, and inputs are default ANNIE tokenizer labels where Token refers to words, letters, punctuation marks and SpaceToken refers to the spaces in the text.

```

File Edit Format View Help
Phase: definition
Input: Token Split SpaceToken Lookup
Options: control = appelt
Debug=true
Rule: ActionNumber
Priority: 20
(
{Token.string == "Action"}
{SpaceToken.kind == space, SpaceToken.length == 1}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
{Token.kind == number}
{Token.kind==punctuation,Token.string == ":"}
):label
->
:label.ActionNumber={rule="ActionNumber"}
Ln 1, Col 1 100% Windows (CRLF) UTF-8

```

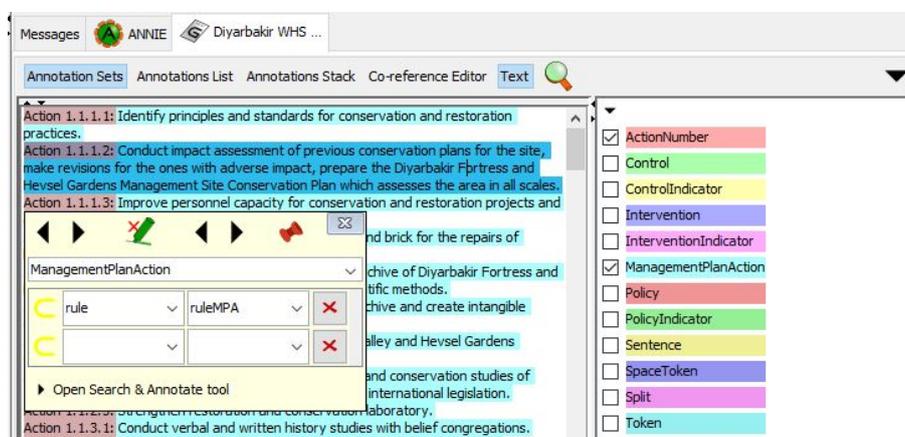
Control and Debug options are about how the annotation flow works. Rule refers to the name given to the

rule and priority is relevant in case there are more than one rule in the JAPE file. This example can be used as default since further information would not be needed to use JAPE annotation for this study.

In order to annotate Action Number, which is the referent for the action sentence, in this example, a rule is created to pick up "Action 1.1.1.1:" as the action number. To do so, "Action 1.1.1.1:" should be split into parts: "the word: Action", "space", "number", "full stop", "number", "full stop", "number", "full stop", "number", "colon". To do so, the rules should be;

```
{Token.string == "Action"}
{SpaceToken.kind == space, SpaceToken.length == 1}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
{Token.kind == number}
{Token.kind==punctuation,Token.string == ":"}
```

This rule would annotate action numbers with ActionNumber label, which would be used for annotation of action sentences and to label them as ManagementPlanAction.

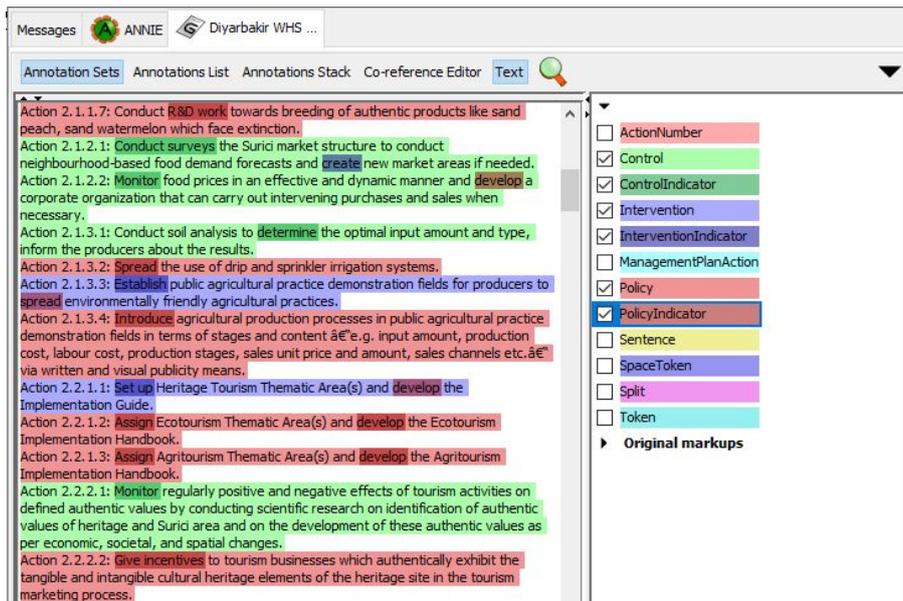


However, if the numbering system is different for another case, the rules should be changed accordingly.

For instance, rule for "Action B1.2." would be like;

```
{Token.string == "Action"}
{SpaceToken.kind == space, SpaceToken.length == 1}
{Token.string == "B"}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
{Token.kind == number}
{Token.kind==punctuation,Token.string == "."}
```

Annotating action numbers is essential because JAPE rules of ActionTypeIndicator and ActionTypes would then annotate the indicators for each type and annotate action sentences as shown below with type labels: Control, Intervention, Policy.



JAPE rule for sentence annotation, indicator annotation and type annotation are shown below. These rules are ready to use and should not be changed.

```

ActionSentence.jape - Notepad
File Edit Format View Help
Phase: selection
Input: Token Split Lookup Sentence
Options: control = appelt
Debug=true

Rule: ruleMPA
Priority: 40
(
    {Sentence contains {ActionNumber}}
    {{Sentence}}*
    {Split.kind==external}
):label
-->
:label.ManagementPlanAction={rule="ruleMPA"}
    
```

```

ActionType.jape - Notepad
File Edit Format View Help
Phase: annotation
Input: Lookup Token Sentence ManagementPlanAction
Options: control = appelt Debug = true

Rule: ruleActionType1
Priority: 40
(
    {ManagementPlanAction contains ControlIndicator}
):controlsentence
-->
:controlsentence.Control={rule="ruleActionType-ruleActionType1"}

Rule: ruleActionType2
Priority:40
(
    {ManagementPlanAction contains InterventionIndicator}
):interventionsentence
-->
:interventionsentence.Intervention={rule="ruleActionType-ruleActionType2"}

Rule: ruleActionType3
Priority:40
(
    {ManagementPlanAction contains PolicyIndicator}
):policysentence
-->
:policysentence.Policy={rule="ruleActionType-ruleActionType3"}
    
```

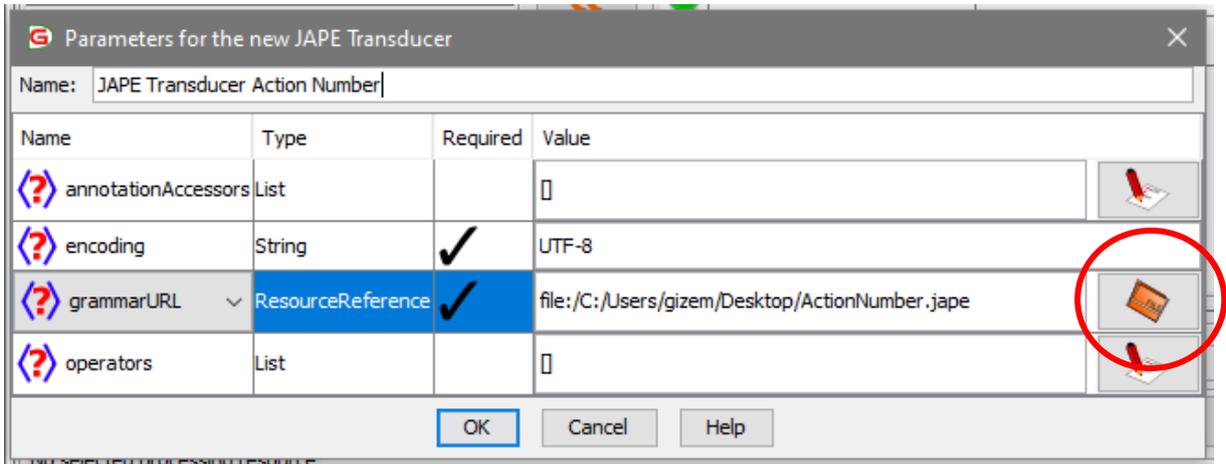
```

*ActionTypeIndicator.jape - Notepad
File Edit Format View Help
Phase: categorisation
Input: Lookup Token Sentence
Options: control = appelt Debug = true

Rule: ActionTypeIndicator1
Priority: 20
(
    {Token.string =~ "[Aa]dapt"}|
    {{Token.string =~ "[Aa]pply"}
    {{Token}}?
    {{Token.string == "policies"}|
    {Token.string == "policy"}}
    )
    |
    {Token.string =~ "[Aa]rrange"}|
    {Token.string =~ "[Aa]ssign"}|
    {{Token.string =~ "[Aa]wareness"}
    {Token.string == "raising"}
    {{Token.string == "activities"}}?
    )
    |
    {{Token.string =~ "[Cc]onduct"}
    {{{Token}}?
    {{Token}}?
    {{Token}}?
    {{Token.string == "activities"}|
    {{Token.string == "history"}}?
    {Token.string == "studies"}}
    )
    |
    {{Token.string == "R"}
    {Token.string == "&"}
    {Token.string == "D"}
    {{Token.string == "work"}|
    {Token.string == "studies"}|
    {Token.string == "study"}
    }
    )
    
```

After adjusting the action number rules, Save the text file and close. To add these annotation rules, go back to the GATE.

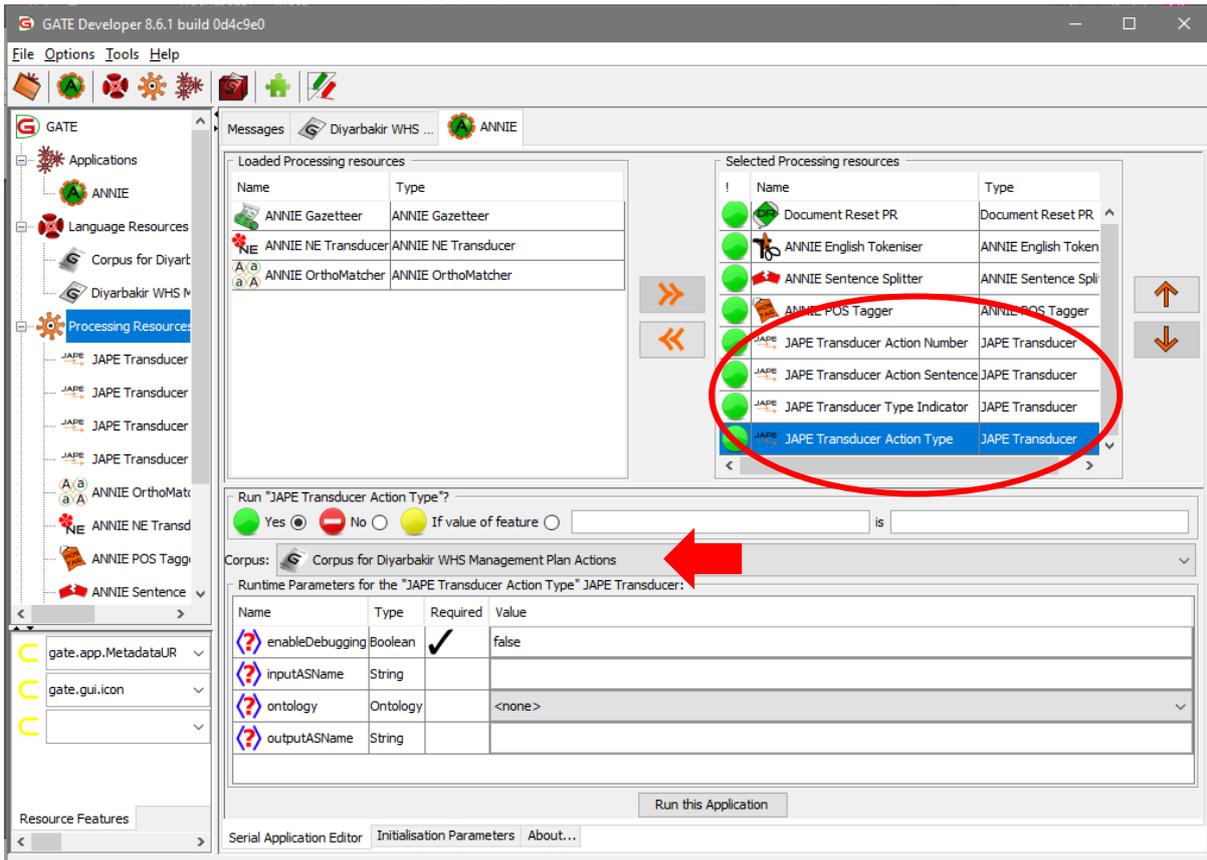
Right click on the Processing Resources section on the left column and select New JAPE Transducer. In the opening window;



Type your annotation rule name and upload ready jape file by clicking on the file icon. Click OK. JAPE files are editable by using a text editor even after uploading them into GATE.

JAPE Transducer would appear on ANNIE window under Loading Processing resources section on the left side. Click on it and move it to the right side.

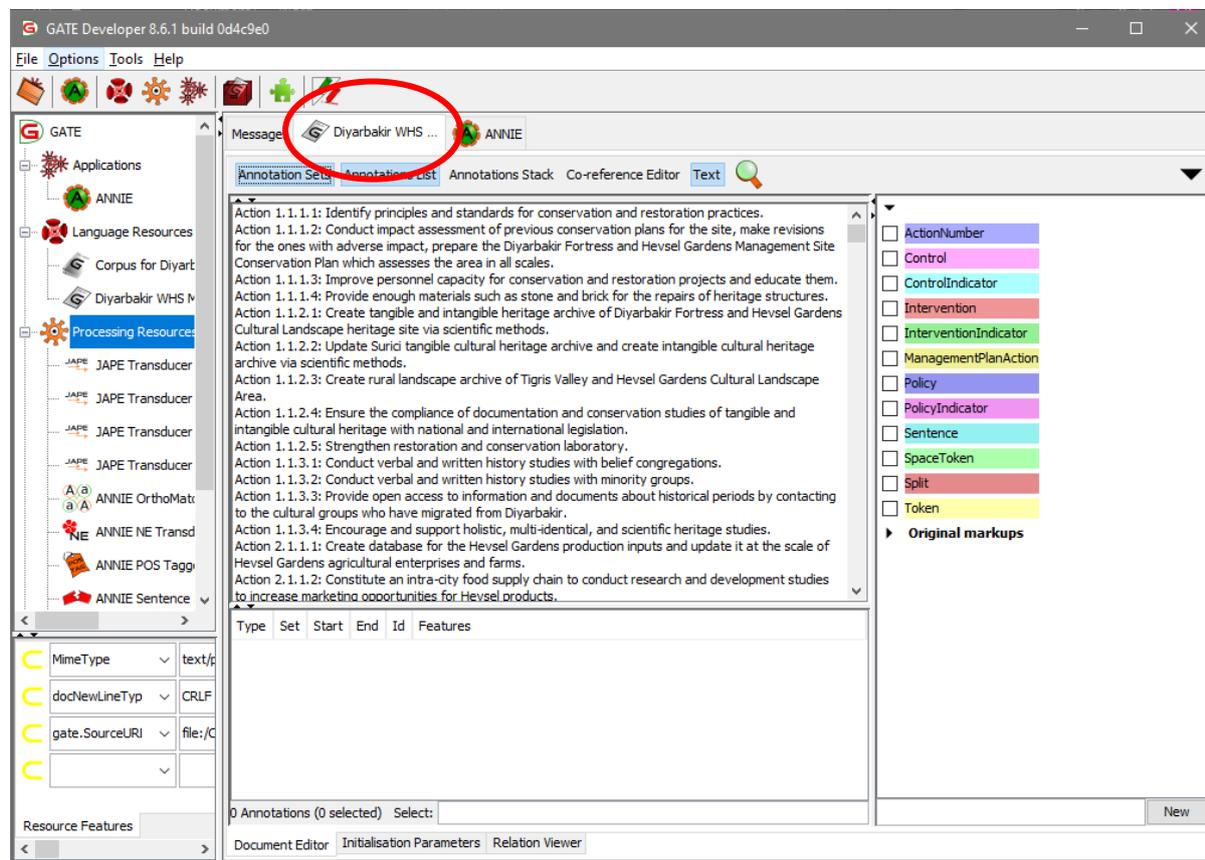
Follow the same steps for other jape files, respectively, Action Sentence, Action Type Indicator, and Action Types. Sequence would be correct in order to have the correct results (See below screenshot).



Application is ready to run on the corpus created from uploaded document before. If the corpus is not selected automatically, select it by clicking on the corpus line as shown with red arrow on the screenshot above.

Click *Run this Application* button. During the processing, a window would appear saying *Running ANNIE on 1 document*. If the document size is relatively small, the processing would take a second.

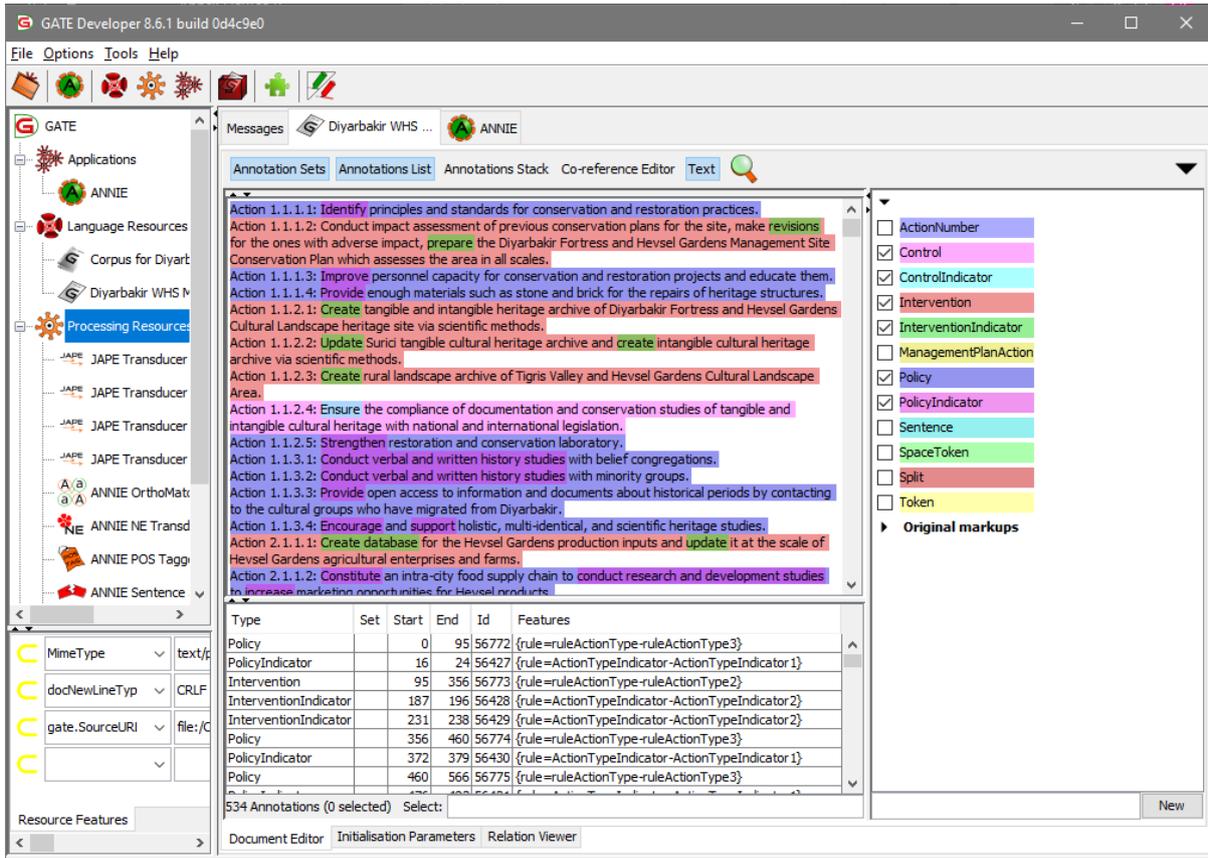
Click on the document tab to view annotation sets and labels (see screenshot below):



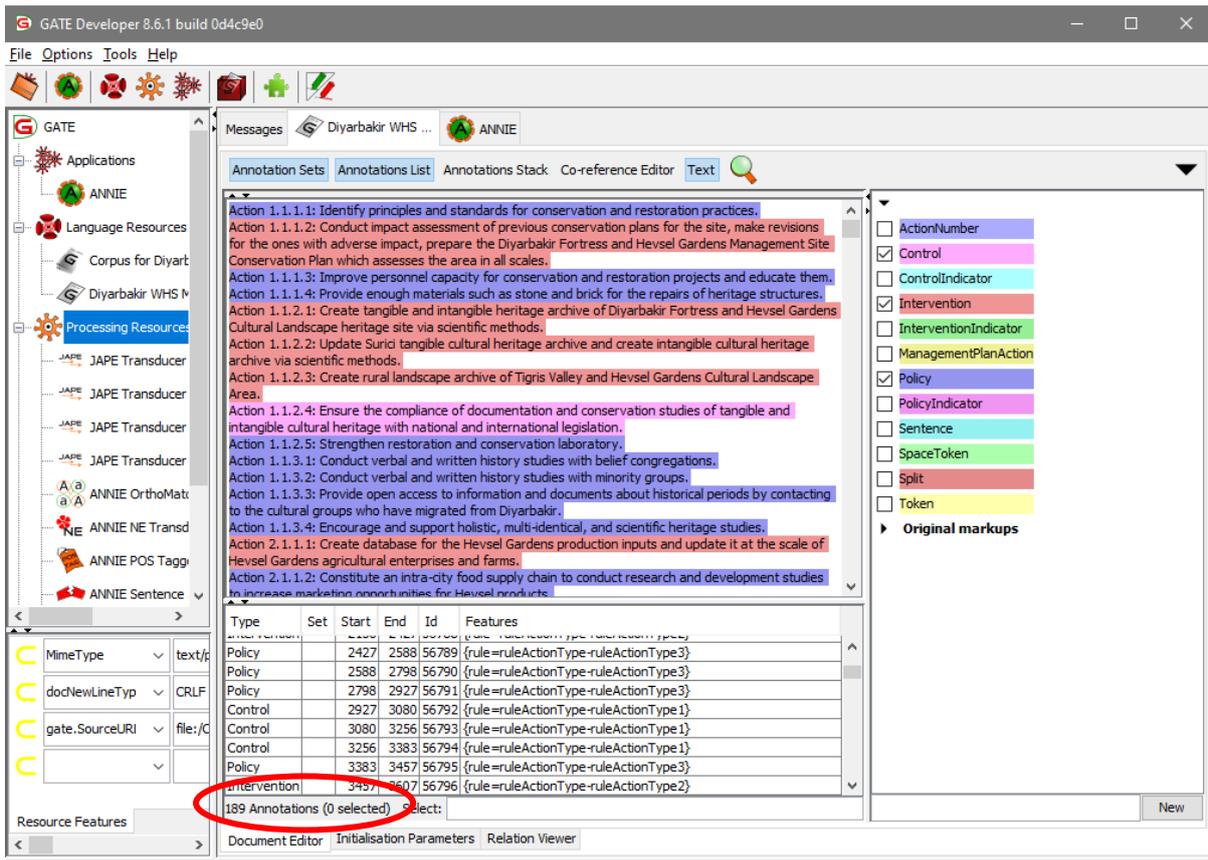
On the right column, annotation labels would appear such as *Control*, *ControlIndicator*, *Intervention*, *InterventionIndicator*, *Policy*, *PolicyIndicator*. Click on the boxes in front of them to visualise annotation on the document. Hence, the indicators and types would be visible highlighted in different colours.

Follow the same steps for the extraction of action categories by uploading *ActionCategoryIndicator.jape* and *ActionCategory.jape* files.

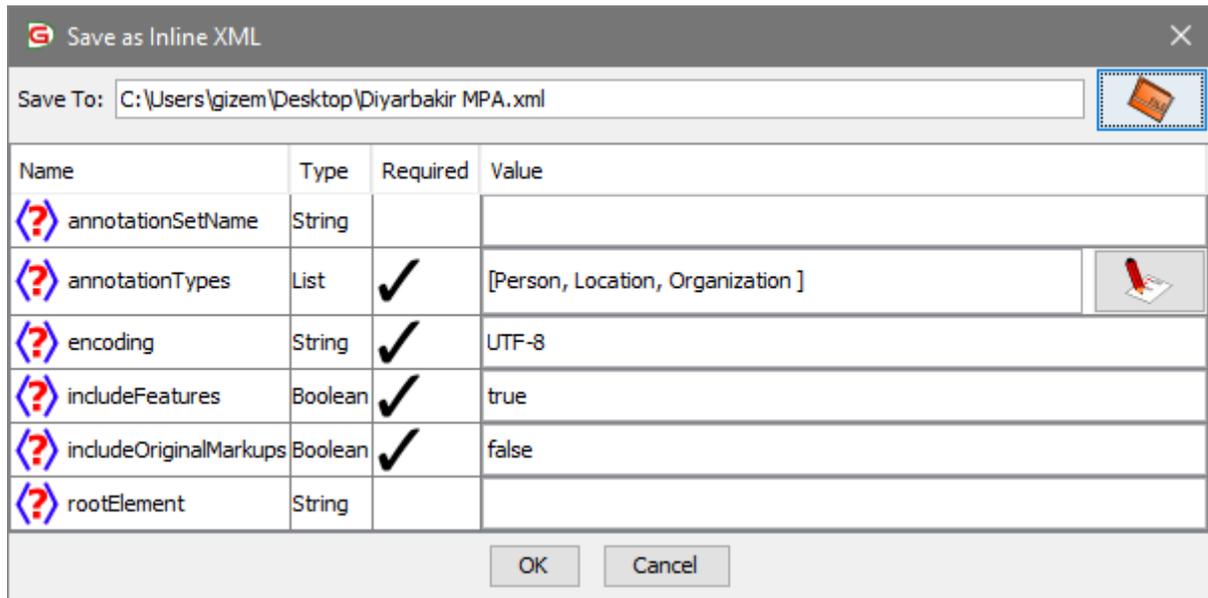
For the issue assertions, it is essential to number them for JAPE annotation. Therefore, follow the same steps again for the extraction of issue assertion types and categories by uploading related JAPE rule files. Remember to adjust the *IssueNumber.jape* file based on the numbering system chosen.



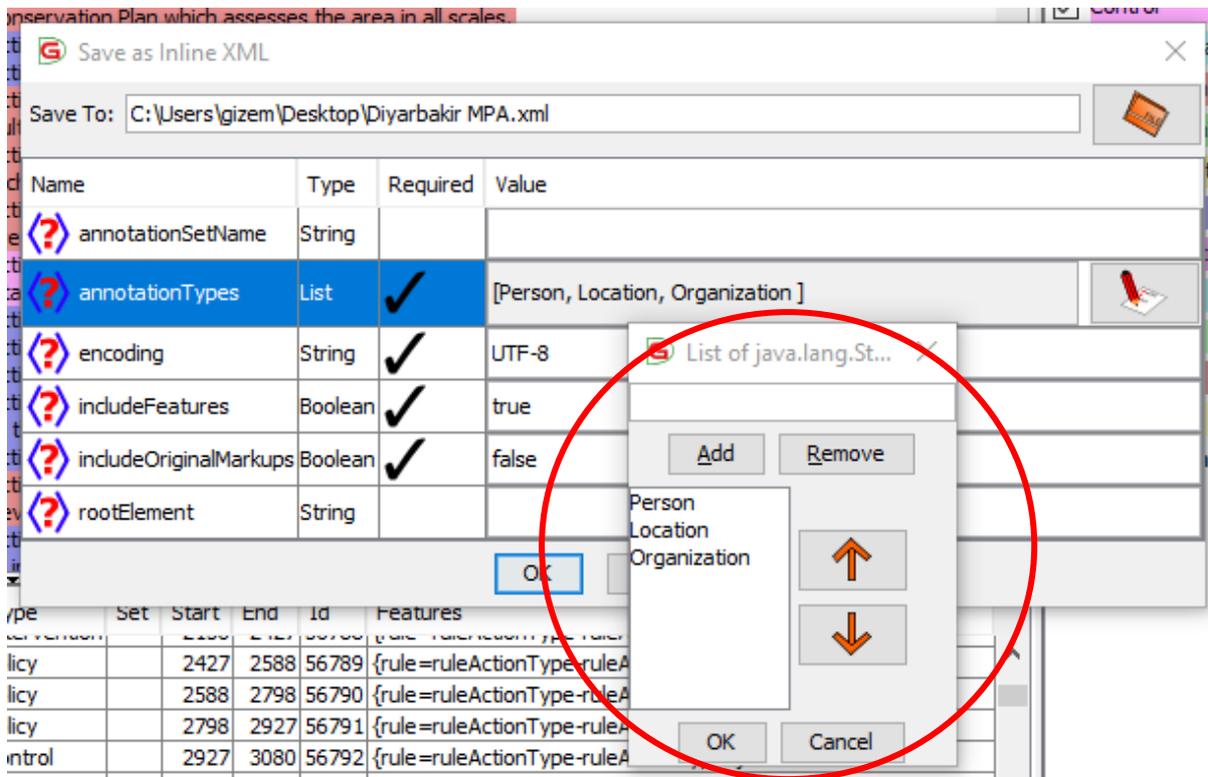
By selecting only type labels, the number of annotated actions can be viewed at the bottom of the Annotations List.



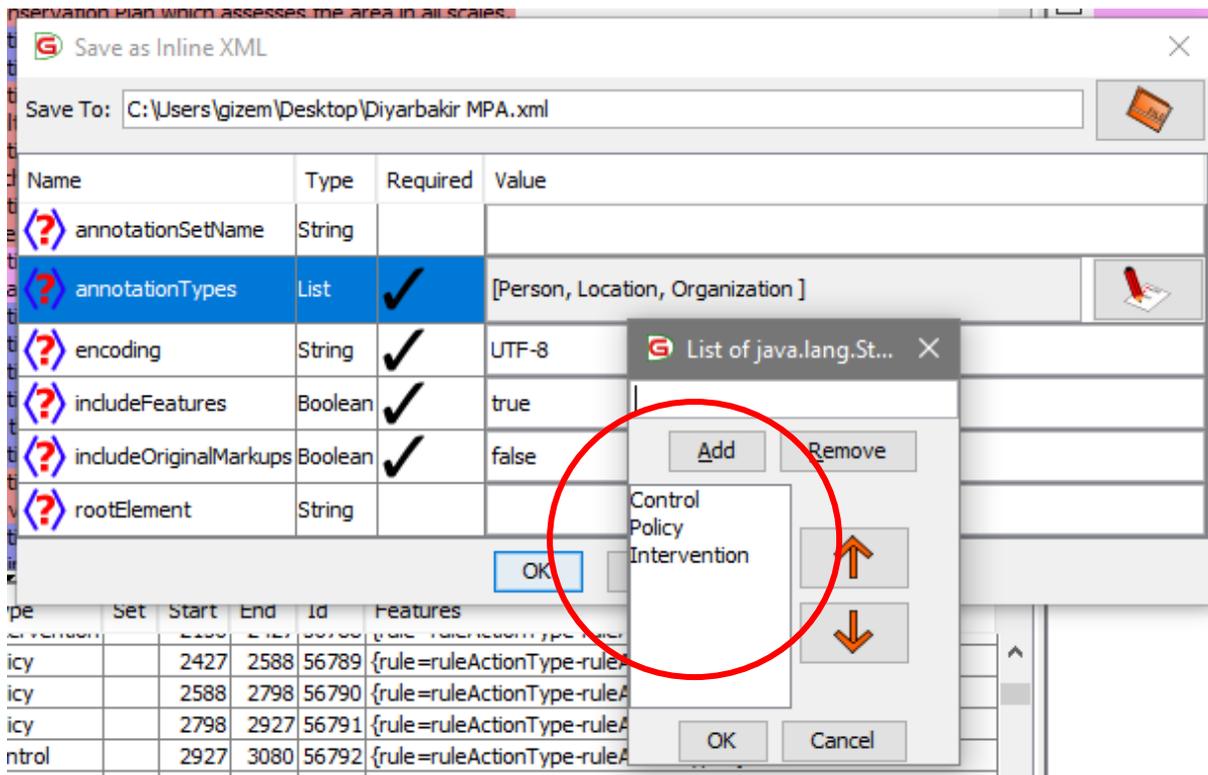
To export the annotated data, right click on the document tab above and click Save as... and Inline XML (.xml). A window would appear asking where to save and what to save.



Select folder location created before and type file name by clicking on document icon at the top. The file would have .xml extension. Then, click on the pencil icon to choose annotations to save. List of default annotations would appear in a new window which are Person, Location, Organization.

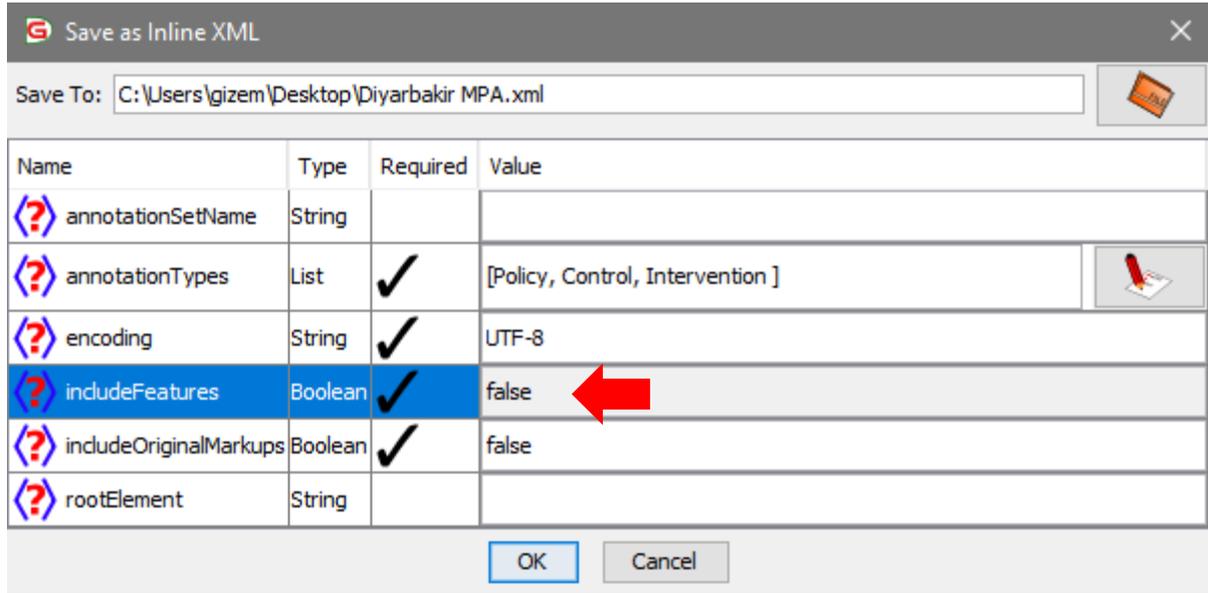


Click on default labels one by one and remove them by clicking on remove button. Then click on the empty line at the top of List window, and type annotation labels to save. For instance, to save the annotated types of management plan actions *Add Control*, *Policy*, and *Intervention*. Labels are case-sensitive and if there are any typing mistakes on the labels, GATE would not export them.



After adding labels to the list, click OK.

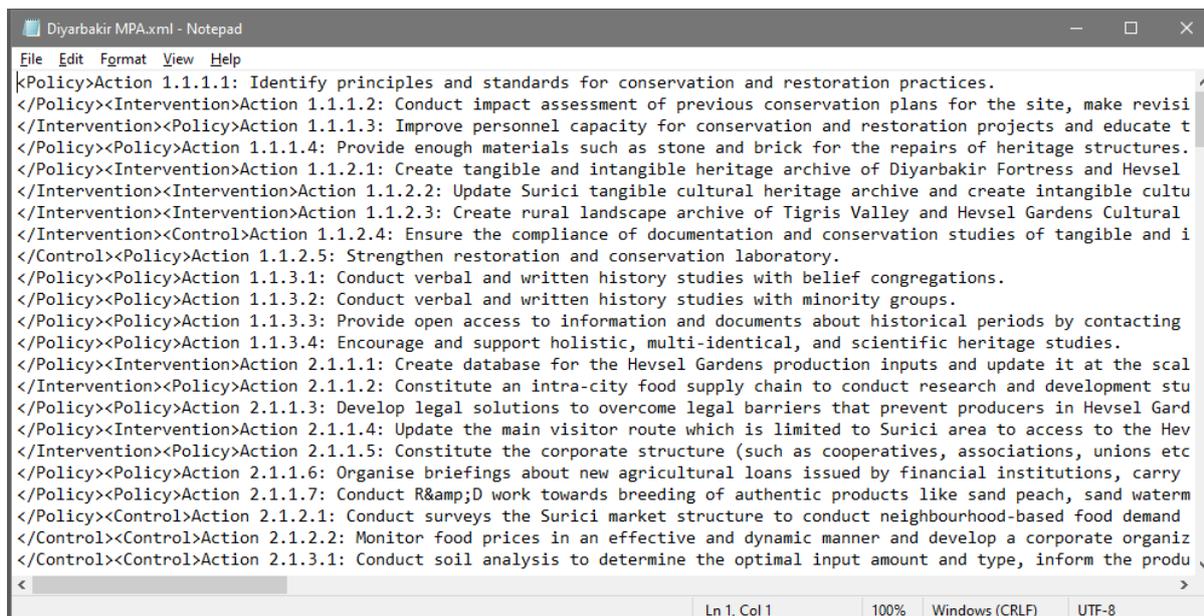
To prevent complex annotation export change *true* value to *false* for *includeFeatures* option and click OK on the Save as window.



Annotation set is exported to the specified folder.

In case of closing the GATE, all the processing steps would disappear. To save the application state, right click on ANNIE tab and select Save Application State. In the opening window, select folder location to save, type file name, and click Save. It is saved in the specified folder, close GATE.

Go to the folder location and open XML file with Notepad. Here, the management plan actions annotated by types can be viewed.

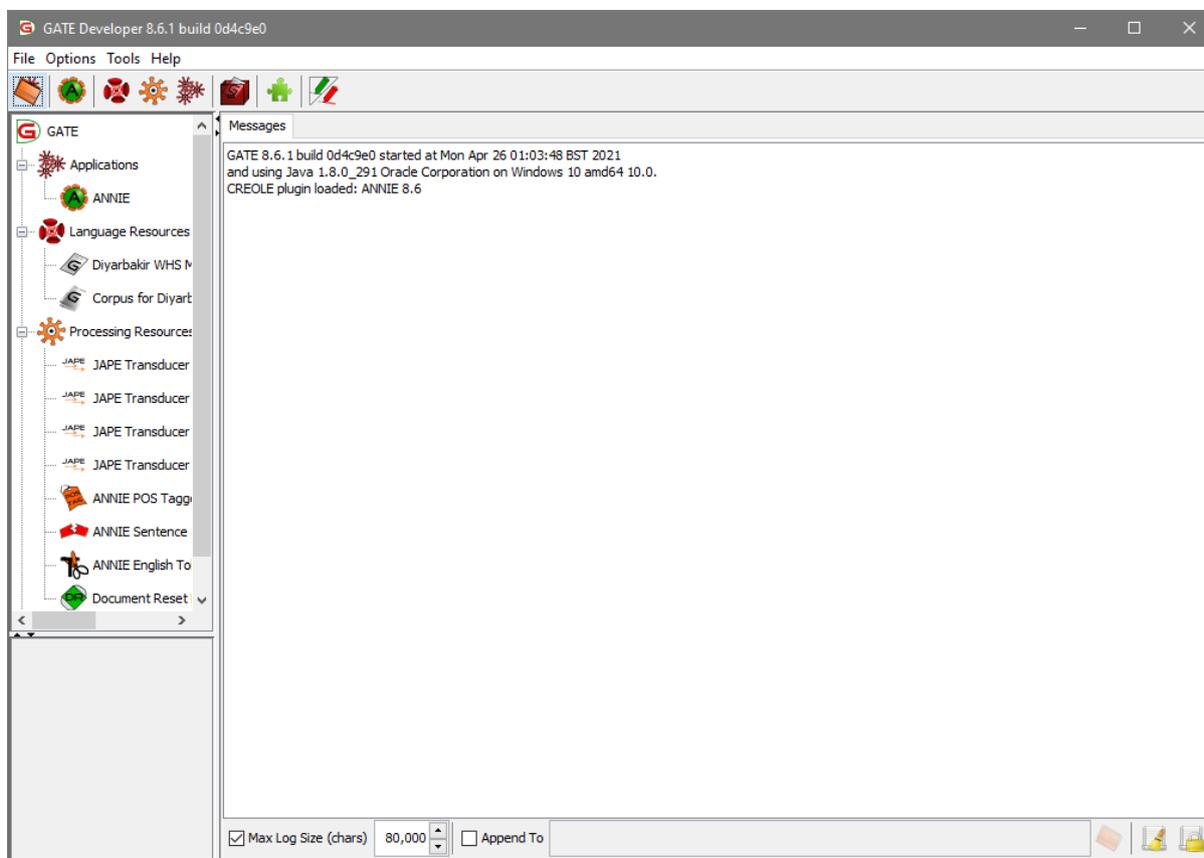


```

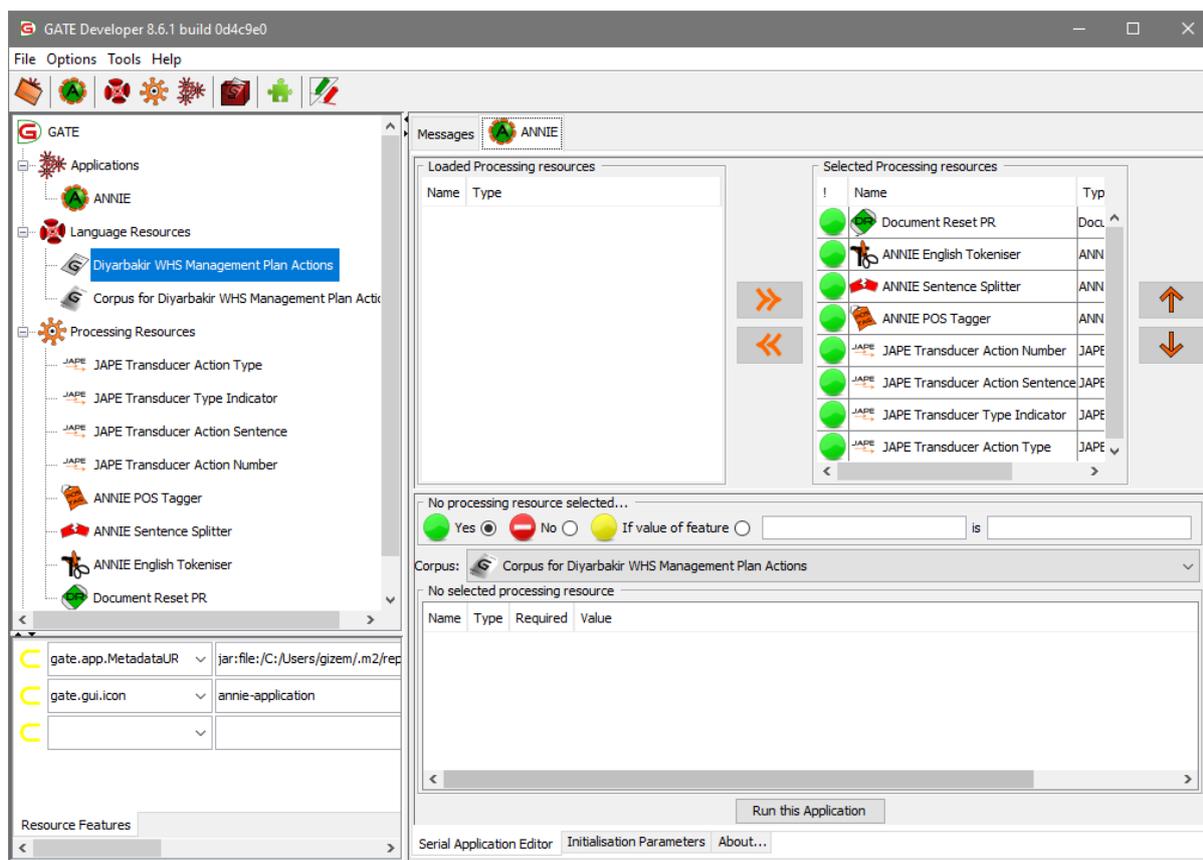
Diyarbakir MPA.xml - Notepad
File Edit Format View Help
<Policy>Action 1.1.1.1: Identify principles and standards for conservation and restoration practices.
</Policy><Intervention>Action 1.1.1.2: Conduct impact assessment of previous conservation plans for the site, make revisi
</Intervention><Policy>Action 1.1.1.3: Improve personnel capacity for conservation and restoration projects and educate t
</Policy><Policy>Action 1.1.1.4: Provide enough materials such as stone and brick for the repairs of heritage structures.
</Policy><Intervention>Action 1.1.2.1: Create tangible and intangible heritage archive of Diyarbakir Fortress and Hevsel
</Intervention><Intervention>Action 1.1.2.2: Update Surici tangible cultural heritage archive and create intangible cultu
</Intervention><Intervention>Action 1.1.2.3: Create rural landscape archive of Tigris Valley and Hevsel Gardens Cultural
</Intervention><Control>Action 1.1.2.4: Ensure the compliance of documentation and conservation studies of tangible and i
</Control><Policy>Action 1.1.2.5: Strengthen restoration and conservation laboratory.
</Policy><Policy>Action 1.1.3.1: Conduct verbal and written history studies with belief congregations.
</Policy><Policy>Action 1.1.3.2: Conduct verbal and written history studies with minority groups.
</Policy><Policy>Action 1.1.3.3: Provide open access to information and documents about historical periods by contacting
</Policy><Policy>Action 1.1.3.4: Encourage and support holistic, multi-identical, and scientific heritage studies.
</Policy><Intervention>Action 2.1.1.1: Create database for the Hevsel Gardens production inputs and update it at the scal
</Intervention><Policy>Action 2.1.1.2: Constitute an intra-city food supply chain to conduct research and development stu
</Policy><Policy>Action 2.1.1.3: Develop legal solutions to overcome legal barriers that prevent producers in Hevsel Gard
</Policy><Intervention>Action 2.1.1.4: Update the main visitor route which is limited to Surici area to access to the Hev
</Intervention><Policy>Action 2.1.1.5: Constitute the corporate structure (such as cooperatives, associations, unions etc
</Policy><Policy>Action 2.1.1.6: Organise briefings about new agricultural loans issued by financial institutions, carry
</Policy><Policy>Action 2.1.1.7: Conduct R&D work towards breeding of authentic products like sand peach, sand waterm
</Policy><Control>Action 2.1.2.1: Conduct surveys the Surici market structure to conduct neighbourhood-based food demand
</Control><Control>Action 2.1.2.2: Monitor food prices in an effective and dynamic manner and develop a corporate organiz
</Control><Control>Action 2.1.3.1: Conduct soil analysis to determine the optimal input amount and type, inform the produ
Ln 1, Col 1 100% Windows (CRLF) UTF-8

```

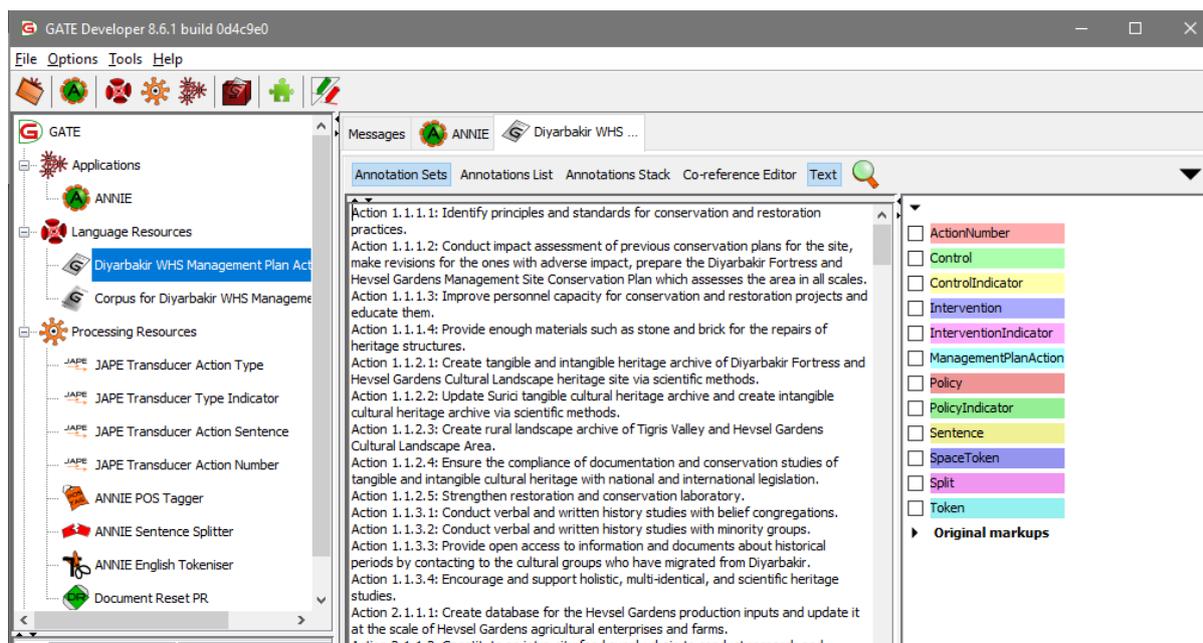
In order to reopen the GATE process, open GATE, click on *File* tab, and select *Restore Application from File...* In the opening window, change *Files of type* from *GATE Application files (.gapp, .xgapp)* to *All Files* and go to the folder location where the GATE process is saved. Select the file and click *Open*.



ANNIE Application, JAPE rules, data document and corpus would be uploaded and viewed on the left column. In order to view the annotations, ANNIE application should run first. Therefore, double click on ANNIE icon under the *Applications* section on the left column. ANNIE application window would open. To view the annotations, the application should be run again on the corpus, as previously.



To view the annotation list and labels double click on the document on the left column. When *Annotation Sets* tab is clicked, annotation labels can be viewed on the right column. In case of making changes on GATE, application state should be saved to be able to pick up where it is left off.



* Thakker, D. et al. 2009. GATE JAPE Grammar Tutorial. 1, pp. 1–38. Available at: [http://gate.ac.uk/sale/thakker-jape-tutorial/GATE JAPE manual.pdf](http://gate.ac.uk/sale/thakker-jape-tutorial/GATE%20JAPE%20manual.pdf).

* JAPE rule files are available upon request.

Appendix V: Actor Comparison Microsoft Excel Macro Script

```

Sub MACRO_ACTOR()
  Dim i As Integer
  For i = 1 To 220
    Range(Cells(i, 1), Cells(i, 3)).Select
    Selection.Copy
    Range(Cells(i + 1, 5), Cells(i + 1, 7)).Select
    Selection.PasteSpecial Paste:=xlPasteValues, Operation:=xlNone, SkipBlanks _
      :=False, Transpose:=False
    Selection.Replace What:="", Replacement="", LookAt:=xlPart, _
      SearchOrder:=xlByRows, MatchCase:=False, SearchFormat:=False, _
      ReplaceFormat:=False, FormulaVersion:=xlReplaceFormula2
    Cells(i + 2, 5).Select Application.CutCopyMode = False
    ActiveCell.Formula2R1C1 = "=TRANSPOSE(R[-1]C:R[-1]C[2])"
    Range(Cells(i + 2, 5), Cells(i + 4, 5)).Select
    Selection.Copy
    Selection.PasteSpecial Paste:=xlPasteValues, Operation:=xlNone, SkipBlanks _
      :=False, Transpose:=False
    Application.CutCopyMode = False
    Selection.TextToColumns Destination:=Cells(i + 2, 5), DataType:=xlDelimited, _
      TextQualifier:=xlDoubleQuote, ConsecutiveDelimiter:=False, Tab:=False, _
      Semicolon:=False, Comma:=False, Space:=False, Other:=True, OtherChar _
      :=";", FieldInfo:=Array(Array(1, 1), Array(2, 1), Array(3, 1)), _
      TrailingMinusNumbers:=True
    Cells(i, 5).Select
    Selection.FormulaArray = _
      "=SUMPRODUCT(--ISNUMBER(SEARCH(IF(R[3]C5:R[4]C26<>""""",R[3]C5:R[4]C26),R[1]C)))"
    Cells(i, 6).Select
    Selection.FormulaArray = _
      "=SUMPRODUCT(--OR(ISNUMBER(SEARCH(IF(R[2]C5:R[2]C26<>""""",R[2]C5:R[2]C26),
      R[1]C)),ISNUMBER(SEARCH(IF(R[4]C5:R[4]C26<>""""",R[4]C5:R[4]C26),R[1]C))))"
    Cells(i, 7).Select
    Selection.FormulaArray = _
      "=SUMPRODUCT(--ISNUMBER(SEARCH(IF(R[2]C5:R[3]C26<>""""",R[2]C5:R[3]C26),R[1]C)))"
    Range(Cells(i, 5), Cells(i, 7)).Select
    Selection.Copy
    Selection.PasteSpecial Paste:=xlPasteValues, Operation:=xlNone, SkipBlanks _
      :=False, Transpose:=False
    Range(Cells(i + 1, 5), Cells(i + 3, 26)).Select
    Application.CutCopyMode = False
    Selection.ClearContents
  Next i
End Sub

```

Appendix VI: Association matrix for Bursa and Cumalıkızık: The Birth of the Ottoman Empire WHS

Planning theme	Objectives	Associated issue assertions	MPA	District
1 - Management	B1.1- Analysis and development of legislation regarding the institutions in the area (Omissions, inconsistencies, conflicts, etc.)	Issue B.1.1: Large number of institutions are authorised in the area due to unclear boundaries of their authority.	B1.1.1. Define scope of authority between organizations in accordance with conservation legislation and briefing.	Osmangazi District, Yildirim District
		Issue B.1.2: There is an expectation of creating a special legislation for Khans Area.	B1.1.2. Put Bursa and Cumalıkızık Management Plan into action, use existing legislation efficiently, develop monitoring and auditing mechanisms.	Osmangazi District, Yildirim District
		Issue B.1.2: There is an expectation of creating a special legislation for Khans Area.	B1.1.3. Enable decisions in the Bursa and Cumalıkızık Management Plan to be reflected in larger scale plans.	Osmangazi District, Yildirim District
		Issue B.1.6: The heritage site is on the World Heritage Tentative List and studies continue to add these areas to cultural world heritage.	B1.1.4. Ensure that ICOMOS Impact Assessment Report is taken into account for all projects involving World Heritage Candidate areas.	Osmangazi District, Yildirim District
		Issue B.1.5: The sites are being protected with the cooperation of central and local government using Special Provincial Administration funds.	B1.1.5. Ensure financial and technical support from ministries, municipalities and universities.	Osmangazi District, Yildirim District
		Issue B.1.3: Due to lack of inspections and sanctions on practices, restoration works are done in a precipitous and inaccurate way.	B1.1.6. Work together with the Conservation Committee to ensure sanctions and reviews of incorrect applications according to conservation legislation.	Osmangazi District, Yildirim District
		Issue B.1.4: Insufficient tendering legislation leads to the lack of qualified staff and experienced companies.	B1.1.7. Bring special criteria to the tendering legislation to ensure that conservation is carried out by expert people/organizations, creation of technical specifications.	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
1 - Management	B1.2- Analysis of and development of existing organization between institutions involve in the area (Coordination, participation policies, etc.)	Issue B.1.9: Expectations of stakeholders are conflicted and the number of agreed objectives are less.	No actions	
		Issue B.1.10: The sites are located in first settled neighbourhoods and local governments and community are sensitive to and willing to safeguarding.	No actions	
		Issue B.1.7: Conservation plans for heritage sites are outdated, insufficient, and partial.	B1.2.1. Establish Conservation Implementation and Control Bureau (KUDEB) in all municipalities to give permission for basic repairs regarding conservation.	Bursa General
		No issue assertions	B1.2.2. Encourage working in coordination with Istanbul Regional Restoration and Conservation Laboratory to enable the use of the correct technology and original materials.	Bursa General
		No issue assertions	B1.2.3. Forward all project applications to the Conservation Council after having been checked by the municipality for suitability with master plan.	Osmangazi District, Yildirim District
		Issue B.1.8: Coordination and communication lack between competent institutions.	B1.2.4. Create an independent unit made up of different disciplines and organizations to enable cooperation and ensure accomplishment of the control mechanism.	Osmangazi District, Yildirim District
		Issue B.1.7: Conservation plans for heritage sites are outdated, insufficient, and partial.	B1.2.5. Determine institutions and organizations responsible for maintenance and basic repairs, create an interactive control and communication chart, and report to BAB periodically.	Osmangazi District, Yildirim District
1 - Management	B.1.3- Define Area Management and increase awareness	Issue B.1.13: Bursa Site Management is established.	B1.3.1. Arrange briefing meetings regarding Site Management.	Osmangazi District, Yildirim District
		Issue B.1.12: An organizational structure is needed to provide community engagement on neighbourhood scale, about the problems of social structure, health and culture regarding conservation notion and life quality.	B1.3.2. Develop a project to enable the efficient participation of NGOs and stakeholders in the management process.	Osmangazi District, Yildirim District
		Issue B.1.11: Conservation processes are inefficient regarding operations and timing because operation of official procedures are slow.	B1.3.3. Arrange coordination meetings between stakeholders to develop an annual work program.	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue B.1.14: Management Plan is in the preparation process and a communication platform is created between stakeholders.	B1.3.4. Create an inspection unit regarding the Management Plan, determined by the Coordination and Auditing Board.	Osmangazi District, Yildirim District
		Issue B.1.12: There is a need for an organizational structure to provide community engagement on neighbourhood scale, about the problems of social structure, health and culture regarding conservation notion and life quality.	B1.3.5. Measure and evaluate participation to enable active, equal and transparent participation of all stakeholders and create an auditable process.	Osmangazi District, Yildirim District
		Issue B.1.14: Management Plan is in the preparation process and a communication platform is created between stakeholders.	B1.3.6. Revise the Management Plan every 5 years.	Osmangazi District, Yildirim District
1- Management	C1.1- Identifying the solution methods (deficiencies, conflicts, incompatibilities, etc.) by analysing the current legislations that authorized institutions bound to in the Management Site	Issue C.1.8: The site has priority to benefit from contribution funds.	No actions	
		Issue C.1.5: The issue of the legal entity of villages causes problems due to the changes in municipality law.	C1.1.1. Identify the authority limits among institutions by reviewing the conservation legislation and make informative studies.	Yildirim District
		Issue C.1.2: There are illegal housings around the village and farming areas are being plundered by foreigners.	C1.1.2. Make Bursa and Cumalıkızık Management Plan more functional, benefit from the current legislation authorities, develop monitoring and control mechanism.	Yildirim District
		Issue C.1.3: The limitations of conservation law no 2863 diminishes life quality.	C1.1.3. Identify deficiencies and issues in the monitoring system and identify applications in order to fill the gap in the legislation.	Yildirim District
		Issue C.1.1: Conservation Zoning Plan is not up to date, and it takes long to update due to the existence of gap in the legislation.	C1.1.4. Create a zoning plan aiming conservation, put it into practice immediately, and coordinate.	Yildirim District
		Issue C.1.4: Registered buildings are being restored with non-authentic materials. This creates an example case for the villagers for conversion of such buildings into restaurants by unauthorized people.	C1.1.5. Prepare protocol agreements in order to generate a committee of experts from different institutions and disciplines for the coordination of institutions in the control and application of restoration processes.	Yildirim District
		Issue C.1.6: The village resides in the conservation area and the protection status is not clear.	C1.1.6. Create projects and applications to keep national and international preservation criteria and in accordance with the contemporary conservation approaches.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.1.7: The site is in the World Heritage Nominee list and studies are being done in order to get the nomination.	C1.1.6. Create projects and applications to keep national and international preservation criteria and in accordance with the contemporary conservation approaches.	Yildirim District
1- Management	C1.2- Analysing and developing the current organization among authorized institutions in the Area (Coordination, participatory politics, etc.)	No issue assertions	C1.2.1. Develop a model of funding proposals for preservation applications, generate financial and technical support from ministries, municipalities and universities.	Yildirim District
		Issue C.1.10: Multiple authorities cause coordination problems.	C1.2.2. Establish Conservation Implementation and Control Bureau (KUDEB) in all municipalities to give permission for basic repairs regarding conservation.	Yildirim District
		No issue assertions	C1.2.3. Encourage working in coordination with Istanbul Regional Restoration and Conservation Laboratory to enable the use of the correct technology and original materials.	Yildirim District
		Issue C.1.10: Multiple authorities cause coordination problems.	C1.2.4. Search solutions via Ministries by identifying the issues experienced at conflicting applications using legal control and legal consultancy.	Yildirim District
		Issue C.1.12: Village is incorporated with several programs, a communication platform is being generated among the shareholders to coordinate institutions and support collaboration in the works.	C1.2.5. Carry out studies in order to develop farm products and cooperative concept with active participation of the villagers and institutional collaboration.	Yildirim District
		Issue C.1.9: Coordination among projects at the village should be set up via participatory mechanism.	C1.2.6. Identify the needs in order to balance conservation-utilisation and consider life quality while conserving and finding solutions.	Yildirim District
		Issue C.1.11: The village is preserved because locals possess the village and have a susceptibility to preservation.	C1.2.6. Identify the needs in order to balance conservation-utilisation and consider life quality while conserving and finding solutions.	Yildirim District
2- Cultural Values - Conservation and Planning	B2.1- The realization of projects and applications in accordance with contemporary	Issue B.2.7: Khans Area was the Ottoman's first bazaar and an international trade centre, and the Complexes were built in the reign of the first Sultans and they were used for science and religion studies.	No actions	

Planning theme	Objectives	Associated issue assertions	MPA	District
	approaches and national and international conservation criteria	Issue B.2.8: There are areas owned by public institutions such as Waqf, municipality etc. in the heritage site.	No actions	
		Issue B.2.3: Archives of destroyed or lost buildings like old bazaars in Khans Area are absent.	B2.1.1. Prepare construction surveys of all streets, facades, floor coverings and electrical poles of all areas.	Osmangazi District, Yildirim District
		Issue B.2.5: The periodical maintenance and repairs of the restorations should be implemented by planning in a systematic way and basic repairs should be completed with permission.	B2.1.2. Determine the priority areas in the stages of restoration.	Osmangazi District, Yildirim District
		Issue B.2.4: Some parts of the complexes such as Turkish baths, madrasah are utilised in ways that they were not intended to be used.	B2.1.3. Determine the structures that will be restored with a balance to conservation and utilization.	Osmangazi District, Yildirim District
		Issue B.2.9: The studies started to protect and conserve the historical and cultural heritage of Sultan's Complexes including maintenance, repair, security and management.	B2.1.3. Determine the structures that will be restored with a balance to conservation and utilization.	Osmangazi District, Yildirim District
		Issue B.2.6: Qualified staff and experts in restoration are needed.	B2.1.4. Increase the number of experts like art historians, archaeologists, architects specializing in restoration, restorers in public sector and companies that are working in the conservation area.	Osmangazi District, Yildirim District
		Issue B.2.6: Qualified staff and experts in restoration are needed.	B2.1.5. Require that companies doing restoration work have experienced and certified restoration staff.	Osmangazi District, Yildirim District
		Issue B.2.1: Restorations are not made in compliance with the original or resistant to natural disasters.	B2.1.6. Reward and promote good restorations as an incentive.	Osmangazi District, Yildirim District
		Issue B.2.2: Some of the restored buildings lose their authenticity due to using non-original materials on their exterior facades.	B2.1.6. Reward and promote good restorations as an incentive.	Osmangazi District, Yildirim District
		No issue assertions	B2.1.7. Ensure that ICOMOS Impact Assessment Report is taken into account for all projects involving World Heritage Candidate areas.	Osmangazi District, Yildirim District
	B2.2- Reveal historical and cultural values	Issue B.2.11: A comprehensive archive of the history of the area is needed.	B2.2.1. Establish a heritage information system which provides access of information on property,	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
2- Cultural Values - Conservation and Planning	related to tangible and intangible cultural heritage, increase the research and archival work to improve the memory of the city.		zoning status, photos, inventory sheet, resolutions by relevant institutions, planned, continuing or completed projects.	
		Issue B.2.14: The site reflects the most important architectural features of the first capital of the Ottoman Empire.	B2.2.2. Complete an inventory of intangible cultural heritage and art relating to Khans Area and the Complexes.	Osmangazi District, Yildirim District
		Issue B.2.15: One of the five most important mosques for the Islamic World, the Ulu Mosque, is in the core of Khans area and it is an open line-art museum.	B2.2.2. Complete an inventory of intangible cultural heritage and art relating to Khans Area and the Complexes.	Osmangazi District, Yildirim District
		Issue B.2.16: The first examples of angular mosques from different periods are located here and reflect the strong wakf tradition of the Ottoman Empire in Khans Area.	B2.2.2. Complete an inventory of intangible cultural heritage and art relating to Khans Area and the Complexes.	Osmangazi District, Yildirim District
		Issue B.2.13: The sites are the masterpieces which named the areas with their traditional identity and created symbolic value in the city.	B2.2.3. Create a project to increase the perceptibility of Tumulus (2nd century burial chamber) located in Khans Area.	Osmangazi District, Yildirim District
		Issue B.2.11: A comprehensive archive of the history of the area is needed.	B2.2.4. Create a digital archive in Bursa Site Management for the current restoration projects and traditional building details.	Osmangazi District, Yildirim District
		Issue B.2.11: A comprehensive archive of the history of the area is needed.	B2.2.5. Create a Bursa Site Management library regarding the World Heritage Candidate Site.	Osmangazi District, Yildirim District
		Issue B.2.10: Intangible cultural heritage values are in danger to be lost because they are not adequately identified.	B2.2.6. Promote the publication of research studies aimed at identifying intangible cultural assets.	Osmangazi District, Yildirim District
		Issue B.2.17: Karagöz-Hacivat and area rooted stories are kept alive and academic studies on the subject continues.	B2.2.6. Promote the publication of research studies aimed at identifying intangible cultural assets.	Osmangazi District, Yildirim District
		Issue B.2.12: Local government lacks interest in traditional arts and crafts.	B2.2.7. Support the sustainability of local craftsmen with a 'White Lily' type reward, publicize their shops in tourist maps etc., and provide informative leaflets in shops.	Osmangazi District, Yildirim District
	B2.3- Protecting and sustaining the historical	Issue B.2.24: A majority of residential and civil architecture examples are still standing in the areas around the Complexes, and there are	No actions	

Planning theme	Objectives	Associated issue assertions	MPA	District
2- Cultural Values - Conservation and Planning	environment in an integrating manner	municipal investment programs to ensure the continuity of the restorations.		
		Issue B.2.18: Common ideas, shared vision and policies for the conservation of natural and cultural heritage are needed.	B2.3.1. Revise conservation master plans to comply with the Management Plan.	Osmangazi District, Yildirim District
		Issue B.2.19: A realistic and feasible protection plan for the conservation areas is needed.	B2.3.1. Revise conservation master plans to comply with the Management Plan.	Osmangazi District, Yildirim District
		Issue B.2.21: Awareness raising activities should be held regarding the changing urban silhouette.	B2.3.2. Ensure making analyses to determine the maximum building height so as to preserve the urban landscape of the historical area.	Osmangazi District, Yildirim District
		Issue B.2.20: A common database should be created to reach standard and compatible data.	B2.3.3. Create a GIS database to be able to map monthly, quarterly and 6-monthly work carried out by all institutions on an interactive map.	Osmangazi District, Yildirim District
		Issue B.2.22: Illegal and unlicensed construction threatens the Khans Area and its surroundings.	B2.3.4. Develop landscaping projects for the green areas in the heritage sites, in particular those around the Sultan Complexes.	Osmangazi District, Yildirim District
		Issue B.2.23: Historical structure around the Complexes is adversely affected by heavy construction. These areas should be utilised by local inhabitants.	B2.3.5. Create projects for the protection of the land where registered buildings have been demolished.	Osmangazi District, Yildirim District
		Issue B.2.20: A common database should be created to reach standard and compatible data.	B2.3.6. Digitalize the Conservation Committee archives and update registration sheets.	Osmangazi District, Yildirim District
2- Cultural Values - Conservation and Planning	B2.4- Create unity in accordance with national and international principles	Issue B.2.25: An urban design guide should be created.	B2.4.1. Create an Urban Design Guide for the Management Site.	Osmangazi District, Yildirim District
		Issue B.2.30: Awareness of the importance of sustainable urban design increases in local administrations.	B2.4.1. Create an Urban Design Guide for the Management Site.	Osmangazi District, Yildirim District
		Issue B.2.27: Information and direction signage should be improved, and norms and standards should be created.	B2.4.2. Produce zoning map in urban design project and determine urban furniture, facade and height resolutions, signage and camping areas.	Osmangazi District, Yildirim District
		Issue B.2.28: Store signs and overwhelmed storefronts cloud the architectural identity of the area.	B2.4.2. Produce zoning map in urban design project and determine urban furniture, facade and height resolutions, signage and camping areas.	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue B.2.26: A common language for floor coverings should be created.	B2.4.3. Ensure and audit the use of Urban Design Guide for new projects.	Osmangazi District, Yildirim District
		Issue B.2.29: The disorder in the Khan courtyards negatively impacts the area and creates visual pollution.	B2.4.3. Ensure and audit the use of Urban Design Guide for new projects.	Osmangazi District, Yildirim District
2- Cultural Values - Conservation and Planning	B2.5- Determination of indicators related to the degradation and destruction of cultural heritage	Issue B.2.31: Degradation and destruction of cultural heritage is a problem.	B2.5.1. Periodically identify destroyed civil architecture examples in the area every year.	Osmangazi District, Yildirim District
		Issue B.2.32: Unregistered historical buildings should be registered.	B2.5.2. Update registration sheets.	Osmangazi District, Yildirim District
		Issue B.2.31: Degradation and destruction of cultural heritage is a problem.	B2.5.3. Ensure preparing detailed drainage and waterproofing projects in restoration works.	Osmangazi District, Yildirim District
2- Cultural Values - Conservation and Planning	C2.1- The realization of projects and applications in accordance with contemporary approaches and national and international conservation criteria in and around Cumalıkızık Village	Issue C.2.2: Restoration projects are not performed in accordance with international principles and standards. Authentic materials are not used in the applications and originality is lost due to incorrect interventions.	C2.1.1. Search national and international sources related to the procurement of authentic materials that will be used in the area during the restoration practices.	Yildirim District
		Issue C.2.3: Originality in buildings with a cultural value is lost due to the rapid restorations and tendency process although being constructed according to the original.	C2.1.2. Continue to the works in the conservation-utilisation balance and identify buildings primarily need restoration.	Yildirim District
		Issue C.2.1: Controls should be carried out during the restoration applications.	C2.1.3. Ensure that ICOMOS Effect Assessment Report is taken into account for all the projects in and around Cumalıkızık Management Site.	Yildirim District
		Issue C.2.5: There is a need for qualified staff and experts in restoration.	C2.1.4. Increase the number of experts like art historians, archaeologists, architects specializing in restoration, restorers in public sector and companies that are working in the conservation area.	Yildirim District
		Issue C.2.4: The conservation and development decisions are not being applied correctly.	C2.1.5. Ensure that companies doing restoration work have experienced and certified restoration staff, generate a group of young locals to do some maintenance in conventional ways, develop a communication system that can provide coordination.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.2.6: Some of the structures built in and around the village are not suitable for historical pattern and architecture.	C2.1.6. Introduce and reward the successful restoration applications in order to support good practices.	Yildirim District
		Issue C.2.7: Survey and restoration projects are started.	C2.1.6. Introduce and reward the successful restoration applications in order to support good practices.	Yildirim District
2- Cultural Values - Conservation and Planning	C2.2- Revealing the historical and cultural assets - concrete and abstract - peculiar to the village, increase research and archiving studies	Issue C.2.9: Cultural areas are seen as commercial goods and transformation of the village into a film set under the effect of popular culture damages the environment and the historical pattern.	No actions	
		Issue C.2.12: A detailed archaeological research has not been done yet. Studies should be done at a scale of research and excavations.	C2.2.1. Establish a heritage information system for the access of information on property, zoning status, photos, inventory sheets, resolutions by relevant institutions on planned, continuing or completed projects.	Yildirim District
		No issue assertions	C2.2.2. Rearrange the village museum according to contemporary museum standards for the display of cultural and archaeological assets.	Yildirim District
		Issue C.2.15: Traditions are partially going on, the area has a story of its own, academic studies about the village are carried out.	C2.2.3. Complete the inventory of village cultural assets (inventory sheets, current projects, written literature, verbal history, conservation history, photo archive, etc.) and collect them in the village library which is connected to the museum.	Yildirim District
		Issue C.2.8: Intangible cultural heritage disappears.	C2.2.4. Promote the publication of research studies aimed at identifying intangible cultural assets (For example, local food culture, village plays and research of village plays, research in to handcrafts specific to the village.	Yildirim District
		Issue C.2.14: Village has a natural pattern and natural beauties in addition to its history, cultural structure and pre- Ottoman history.	C2.2.4. Promotion of the publication of research studies aimed at identifying intangible cultural assets (For example, local food culture, village plays and research of village plays, research in to handcrafts specific to the village.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.2.13: There are illegal excavations.	C2.2.5. Examine the cultural layers (remains of a Byzantine Monastery) in Cumalıkızık and surroundings.	Yildirim District
		Issue C.2.11: The village specific events cannot be practiced.	C2.2.6. Support material and moral incentives for public administrators to keep local cultural and folkloric traditions alive (holding this rituals like village weddings, henna ceremonies etc. at regular intervals).	Yildirim District
		Issue C.2.10: Knowledge about the village should be transferred to young people and the next generations.	C2.2.7. Create programs (annual festivals etc.) that express the connection that Cumalıkızık has with the other Kizik villages and its Oguz-Yoruk identities.	Yildirim District
2- Cultural Values - Conservation and Planning	C2.3- Protect and conserve the natural assets around this historic rural settlement as a whole	Issue C.2.18: Buffer zone area around the village is not controlled and constructions cause the destruction of agricultural lands.	C2.3.1. Revise Conservation Master Plan in a transparent way to include not just the village but the surrounding areas with an aim to ensuring agricultural sustainability.	Yildirim District
		Issue C.2.20: The entire village is a civil architecture example of rural settlements.	C2.3.2. Establish a GIS database to be able to map monthly, quarterly and six-monthly work carried out in Cumalıkızık by all institutions on an interactive map.	Yildirim District
		Issue C.2.17: Development plan for protection is not up to date.	C2.3.3. Create a unit in Cumalıkızık to receive feedback about the Conservation Master Plan, respond to demands from the village and settle disputes.	Yildirim District
		Issue C.2.16: Planning studies should be done for an integrating protection plan and to keep balance of conservation and utilization.	C2.3.4. Create an urban design guide in harmony with the Conservation Master Plan and the village identity and its surroundings.	Yildirim District
		Issue C.2.19: Design standards should be identified in harmony with the historical texture.	C2.3.4. Create an urban design guide in harmony with the Conservation Master Plan and the village identity and its surroundings.	Yildirim District
2- Cultural Values - Conservation and Planning	C2.4- Determination of indicators related to the degradation and destruction of cultural heritage	Issue C.2.23: Authentic architectural features exist along with living people.	No actions	
		Issue C.2.21: A structure with a new building permission that is built with concrete will set a precedent for the villagers.	C2.4.1. Determine examples of civil architecture that are uninhabited or have changed ownership.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.2.22: Non-original applications are made to the buildings including those purchased by the state.	C2.4.2. Update and approve registration sheets.	Yildirim District
3- Social - Economic - Environmental - Quality of Life	B3.1- Developing the cultural use of areas to enable the maintenance of the traditional culture and character by hosting social and cultural events	Issue B.3.3: The visitor profile of Khans Area is not diverse, and shopping mall customers cannot be encouraged to go to the bazaar.	No actions	
		Issue B.3.1: The area is only considered as economic resource and socio- cultural factors are pushed aside because mono-functional structure of central Bursa isolates Khans area from the city.	B3.1.1. Provide balance between cultural values and socio- economic status by ensuring the active participation of public and corporate collaboration.	Osmangazi District, Yildirim District
		Issue B.3.5: Khans area starts integrating into the urban fabric and becoming a point of attraction for people to meet and gather as well as administrative and cultural buildings (city museum, theatre and cultural centres) next to commercial buildings. There are also indoor and outdoor spaces and authentic recreation venues.	B3.1.2. Organise events and affairs emphasizing neighbourhood culture in the city or in the Management Area.	Osmangazi District, Yildirim District
		Issue B.3.5: Khans area starts integrating into the urban fabric and becoming a point of attraction for people to meet and gather as well as administrative and cultural buildings (city museum, theatre and cultural centres) next to commercial buildings. There are also indoor and outdoor spaces and authentic recreation venues.	B3.1.3. Organise shopping festivals in the Bazaar like BTSO shopping festivals, etc.	Osmangazi District, Yildirim District
		Issue B.3.2: Students are unable to adapt to the city centre.	B3.1.4. Encourage events with cultural and social concepts (exhibitions, fairs, street festivals, concerts, summer cinema etc.) for organisations or groups interested in fine arts (literature, painting, music, fashion etc.) and identify suitable areas for them.	Osmangazi District, Yildirim District
		Issue B.3.4: The profile of the public living around the Complexes varies due to changing socio-economic conditions.	B3.1.5. Conduct research and survey studies to determine and diversify the profile cultural heritage users (children, youth, adult, elderly), and evaluate their results.	Osmangazi District, Yildirim District
		Issue B.3.2: Students are unable to adapt to the city centre.	B3.1.6. Organize activities for university students (music, book sales, fairs, exhibitions, etc.) and	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
			support institutions offering training programs and seminars in the area.	
		No issue assertions	B3.1.7. Use media web sites etc. more effectively to spread cultural activities across Bursa.	Bursa General
3- Social - Economic - Environmental - Quality of Life	B3.2- Creation of a sustainable financial model with the participation and cooperation of relevant institutions and organizations.	Issue B.3.10: There is a need for sales areas around the Complexes.	No actions	
		Issue B.3.12: Street vendors and informal trade should be restrained.	No actions	
		Issue B.3.15: There is an increase in the number of young people showing interest in traditional arts and Sultan Complexes conserve their original religious or commercial uses like soup kitchens as a part of socio-economic life.	No actions	
		Issue B.3.14: Bazaar culture should be kept alive in Khans area where merchants take responsibility for this culture and the khans.	B3.2.1. In order to contribute to the organisation of the economic structure of the region, develop a structure together with the local community and expert organizations to increase trust of customers and to determine commercial functions appropriate for the area.	Osmangazi District, Yildirim District
		Issue B.3.8: The number of shopping malls increases rapidly in the city centre.	B3.2.2. Determine product and service standards and conduct studies for tradesmen to develop bazaar (shopkeeper) culture.	Osmangazi District, Yildirim District
		Issue B.3.13: Quality and business ethics are being lost.	B3.2.2. Determine product and service standards and conduct studies for tradesmen to develop bazaar (shopkeeper) culture.	Osmangazi District, Yildirim District
		Issue B.3.9: Khans Area is closed on weekends (Sundays) and after certain hours.	B3.2.3. Conduct studies to schedule the opening and closing hours of the bazaars and khans within Khans Area.	Osmangazi District, Yildirim District
		Issue B.3.6: Conservation-utilisation balance is problematic.	B3.2.4. Ensure sustainability by analysing past and present sectorial distribution, utilise structures based on this distribution with a balance between conservation-utilization.	Osmangazi District, Yildirim District
		Issue B.3.11: Small shopkeepers disappear gradually.	B3.2.5. Investigate the expectations of shops where disappearing crafts and products with cultural value are sold, develop recommendations.	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		No issue assertions	B3.2.6. Develop and promote e-commerce to increase local production.	Osmangazi District, Yildirim District
		Issue B.3.7: There is a need for a sustainable financial model.	B3.2.7. Offer grants and sponsorship opportunities for cultural and artistic events in the financial model to be created.	Osmangazi District, Yildirim District
3- Social - Economic - Environmental - Quality of Life	B3.3- Increasing quality of life and service offered considering urban environmental quality with the establishment of a balance between conservation and utilization	Issue B.3.18: Social spaces are requested for the inhabitants of the Complex areas, because the current spaces are misused.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	Osmangazi District, Yildirim District
		Issue B.3.19: Community request places for children and young people to spend time.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	Osmangazi District, Yildirim District
		Issue B.3.20: Urban infrastructure needs to be improved.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	Osmangazi District, Yildirim District
		Issue B.3.22: Natural urban landscape, monumental trees, topographic features and the city morphology are suitable for urban infrastructure renovation.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	Osmangazi District, Yildirim District
		Issue B.3.21: Environmental pollution and visual pollution is a problem in the area.	B3.3.2. Increase environmental awareness and develop programs to prevent environmental pollution.	Osmangazi District, Yildirim District
		Issue B.3.16: Urban and social structure should provide a sufficient quality to meet the everyday needs of those living in the area.	B3.3.3. Conduct studies for the use of sustainable and ecological energy sources for transportation, heating, lighting etc. and support for R&D studies in this regard.	Osmangazi District, Yildirim District
		Issue B.3.17: There is a need for green spaces and landscape elements in Khans Area, because	B3.3.4. Develop proposals for the creation of continuous and effective control mechanisms, monitor area-specific healthy urban parameters.	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		current landscaping is not appropriate to the historical fabric of the Complexes.		
3- Social - Economic - Environmental - Quality of Life	C3.1- Creating a financial model to enable the village to sustain its rural identity, ensure security	Issue C.3.1: Agricultural economy degrades because the village has gained touristic value.	C3.1.1. Support the development of agriculture and cooperatives, arrange organizations to share knowledge and experience with other provinces.	Yildirim District
		Issue C.3.6: Natural soil and flora and a variety of agricultural products are present in the village. Production continues albeit scant.	C3.1.2. Define organic and good agricultural practices, increase efficiency, search financial support for the implementation of drip feed irrigation systems.	Yildirim District
		Issue C.3.5: The village is in the middle of forest and agricultural lands and this position is important for social and economic sustainability, production, and tourism.	C3.1.3. Determine the product varieties to create a brand, develop ideas for the branding of traditional village products (chestnut, strawberry, raspberry, blackberry, cherry etc.).	Yildirim District
		Issue C.3.4: Agricultural lands are at risk due to the migrating population. Women and children are unable to work alone in the fields.	C3.1.4. Create a facility and organization for the processing and conservation of the agricultural products with participation of the local community.	Yildirim District
		Issue C.3.3: Hygienic places should be provided where village women can produce products together.	C3.1.5. Create monopoly marketing for auditing the hygiene and quality of Cumalıkızık branded products and investigate funding and sponsorship opportunities.	Yildirim District
		Issue C.3.2: Agricultural products are being plundered by foreigners and development is allowed on agricultural lands.	C3.1.6. Develop policies to encourage agricultural tourism, create activities related to agriculture that visitors can take part in.	Yildirim District
		No issue assertions	C3.1.7. Define areas within the village and Khans area for the sale of agricultural produce, raise awareness about the health benefits of the products.	Yildirim District
3- Social - Economic - Environmental - Quality of Life	C3.2-Create a sustainable finance model with the cooperation of relevant organizations and institutions	Issue C.3.12: There is an increased interest in technological advances in agriculture and organic farming, and efforts are made for drip feed irrigation systems.	No actions	
		Issue C.3.7: Village economy is in a bad state. A realistic economic plan should be prepared to revive the economy.	C3.2.1. Collaborate with locals and expert organizations to revive the economy of the area.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.3.11: Cultural areas are considered as commercial areas and taxes are charged to producers.	C3.2.2. Prioritise special incentives for the area to revive the socio-economic state (pension, health insurance, agriculture-tourism incentives etc.).	Yildirim District
		Issue C.3.10: Sale areas should be organized and continuity of product standards and pricing should be managed.	C3.2.3. Reorganize bazaar area.	Yildirim District
		Issue C.3.13: Efforts are made for chestnut growing and marketing village products started with the formation of a cooperative, and international and national partnerships are increased.	C3.2.4. Examine the products sold in the village in terms of their authenticity.	Yildirim District
		Issue C.3.9: Commercial areas should be organised and planned in the area, and public funds should be spent properly.	C3.2.5. Sustain and develop the flow of income, research for incentives and sponsorship.	Yildirim District
		Issue C.3.8: A sustainable finance model is needed.	C3.2.6. Identify the indicators to control of the operation of the financial model.	Yildirim District
3- Social - Economic - Environmental - Quality of Life	C3.3- The establishment of a balance between conservation and utilization, improving the quality of life with an aim for sustainable urban environmental quality and increase in efficiency of services	Issue C.3.17: A plan for the balance of conservation and utilization should be prepared.	C3.3.1. Investigate the compliance of environmental management, social and technical infrastructure services and current practices, work towards inter-agency cooperation and modernization of the system.	Yildirim District
		Issue C.3.18: There are problems with comfort levels in the houses.	C3.3.2. Establish balance between conservation and the necessities of everyday life, develop proposals ensuring the adequacy of inadequate resources (like health unit).	Yildirim District
		Issue C.3.16: Restrictions on heating, communication, natural gas, internet etc. decrease the quality of life.	C3.3.3. Develop ideas for the use of renewable energy sources.	Yildirim District
		Issue C.3.15: Spatial structure cannot entirely meet the expectations of visitors and users.	C3.3.4. Ensure the use of new technology for infrastructure needs in the area (for example the form of the road).	Yildirim District
		Issue C.3.14: Environmental pollution, the noise and visual pollution are created by the village bazaar.	C3.3.5. Develop environmental awareness, create programs to prevent environmental pollution.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
3- Social - Economic - Environmental - Quality of Life	C3.4- Create policies to prevent migration to allow sustainability of the historical and cultural structure of the village	Issue C.3.19: Negative social and physical effects such as abandoned buildings result from migration.	C3.4.1. Determine reasons for migration with surveys and focus group studies, create preventive strategies and solutions.	Yildirim District
		Issue C.3.21: There is a danger of loss of village culture because of the degradation of traditional village life.	C3.4.2. Ensure that all Cumalıkızık villagers, within or outside of the village, have a sense of belonging and contribute to all events related to the village.	Yildirim District
		Issue C.3.22: Newcomers are unable to fit in with locals.	C3.4.3. Research on how to prevent functional changes due to cultural and commercial pressure, find alternative solutions.	Yildirim District
		Issue C.3.20: Population becomes one-dimensional because young population leaves, only elderly and children stays.	C3.4.4. Prevent migration from the village, perform an income analysis on the village household income and create projects for this (like old temettuat books).	Yildirim District
3- Social - Economic - Environmental - Quality of Life	C3.5- Protection of natural environment and enabling sustainability of natural resources	Issue C.3.23: The increasing illegal development around the village causes problems for risk and disaster planning.	C3.5.1. Re-examine high scale plans particularly for the buffer zones, allow for rearrangements.	Yildirim District
		Issue C.3.25: Natural resources are being damaged.	C3.5.2. Develop projects for the protection of natural resources and agricultural areas.	Yildirim District
		Issue C.3.24: Environmental pollution is a problem.	C3.5.3. Develop educational programs with the local public regarding environmental pollution and prevention.	Yildirim District
		No issue assertions	C3.5.4. Prepare recycling projects for recyclable and special waste.	Yildirim District
4- Education and Awareness	B4.1- Increase awareness in those who work in, live in or visit the Management Area to ensure the protection and sustainability of cultural values	Issue B.4.7: Shopkeepers in the bazaar are not able to keep up with the modern times and cannot protect their traditions.	No actions	
		Issue B.4.9: Major companies in Bursa have low awareness in social responsibility projects.	No actions	
		Issue B.4.2: The new generation has an information deficit.	B4.1.1. Make plans regarding education, determine who-what-where-how educate, research for resources and funds.	Osmangazi District, Yildirim District
		Issue B.4.1: Conservation awareness is low and relevant staff is not competent.	B4.1.2. Increase corporate participation in conservation related events at national and	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
			international scale for the staff of conservation agencies and organizations.	
		Issue B.4.5: Guides do not have adequate knowledge and accumulation of information regarding complexes.	B4.1.3. Arrange cultural tours to increase cultural awareness for those who live and work in the Management Area.	Osmangazi District, Yildirim District
		Issue B.4.5: Guides do not have adequate knowledge and accumulation of information regarding complexes.	B4.1.4. Inform and guide owners of registered buildings in the Management Area about legislations and material usage with the leadership of mukhtars.	Osmangazi District, Yildirim District
		Issue B.4.3: Lecturers/teachers who teach the subject of cultural heritage are not informed sufficiently.	B4.1.5. Raise awareness of primary and secondary education teachers about the protection of cultural heritage.	Bursa General
		Issue B.4.8: School age children needs awareness raising activities.	B4.1.5. Raise awareness of primary and secondary education teachers about the protection of cultural heritage.	Bursa General
		Issue B.4.4: Younger generations cannot convey the importance and value of historical heritage.	B4.1.6. Identify methods to raise awareness of pupils about cultural and historic heritage.	Bursa General
		Issue B.4.6: Image of bazaars is weakened and particularly young people lost interest in them.	B4.1.6. Identify methods to raise awareness of pupils about cultural and historic heritage.	Bursa General
		Issue B.4.5: Guides do not have adequate knowledge and accumulation of information regarding complexes.	B4.1.7. Ensure that individuals or institutions providing guidance and consultancy have adequate knowledge on the history of nominated World Heritage areas and their relations with each other.	Bursa General
		Issue B.4.11: Social networks are employed well and cultural tours are organised.	B4.1.8. Make cultural shows more attractive on local TV and support with historic stories.	Bursa General
		Issue B.4.10: The interest of public and local administrations in history continues to decline.	B4.1.9. Produce video, cd, cartoons, visual teaching aids, as well as the development of simple photographic and printed teaching aids which are educational regarding cultural heritage under the supervision of conservation experts, and create areas which can be used and which will attract attention, create a heritage information kit to be used in schools.	Bursa General
		Issue B.4.6: Image of bazaars is weakened and particularly young people lost interest in them.	B4.1.10. Identify and reward people who devoted themselves materially and spiritually for the	Bursa General

Planning theme	Objectives	Associated issue assertions	MPA	District
			safeguarding of tangible and intangible cultural heritage and use local media to encourage others.	
4- Education and Awareness	C4.1- Increase awareness in those who work in, live in or visit the Management Area to ensure the protection and sustainability of cultural values	Issue C.4.4: Political pressure creates a feeling of unease due to the possibility of political changes in the management plan.	No actions	
		Issue C.4.8: Young people in the village are unaware of the history of the village.	C4.1.1. Examine and determine topics for training programmes (preservation - social and economic values - quality of life - tourism, etc.) about the village history, organise them in cooperation with universities, local governments, education institutions, and civil society institutions.	Yildirim District
		Issue C.4.10: Awareness studies are being organised in the village due to increasing awareness of NGOs.	C4.1.1. Examine and determine topics for training programmes (preservation - social and economic values - quality of life - tourism, etc.) about the village history, organise them in cooperation with universities, local governments, education institutions, and civil society institutions.	Yildirim District
		Issue C.4.6: Inhabitants are open to innovation and education.	C4.1.2. Prepare awareness programs regarding tangible and intangible cultural assets for public workers, managers, teachers and students.	Yildirim District
		Issue C.4.9: The public has wrong ideas and opinions about cultural heritage and conservation.	C4.1.2. Prepare awareness programs regarding tangible and intangible cultural assets for public workers, managers, teachers and students.	Yildirim District
		Issue C.4.1: Traditional village life is starting to degrade due to unplanned development of socio-economic structure and the effect of popular culture.	C4.1.3. Provide training in marketing techniques and about consumer rights to producers and villagers who sell the products.	Yildirim District
		Issue C.4.1: Traditional village life is starting to degrade due to unplanned development of socio-economic structure and the effect of popular culture.	C4.1.4. Create programs to teach modern agricultural methods within the village, provide training in cooperatives.	Yildirim District
		Issue C.4.2: Woodworking has been forgotten.	C4.1.5. Create training and certificate programs in restoration, maintenance and repair for the villagers.	Yildirim District
		Issue C.4.3: Qualified restorers and experts are needed in restorations.	C4.1.5. Create training and certificate programs in restoration, maintenance and repair for the villagers.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		No issue assertions	C4.1.6. Provide information and referrals for the owners of registered buildings in the Management Area on legislations regarding conservation etc.	Yildirim District
		Issue C.4.6: Inhabitants are open to innovation and education.	C4.1.7. Create training programs for villagers to become tour guides.	Yildirim District
		Issue C.4.7: Intangible cultural heritage values are forgotten.	C4.1.8. Ensure sharing correct information on tangible and intangible values on social media and internet.	Yildirim District
		Issue C.4.11: Village inhabitants care about the history and natural life and aware of the culture of belonging in Cumalıkızık.	C4.1.9. Enable village inhabitants to share the knowledge and experience of older generations.	Yildirim District
		No issue assertions	C4.1.10. Organise awareness activities to control illegal construction within the village.	Yildirim District
		Issue C.4.5: Local administrators become more interested and sensitive to local culture.	C4.1.11. Enable coverage of Cumalıkızık in national media broadcasts or programs related to culture.	Yildirim District
5- Accessibility - Transportation	B5.1- Better integration of the intercity transportation points into the current public transport system and to help develop (mostly based on public transport) it	Issue B.5.1: Intercity traffic axes passing through the city center create negative effects and congestion.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	Bursa General
		Issue B.5.2: Transportation on rubber wheels having negative effects on cultural heritage is the most used transportation mean in the area.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	Bursa General
		Issue B.5.3: Vibrations of the traffic, especially of heavy vehicles harm the complexes.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	Bursa General
		Issue B.5.5: Environmental and Transportation Main Map are being developed at an urban scale of 1/100.000.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	Bursa General
		Issue B.5.6: High Speed Train between Izmir and Istanbul is passing through Bursa and bonds with Istanbul are getting stronger due to both sea and railway transportation.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	Bursa General
		Issue B.5.5: Environmental and Transportation Main Map are being developed at an urban scale of 1/100.000.	B5.1.2. Organize workshops related to Transportation Master Plan, build a fast, easy and accessible public transport system at urban scale and help to develop it.	Bursa General

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue B.5.4: Public transport is insufficient in terms of accessing the Complexes from the city centre.	B5.1.3. Increase the number of public transport lines going to the city centre from intercity stations; conduct transfer and pricing studies for transfers between different types of transport by creating accessible transfer centres.	Bursa General
		Issue B.5.4: Public transport is insufficient in terms of accessing the Complexes from the city centre.	B5.1.4. Develop an interactive user system related to transportation.	Bursa General
		Issue B.5.4: Public transport is insufficient in terms of accessing the Complexes from the city centre.	B5.1.5. Create pre-paid and periodical private travel cards for local people and foreign tourists and integrate all these into the current transportation system.	Bursa General
5- Accessibility - Transportation	B5.2- Improving the transportation facilities in Bursa local transportation system for World Heritage Candidate Sites and making arrangements related to pedestrian priority and accessibility	Issue B.5.11: Accessibility is limited for everybody.	B5.2.1. Take decisions of accessibility of the Management Site by considering the user profile and take the required steps accordingly.	Bursa General
		Issue B.5.7: There is no proper pedestrian route between Complexes Area and Khans Area and pedestrian ways are not disabled-friendly.	B5.2.2. Develop the pedestrian, vehicle, transportation route and signalization systems according to the universal design and healthy urban principles by considering the needs of all different sections of society.	Bursa General
		Issue B.5.10: There are not enough informative and direction signs.	B5.2.3. Arrange the signage for pedestrians and vehicles in the Urban Design Guide of Bursa Historical City Centre.	Osmangazi District, Yildirim District
		Issue B.5.12: Complexes as the focal points in the city are on different axes. There is a need for high speed transportation means due to the increasing traffic and arrangements for pedestrian routes.	B5.2.4. Define the routes connecting Khans Area and Complexes; by carrying out surveys related to alternative public transport systems (cable cars, chair lift and/or nostalgic train/tram) and making related regulations.	Osmangazi District, Yildirim District
		Issue B.5.8: Cultural tours and tourism activities increase the need of pedestrian accessibility.	B5.2.5. Connect the Complex areas with pedestrian and green axes; utilise vehicles specially designed for the Management Site and arrange ring services on the defined routes.	Osmangazi District, Yildirim District
		Issue B.5.9: Current sidewalks are not standard and there are no paths for bicycles.	B5.2.6. Arrange pedestrian and cycling routes for the Management Site, which is integrated with other systems.	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
5- Accessibility - Transportation	B5.3- Solving the issues related to parking in the Management Site for users and visitors	Issue B.5.16: Low number of parking spots are available for Tourist buses.	B5.3.1. Conduct surveys about parking needs in the Management Site by considering the tourism potential.	Osmangazi District, Yildirim District
		Issue B.5.15: There is a negative effect of user profile in Khans Area with the changing socio-economic needs and the increase in transportation and parking facilities.	B5.3.2. Identify the current capacity of the car parks in and around the Management Site.	Osmangazi District, Yildirim District
		Issue B.5.15: There is a negative effect of user profile in Khans Area with the changing socio-economic needs and the increase in transportation and parking facilities.	B5.3.3. Identify strategies and conduct surveys for developing closed and open car parks in available areas starting from the underground ones.	Osmangazi District, Yildirim District
		No issue assertions	B5.3.4. Prevent the conversion of registered but demolished building areas into car parks.	Osmangazi District, Yildirim District
		Issue B.5.13: The traffic of Muradiye Complex is heavy especially on Tuesdays due to the open bazaar.	B5.3.5. Conduct transportation analysis directed at the Management Site and re-evaluate the road levels and opening-closing times.	Osmangazi District, Yildirim District
		Issue B.5.14: There are issues related to loading, unloading and service needs in Khans Area.	B5.3.6. Define get-on and get-off points for the tourist buses and project them.	Osmangazi District, Yildirim District
		Issue B.5.16: Low number of parking spots are available for Tourist buses.	B5.3.7. Solve the parking issue and control both the car parks and places used as car parks in the Management Area.	Osmangazi District, Yildirim District
5-Accessibility - Transportation	C5.1- Better integration and development of Cumalıkızık transportation links (from other provinces and the city centre) in Bursa public transport network (mainly public transport)	Issue C.5.6: Village is close to the city.	C5.1.1. Determine main accessibility routes for Cumalıkızık Management Area.	Yildirim District
		Issue C.5.4: Even though there is a motorway access, rural settlement identity is kept.	C5.1.2. Organise workshops related to the Transportation Master plan.	Yildirim District
		Issue C.5.1: Transportation facilities are limited in the city.	C5.1.3. Increase the number of public transport lines from inter- city travel to city centre and from there to Cumalıkızık village, work on creating accessible transfer centres and charges.	Yildirim District
		Issue C.5.1: Transportation facilities are limited in the city.	C5.1.4. Integrate Cumalıkızık village into the interactive transportation system.	Yildirim District
		Issue C.5.1: Transportation facilities are limited in the city.	C5.1.5. Create special prepaid travel cards aimed at local and foreign tourists and integrate them in to the current transport system.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.5.3: Transportation links between nearby Kizik villages are limited.	C5.1.6. Create transport links to the other Kizik villages while maintaining the texture of the area, and integrate them with the transportation master plan and conservation plan.	Yildirim District
		Issue C.5.5: There is an increased interest in nature and hiking.	C5.1.7. Increase the number of routes with rubber tyres.	Yildirim District
		No issue assertions	C5.1.8. Create a connection to the rail system on the Ankara road.	Yildirim District
		Issue C.5.2: Cumalıkızık sign is not being noticed on Ankara Road.	C5.1.9. Rearrange the signage on the Ankara road.	Yildirim District
5-Accessibility - Transportation	C5.2- Increase the transport facilities to Cumalıkızık village and public areas with pedestrian priority and access for every section of society in the Bursa urban transport system	Issue C.5.8: There is a need for accessibility for everyone.	C5.2.1. Increase the public transport routes that can be used by everyone.	Yildirim District
		Issue C.5.7: There is accessibility and traffic problem in the village.	C5.2.2. Develop pedestrian, vehicle, transportation route and signalling systems while keeping in mind all the needs of society and stick to universal design criteria.	Yildirim District
		Issue C.5.9: Transportation should be provided to public areas in the village.	C5.2.3. Provide ring services with specially designed public vehicles in the village.	Yildirim District
		Issue C.5.8: There is a need for accessibility for everyone.	C5.2.4. Create proposals for walking routes in the village and natural areas.	Yildirim District
		Issue C.5.10: Parking is a problem within the village.	C5.2.5. Determine appropriate parking areas outside of the area, block vehicle entrance by visitors to the village.	Yildirim District
6-Tourism - Promotion - Visitor Management	B6.1- Turn the World Heritage Candidate Areas in to a centre of attraction and ensure visitors spend quality time there	Issue B.6.3: The number of people visiting for cultural tourism is small because there is no definition of the targeted tourists.	B6.1.1. Analyse the current facilities in the Management Plan area taking into account its touristic potential and the various needs of the area (accommodation, eating- drinking, WC, baby care, social, cultural).	Bursa General
		Issue B.6.7: The Tourism Master Plan is being prepared and local and foreign tourism demand is increasing with alternative tourisms in the city like congress, thermal, nature, winter tourism etc.	B6.1.1. Analyse the current facilities in the Management Plan area taking into account its touristic potential and the various needs of the area (accommodation, eating- drinking, WC, baby care, social, cultural).	Bursa General

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue B.6.1: A tourism master plan is needed.	B6.1.2. Analyse and develop the Tourism Master Plan, currently in progress.	Bursa General
		Issue B.6.2: Cultural heritage creates unplanned effect on the development of culture tourism.	B6.1.3. Create thematic cultural trip routes, prepare cultural maps, determine main themes of routes.	Bursa General
		Issue B.6.5: Accommodation facilities should be provided for the short periods of stay especially in the surrounding areas of Yildirim and Yesil Complexes.	B6.1.4. Support qualified boutique hotels and family hostels, determine organisations and institutes that will provide financial support.	Bursa General
		Issue B.6.4: A trip route should be defined for tourists coming to the region.	B6.1.5. Evaluate visitor satisfaction.	Bursa General
		Issue B.6.6: Touristic busses can wait for a restricted time frame because their number is few and parking is a problem.	B6.1.6. Develop visitor plans for the nominated World Heritage sites and identify stakeholders.	Bursa General
6-Tourism - Promotion - Visitor Management	B6.2 Determine efficient promotion strategies nationally and internationally, formation of promotion and information centres	Issue B.6.8: Publicity and promotion should be provided on internet.	B6.2.1. Prepare promotion material (written and visual) to be published in national and international media to reach a greater audience for introduction of the Management Area.	Osmangazi District, Yildirim District
		Issue B.6.11: Understandable and readily available written and visual documents are requested to help visitors in perceiving the heritage area.	B6.2.1. Prepare promotion material (written and visual) to be published in national and international media to reach a greater audience for introduction of the Management Area.	Osmangazi District, Yildirim District
		Issue B.6.15: Tourism fair increased the recognition of the area and disseminated knowledge about the silk road.	B6.2.2. Improve relations with national and international organisations, promote and represent Bursa, create medium scale projects, ensure maximum use of national and international funds.	Osmangazi District, Yildirim District
		Issue B.6.12: Local products need to be marketed and promoted.	B6.2.3. Declare 2014 as year of Bursa by UNESCO for the revival of endangered crafts and increase awareness, organise competitions for the presentation of promotional objects and local products.	Bursa General
		Issue B.6.16: Branding studies and local tourism initiatives increase in the Khans area.	B6.2.3. Declare 2014 as year of Bursa by UNESCO for the revival of endangered crafts and increase awareness, organise competitions for the presentation of promotional objects and local products.	Bursa General

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue B.6.10: Souvenirs that will promote the area and Bursa's values should be designed.	B6.2.4. Disseminate activities for the promotion of intangible cultural heritage.	Bursa General
		Issue B.6.14: Intangible cultural heritage is being forgotten.	B6.2.4. Disseminate activities for the promotion of intangible cultural heritage.	Bursa General
		Issue B.6.9: Promotion leaflets for the Complexes are requested.	B6.2.5. Prepare information signs, sheets, brochures, pamphlets to promote the area and its key points through collaboration with experts in the field, determine slogans.	Bursa General
		Issue B.6.13: Information and guidance signs should be provided.	B6.2.5. Prepare information signs, sheets, brochures, pamphlets to promote the area and its key points through collaboration with experts in the field, determine slogans.	Bursa General
		Issue B.6.17: Technology and internet is being used increasingly.	B6.2.6. Develop tourist guidance systems following technological advances.	Osmangazi District, Yildirim District
6-Tourism - Promotion - Visitor Management	B6.3- Establishment of fully equipped tourism promotion offices and implementation of an efficient system to increase quality standards of guidance services	Issue B.6.18: The number of tourism offices is not enough and their locations are inaccessible.	B6.3.1. Constitute an effective system of fully equipped tourism offices and improve the quality of guidance services.	Osmangazi District, Yildirim District
		Issue B.6.19: Information offices and guides are requested to discover the locations of services in the complexes area.	B6.3.1. Constitute an effective system of fully equipped tourism offices and improve the quality of guidance services.	Osmangazi District, Yildirim District
		Issue B.6.20: The number of cultural tours is increasing due to the location of Bursa as on tourist trip routes and as a meeting point for them.	B6.3.2. Enable showing short films depicting the importance and history of the nominated World Heritage sites on public transport, in museums, and in public areas.	Osmangazi District, Yildirim District
6-Tourism - Promotion - Visitor Management	C6.1- Create tourism infrastructure to sustain the original identity of the living Cumalıkızık village	Issue C.6.3: Tourist density is high due to the uncalculated and unplanned capacity of the village.	No actions	
		Issue C.6.4: Village is unable to manage tourist pressure.	No actions	
		Issue C.6.1: A local tourism plan integrated to the Bursa Tourism Master Plan is needed.	C6.1.1. Create a protection and development vision supported by alternative tourism opportunities, ensure integration into higher scale plans.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.6.2: There is a need for a visitor management plan.	C6.1.2. Collect data for the preparation of the visitor management plan and to calculate the capacity of the area.	Yildirim District
		Issue C.6.8: There is an increasing interest in cultural and natural tourism as alternative tourism.	C6.1.3. Increase variety of events specific to the area, enable the development of tourism.	Yildirim District
		Issue C.6.7: Development trend in alternative tourism is low.	C6.1.4. Create a themed trip route for the area and near surroundings, determine focus points of the route.	Yildirim District
		Issue C.6.5: Accommodation is a problem for visiting tourists.	C6.1.5. Determine ways of meeting the need for accommodation and determine standards, increase bed capacity in accommodation facilities, open up the original structures to accommodation (boarding), provide accommodation in near vicinity.	Yildirim District
		Issue C.6.6: There is a need for standards specific to the area.	C6.1.6. Support transportation with a ring service to the other management areas and city centre due to the relationship the village has with these areas.	Yildirim District
6-Tourism - Promotion - Visitor Management	C6.2- Creation of policies to increase awareness about Cumalıkızık Village as a national and international tourism destination	Issue C.6.11: Tourism focus is only on the village square.	No actions	
		Issue C.6.12: Village is gradually becoming a film platform due to the effect of popular culture.	No actions	
		Issue C.6.16: Local media is being used for promotion of the village.	No actions	
		Issue C.6.9: Cumalıkızık is not promoted well.	C6.2.1. Determine effective promotional strategies, support the branding process and ensure its continuity.	Yildirim District
		Issue C.6.13: Cumalıkızık is known throughout Turkey.	C6.2.2. Prepare a national and international documentary on the historical and cultural structure of the village, create joint projects to strengthen international relations.	Yildirim District
		Issue C.6.14: Cumalıkızık is on the historical Silk Road and studies are started to promote it.	C6.2.3. Invite national and international travel writers to the area to increase awareness of the area.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.6.10: There is not any branded products.	C6.2.4. Bring local products like chestnut to a certain quality and order, enable the sale and promotion of them.	Yildirim District
		Issue C.6.15: Festivals where values specific to the area are promoted are being organised.	C6.2.5. Spread efforts to promote the intangible cultural assets of the village.	Yildirim District
		Issue C.6.15: Festivals where values specific to the area are promoted are being organised.	C6.2.6. Organise the traditional raspberry festival in the village to be held on an international level.	Yildirim District
6-Tourism - Promotion - Visitor Management	C6.3- Preparation of a system to increase the quality and standards of the tourism promotion officers and guide services	Issue C.6.20: Number of Cumalıkızık volunteers are increasing both from local and abroad.	C6.3.1. Support promotion activities to create training programmes (i.e. language courses, informative programmes about the site and its authenticity) for villagers and increase general awareness about the site with tourist information offices in the village.	Yildirim District
		Issue C.6.19: There should be more tourism offices.	C6.3.2. Establish a permanent consultancy office in the village.	Yildirim District
		Issue C.6.17: There is a need for guides to promote the village.	C6.3.3. Prepare English and Turkish information signs for the location and history of the village, to be placed in various points of the village.	Yildirim District
		Issue C.6.17: There is a need for guides to promote the village.	C6.3.4. Prepare English and Turkish information signs for the monumental and civil architecture structures in the village.	Yildirim District
		Issue C.6.18: More promotion events should be organised.	C6.3.5. Create visitor centres in the social areas of the village and its surroundings, showing of a short film describing the establishment of the Ottoman empire and the relationship with the other management areas.	Yildirim District
7- Emergency and Disaster Management	B7.1- Determination of risks and dangers, implementation of policies in close cooperation with stakeholders	Issue B.7.5: Educational and informational programs are created in cooperation with BEBKA and the governor, and infrastructure and urban transformation projects being considered, and fire department being strengthened with new premises.	No actions	
		Issue B.7.2: Precautions taken against disasters such as fire and earthquake are inadequate.	B7.1.1. Identify risks and dangers regarding disaster management, detect insufficiencies, and prepare analysis maps.	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue B.7.1: Disaster management preparations should be complete against disasters such as earthquake, fire etc.	B7.1.2. Prepare emergency action plans.	Osmangazi District, Yildirim District
		Issue B.7.3: The area is highly sensitive for nature and human oriented risks due to its location on 1st degree earthquake belt.	B7.1.2. Prepare emergency action plans.	Osmangazi District, Yildirim District
		Issue B.7.4: Accessibility for intervention should be provided in case of disasters.	B7.1.3. Create a transportation plan to ease access in case of an emergency, and identify alternative routes.	Osmangazi District, Yildirim District
		Issue B.7.4: Accessibility for intervention should be provided in case of disasters.	B7.1.4. Develop strategies to access local residents of inaccessible areas by vehicles such as Fire Cabinet Project, Placement of Hydrants, etc., and acquire small vehicles.	Osmangazi District, Yildirim District
7- Emergency and Disaster Management	B7.2-Ensuring precautionary measures in case of emergency situations of disasters at cultural assets	Issue B.7.10: There are damp and drainage issues in historical buildings.	No actions	
		Issue B.7.11: Infrastructure is inadequate for flooding in Khans Area during heavy rains in the winter.	No actions	
		Issue B.7.9: Some plans may cause danger in terms of conservation and construction.	B7.2.1. Ensure the provision of interdisciplinary emergency and evacuation plans for historical buildings.	Osmangazi District, Yildirim District
		Issue B.7.8: Buildings are becoming dilapidated and posing danger for various reasons.	B7.2.2. Examine intervention techniques used internationally with historical monuments, determine forms of intervention.	Osmangazi District, Yildirim District
		No issue assertions	B7.2.3. Arrange all forms of disaster awareness training related to earthquakes and disaster prevention.	Osmangazi District, Yildirim District
		No issue assertions	B7.2.4. Ensure effective controls to keep the process efficient.	Osmangazi District, Yildirim District
		Issue B.7.7: There is a risk of loss of cultural assets and the historical texture of the areas surrounding Complexes due to fire and earthquakes.	B7.2.5. Prepare risk maps for infrastructure.	Osmangazi District, Yildirim District
		Issue B.7.12: Visible infrastructures like power and phone lines create visual pollution.	B7.2.6. Develop projects to identify risks of and prevent drawbacks of intense electromagnetic	Osmangazi District, Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
			pollution from nearby base stations, transformers, high voltage lines.	
		Issue B.7.13: Determining Criteria for Risk Management project is started as part of the historical and cultural heritage conservation efforts.	B7.2.6. Develop projects to identify risks of and prevent drawbacks of intense electromagnetic pollution from nearby base stations, transformers, high voltage lines.	Osmangazi District, Yildirim District
		Issue B.7.6: Structural soundness of cultural assets against earthquakes should be controlled.	B7.2.7. Conduct material analysis on historical buildings to find out the intensity of wooden structures as a part of fire risk assessment.	Osmangazi District, Yildirim District
7- Emergency and Disaster Management	B7.3- Development of security policies	Issue B.7.14: Security is a problem.	B7.3.1. Identify gaps in the current system to strengthen the accountability of public security services.	Osmangazi District, Yildirim District
		Issue B.7.14: Security is a problem.	B7.3.2. Develop projects for security systems such as BTCH, CCTV systems.	Osmangazi District, Yildirim District
		Issue B.7.15: Establishing conservation safety in the area is not successful.	B7.3.3. Support with the expert personnel on security infrastructure in case of disaster or emergency.	Osmangazi District, Yildirim District
		Issue B.7.15: Establishing conservation safety in the area is not successful.	B7.3.4. Inspect licenses of businesses for risk of fire within the Management Area.	Osmangazi District, Yildirim District
7- Emergency and Disaster Management	C7.1- Ensure precautions against emergencies and natural disasters are taken in and around the village	Issue C.7.1: Natural disasters are damaging the buildings because restorations are not resistant for disasters.	C7.1.1. Determine risks and dangers regarding the village and its surroundings and natural assets, determine inadequacies and prepare analysis maps.	Yildirim District
		Issue C.7.2: Life safety against landslides is not provided, particularly in the touristic route of Cin Gap area.	C7.1.2. Prepare area specific emergency action plans, evaluate Cumalıkızık village by JICA and Provincial Directorate of Disasters and Emergencies.	Yildirim District
		Issue C.7.3: Emergency and disaster response is difficult due to narrow streets of the village and limited accessibility.	C7.1.3. Prepare emergency exits and evacuation plans for the required buildings in the village.	Yildirim District
		Issue C.7.4: Precautions should be taken as response to fire risk.	C7.1.4. Research international response techniques when dealing with historical artefacts, define emergency actions.	Yildirim District
		Issue C.7.4: Precautions should be taken as response to fire risk.	C7.1.5. Set up a team of emergency responders made up of village inhabitants and provide training.	Yildirim District

Planning theme	Objectives	Associated issue assertions	MPA	District
		Issue C.7.3: Emergency and disaster response is difficult due to narrow streets of the village and limited accessibility.	C7.1.6. Expand plans for residents who live in areas inaccessible by vehicles (Fire Cabinet Project, Placement of Hydrants, etc.) and acquire small vehicles.	Yildirim District
		No issue assertions	C7.1.7. Prepare a disaster information guide (where to find fresh water after a disaster etc.).	Yildirim District
		Issue C.7.5: Infrastructure should be improved.	C7.1.8. Determine infrastructure risks in Cumalıkızık village.	Yildirim District
		Issue C.7.4: Precautions should be taken as response to fire risk.	C7.1.9. Inspect business licenses in the context of fire risks of businesses within the Management Area.	Yildirim District
7- Emergency and Disaster Management	C7.2- Develop policies to increase security	Issue C.7.6: Security should be improved.	C7.2.1. Develop the security infrastructure in the village, support with expert workers.	Yildirim District
		Issue C.7.8: Tourists are entering village homes without permission.	C7.2.1. Develop the security infrastructure in the village, support with expert workers.	Yildirim District
		Issue C.7.7: There is a need for security camera system.	C7.2.2. Ensure area control with a Special Security Unit.	Yildirim District

Appendix VII: Bursa and Cumalıkızık: Audit Design Knowledge Transfer Assessment Results

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.1.1: Large number of institutions are authorised in the area due to unclear boundaries of their authority.	B1.1.1. Define scope of authority between organizations in accordance with conservation legislation and briefing.	
Issue B.1.2: There is an expectation of creating a special legislation for Khans Area.	B1.1.2. Put Bursa and Cumalıkızık Management Plan into action, use existing legislation efficiently, develop monitoring and auditing mechanisms.	heritage - research Statement - Policy
Issue B.1.2: There is an expectation of creating a special legislation for Khans Area.	B1.1.3. Enable decisions in the Bursa and Cumalıkızık Management Plan to be reflected in larger scale plans.	A policy decision on heritage is made for a situation related to heritage.
Issue B.1.6: The heritage site is on the World Heritage Tentative List and studies continue to add these areas to cultural world heritage.	B1.1.4. Ensure that ICOMOS Impact Assessment Report is taken into account for all projects involving World Heritage Candidate areas.	A situation related to heritage is controlled.
Issue B.1.5: The sites are being protected with the cooperation of central and local government using Special Provincial Administration funds.	B1.1.5. Ensure financial and technical support from ministries, municipalities and universities.	society - communication Statement - Control
Issue B.1.3: Due to lack of inspections and sanctions on practices, restoration works are done in a precipitous and inaccurate way.	B1.1.6. Work together with the Conservation Committee to ensure sanctions and reviews of incorrect applications according to conservation legislation.	
Issue B.1.4: Insufficient tendering legislation leads to the lack of qualified staff and experienced companies.	B1.1.7. Bring special criteria to the tendering legislation to ensure that conservation is carried out by expert people/organizations, creation of technical specifications.	
Issue B.1.9: Expectations of stakeholders are conflicted and the number of agreed objectives are less.	No actions	No transfer
Issue B.1.10: The sites are located in first settled neighbourhoods and local governments and community are sensitive to and willing to safeguarding.	No actions	No transfer
Issue B.1.7: Conservation plans for heritage sites are outdated, insufficient, and partial.	B1.2.1. Establish Conservation Implementation and Control Bureau (KUDEB) in all municipalities to give permission for basic repairs regarding conservation.	An intervention on heritage is taken for a situation related to heritage.

Issue assertion	Management Plan Action	Natural Language Representation
No issue assertions	B1.2.2. Encourage working in coordination with Istanbul Regional Restoration and Conservation Laboratory to enable the use of the correct technology and original materials.	No transfer
No issue assertions	B1.2.3. Forward all project applications to the Conservation Council after having been checked by the municipality for suitability with master plan.	No transfer
Issue B.1.8: Coordination and communication lack between competent institutions.	B1.2.4. Create an independent unit made up of different disciplines and organizations to enable cooperation and ensure accomplishment of the control mechanism.	
Issue B.1.7: Conservation plans for heritage sites are outdated, insufficient, and partial.	B1.2.5. Determine institutions and organizations responsible for maintenance and basic repairs, create an interactive control and communication chart, and report to BAB periodically.	A situation related to heritage is controlled.
Issue B.1.13: Bursa Site Management is established.	B1.3.1. Arrange briefing meetings regarding Site Management.	
Issue B.1.12: An organizational structure is needed to provide community engagement on neighbourhood scale, about the problems of social structure, health and culture regarding conservation notion and life quality.	B1.3.2. Develop a project to enable the efficient participation of NGOs and stakeholders in the management process.	society - communication Request - Policy
Issue B.1.11: Conservation processes are inefficient regarding operations and timing because operation of official procedures are slow.	B1.3.3. Arrange coordination meetings between stakeholders to develop an annual work program.	heritage - communication Diagnosis - Policy
Issue B.1.14: Management Plan is in the preparation process and a communication platform is created between stakeholders.	B1.3.4. Create an inspection unit regarding the Management Plan, determined by the Coordination and Auditing Board.	heritage - research Statement - Control
Issue B.1.12: There is a need for an organizational structure to provide community engagement on neighbourhood scale, about the problems of social structure, health and culture regarding conservation notion and life quality.	B1.3.5. Measure and evaluate participation to enable active, equal and transparent participation of all stakeholders and create an auditable process.	society - communication Request - Intervention
Issue B.1.14: Management Plan is in the preparation process and a communication platform is created between stakeholders.	B1.3.6. Revise the Management Plan every 5 years.	A situation related to heritage is controlled.
Issue B.2.7: Khans Area was the Ottoman's first bazaar and an international trade centre, and the Complexes were built in the reign of the first Sultans and they were used for science and religion studies.	No actions	No transfer

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.2.8: There are areas owned by public institutions such as Waqf, municipality etc. in the heritage site.	No actions	No transfer
Issue B.2.3: Archives of destroyed or lost buildings like old bazaars in Khans Area are absent.	B2.1.1. Prepare construction surveys of all streets, facades, floor coverings and electrical poles of all areas.	space - research Statement - Intervention
Issue B.2.5: The periodical maintenance and repairs of the restorations should be implemented by planning in a systematic way and basic repairs should be completed with permission.	B2.1.2. Determine the priority areas in the stages of restoration.	A suggestion on heritage is controlled. Knowledge transfer level: partial.
Issue B.2.4: Some parts of the complexes such as Turkish baths, madrasah are utilised in ways that they were not intended to be used.	B2.1.3. Determine the structures that will be restored with a balance to conservation and utilization.	A spatial situation related to heritage is controlled. Knowledge transfer level: n-partial.
Issue B.2.9: The studies started to protect and conserve the historical and cultural heritage of Sultan's Complexes including maintenance, repair, security and management.	B2.1.3. Determine the structures that will be restored with a balance to conservation and utilization.	A situation related to heritage is controlled.
Issue B.2.6: Qualified staff and experts in restoration are needed.	B2.1.4. Increase the number of experts like art historians, archaeologists, architects specializing in restoration, restorers in public sector and companies that are working in the conservation area.	An intervention is taken for a request related to heritage.
Issue B.2.6: Qualified staff and experts in restoration are needed.	B2.1.5. Require that companies doing restoration work have experienced and certified restoration staff.	
Issue B.2.1: Restorations are not made in compliance with the original or resistant to natural disasters.	B2.1.6. Reward and promote good restorations as an incentive.	A policy decision on heritage is made for a situation related to heritage.
Issue B.2.2: Some of the restored buildings lose their authenticity due to using non-original materials on their exterior facades.	B2.1.6. Reward and promote good restorations as an incentive.	A policy decision is made for a diagnosis related to heritage. Knowledge transfer level: partial.
No issue assertions	B2.1.7. Ensure that ICOMOS Impact Assessment Report is taken into account for all projects involving World Heritage Candidate areas.	No transfer
Issue B.2.11: A comprehensive archive of the history of the area is needed.	B2.2.1. Establish a heritage information system which provides access of information on property, zoning status, photos, inventory sheet, resolutions by relevant institutions, planned, continuing or completed projects.	An intervention is taken for a request related to heritage.
Issue B.2.14: The site reflects the most important architectural features of the first capital of the Ottoman Empire.	B2.2.2. Complete an inventory of intangible cultural heritage and art relating to Khans Area and the Complexes.	

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.2.15: One of the five most important mosques for the Islamic World, the Ulu Mosque, is in the core of Khans area and it is an open line-art museum.	B2.2.2. Complete an inventory of intangible cultural heritage and art relating to Khans Area and the Complexes.	An intervention on heritage is taken for a situation related to heritage.
Issue B.2.16: The first examples of angular mosques from different periods are located here and reflect the strong wakf tradition of the Ottoman Empire in Khans Area.	B2.2.2. Complete an inventory of intangible cultural heritage and art relating to Khans Area and the Complexes.	space - heritage Statement - Intervention
Issue B.2.13: The sites are the masterpieces which named the areas with their traditional identity and created symbolic value in the city.	B2.2.3. Create a project to increase the perceptibility of Tumulus (2nd century burial chamber) located in Khans Area.	space - heritage Statement - Intervention
Issue B.2.11: A comprehensive archive of the history of the area is needed.	B2.2.4. Create a digital archive in Bursa Site Management for the current restoration projects and traditional building details.	An intervention is taken for a request related to heritage.
Issue B.2.11: A comprehensive archive of the history of the area is needed.	B2.2.5. Create a Bursa Site Management library regarding the World Heritage Candidate Site.	An intervention is taken for a request related to heritage.
Issue B.2.10: Intangible cultural heritage values are in danger to be lost because they are not adequately identified.	B2.2.6. Promote the publication of research studies aimed at identifying intangible cultural assets.	heritage - research Diagnosis - Policy
Issue B.2.17: Karagöz-Hacivat and area rooted stories are kept alive and academic studies on the subject continues.	B2.2.6. Promote the publication of research studies aimed at identifying intangible cultural assets.	space - research Statement - Policy
Issue B.2.12: Local government lacks interest in traditional arts and crafts.	B2.2.7. Support the sustainability of local craftsmen with a 'White Lily' type reward, publicize their shops in tourist maps etc., and provide informative leaflets in shops.	A communicative policy decision is made for a situation related to society. Knowledge transfer level: partial.
Issue B.2.24: A majority of residential and civil architecture examples are still standing in the areas around the Complexes, and there are municipal investment programs to ensure the continuity of the restorations.	No actions	No transfer
Issue B.2.18: Common ideas, shared vision and policies for the conservation of natural and cultural heritage are needed.	B2.3.1. Revise conservation master plans to comply with the Management Plan.	A request on heritage is controlled.
Issue B.2.19: A realistic and feasible protection plan for the conservation areas is needed.	B2.3.1. Revise conservation master plans to comply with the Management Plan.	A request on heritage is controlled.
Issue B.2.21: Awareness raising activities should be held regarding the changing urban silhouette.	B2.3.2. Ensure making analyses to determine the maximum building height so as to preserve the urban landscape of the historical area.	communication - research Suggestion - Control
Issue B.2.20: A common database should be created to reach standard and compatible data.	B2.3.3. Create a GIS database to be able to map monthly, quarterly and 6-monthly work carried out by all institutions on an interactive map.	research - research Suggestion - Intervention

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.2.22: Illegal and unlicensed construction threatens the Khans Area and its surroundings.	B2.3.4. Develop landscaping projects for the green areas in the heritage sites, in particular those around the Sultan Complexes.	A heritage policy decision is made for a spatial situation. Knowledge transfer level: n-partial.
Issue B.2.23: Historical structure around the Complexes is adversely affected by heavy construction. These areas should be utilised by local inhabitants.	B2.3.5. Create projects for the protection of the land where registered buildings have been demolished.	society - heritage Suggestion - Intervention
Issue B.2.20: A common database should be created to reach standard and compatible data.	B2.3.6. Digitalize the Conservation Committee archives and update registration sheets.	research - heritage Suggestion - Intervention
Issue B.2.25: An urban design guide should be created.	B2.4.1. Create an Urban Design Guide for the Management Site.	A spatial suggestion is considered by a spatial intervention. Knowledge transfer level: partial.
Issue B.2.30: Awareness of the importance of sustainable urban design increases in local administrations.	B2.4.1. Create an Urban Design Guide for the Management Site.	
Issue B.2.27: Information and direction signage should be improved, and norms and standards should be created.	B2.4.2. Produce zoning map in urban design project and determine urban furniture, facade and height resolutions, signage and camping areas.	space - heritage Suggestion - Control
Issue B.2.28: Store signs and overwhelmed storefronts cloud the architectural identity of the area.	B2.4.2. Produce zoning map in urban design project and determine urban furniture, facade and height resolutions, signage and camping areas.	A spatial situation related to heritage is controlled. Knowledge transfer level: n-partial.
Issue B.2.26: A common language for floor coverings should be created.	B2.4.3. Ensure and audit the use of Urban Design Guide for new projects.	society - heritage Suggestion - Control
Issue B.2.29: The disorder in the Khan courtyards negatively impacts the area and creates visual pollution.	B2.4.3. Ensure and audit the use of Urban Design Guide for new projects.	A spatial situation related to heritage is controlled. Knowledge transfer level: n-partial.
Issue B.2.31: Degradation and destruction of cultural heritage is a problem.	B2.5.1. Periodically identify destroyed civil architecture examples in the area every year.	heritage - space Statement - Policy
Issue B.2.32: Unregistered historical buildings should be registered.	B2.5.2. Update registration sheets.	heritage - heritage Suggestion - Intervention
Issue B.2.31: Degradation and destruction of cultural heritage is a problem.	B2.5.3. Ensure preparing detailed drainage and waterproofing projects in restoration works.	A situation related to heritage is controlled.
Issue B.3.3: The visitor profile of Khans Area is not diverse, and shopping mall customers cannot be encouraged to go to the bazaar.	No actions	No transfer
Issue B.3.1: The area is only considered as economic resource and socio- cultural factors are pushed aside because mono-functional structure of central Bursa isolates Khans area from the city.	B3.1.1. Provide balance between cultural values and socio- economic status by ensuring the active participation of public and corporate collaboration.	A communicative policy decision is made for a spatial diagnosis. Knowledge transfer level: full.

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.3.5: Khans area starts integrating into the urban fabric and becoming a point of attraction for people to meet and gather as well as administrative and cultural buildings (city museum, theatre and cultural centres) next to commercial buildings. There are also indoor and outdoor spaces and authentic recreation venues.	B3.1.2. Organise events and affairs emphasizing neighbourhood culture in the city or in the Management Area.	heritage - space Statement - Policy
Issue B.3.5: Khans area starts integrating into the urban fabric and becoming a point of attraction for people to meet and gather as well as administrative and cultural buildings (city museum, theatre and cultural centres) next to commercial buildings. There are also indoor and outdoor spaces and authentic recreation venues.	B3.1.3. Organise shopping festivals in the Bazaar like BTSO shopping festivals, etc.	heritage - communication Statement - Policy
Issue B.3.2: Students are unable to adapt to the city centre.	B3.1.4. Encourage events with cultural and social concepts (exhibitions, fairs, street festivals, concerts, summer cinema etc.) for organisations or groups interested in fine arts (literature, painting, music, fashion etc.) and identify suitable areas for them.	A communicative policy decision is made for a spatial situation. Knowledge transfer level: partial.
Issue B.3.4: The profile of the public living around the Complexes varies due to changing socio-economic conditions.	B3.1.5. Conduct research and survey studies to determine and diversify the profile cultural heritage users (children, youth, adult, elderly), and evaluate their results.	A spatial diagnosis is controlled by a research action. Knowledge transfer level: p-full.
Issue B.3.2: Students are unable to adapt to the city centre.	B3.1.6. Organize activities for university students (music, book sales, fairs, exhibitions, etc.) and support institutions offering training programs and seminars in the area.	A communicative policy decision is made for a spatial situation. Knowledge transfer level: partial.
No issue assertions	B3.1.7. Use media web sites etc. more effectively to spread cultural activities across Bursa.	No transfer
Issue B.3.10: There is a need for sales areas around the Complexes.	No actions	No transfer
Issue B.3.12: Street vendors and informal trade should be restrained.	No actions	No transfer
Issue B.3.15: There is an increase in the number of young people showing interest in traditional arts and Sultan Complexes conserve their original religious or commercial uses like soup kitchens as a part of socio-economic life.	No actions	No transfer

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.3.14: Bazaar culture should be kept alive in Khans area where merchants take responsibility for this culture and the khans.	B3.2.1. In order to contribute to the organisation of the economic structure of the region, develop a structure together with the local community and expert organizations to increase trust of customers and to determine commercial functions appropriate for the area.	space - society Suggestion - Control
Issue B.3.8: The number of shopping malls increases rapidly in the city centre.	B3.2.2. Determine product and service standards and conduct studies for tradesmen to develop bazaar (shopkeeper) culture.	
Issue B.3.13: Quality and business ethics are being lost.	B3.2.2. Determine product and service standards and conduct studies for tradesmen to develop bazaar (shopkeeper) culture.	
Issue B.3.9: Khans Area is closed on weekends (Sundays) and after certain hours.	B3.2.3. Conduct studies to schedule the opening and closing hours of the bazaars and khans within Khans Area.	A spatial policy decision is made for a spatial situation. Knowledge transfer level: n-partial.
Issue B.3.6: Conservation-utilisation balance is problematic.	B3.2.4. Ensure sustainability by analysing past and present sectorial distribution, utilise structures based on this distribution with a balance between conservation-utilization.	heritage - research Statement - Control
Issue B.3.11: Small shopkeepers disappear gradually.	B3.2.5. Investigate the expectations of shops where disappearing crafts and products with cultural value are sold, develop recommendations.	
No issue assertions	B3.2.6. Develop and promote e-commerce to increase local production.	No transfer
Issue B.3.7: There is a need for a sustainable financial model.	B3.2.7. Offer grants and sponsorship opportunities for cultural and artistic events in the financial model to be created.	
Issue B.3.18: Social spaces are requested for the inhabitants of the Complex areas, because the current spaces are misused.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	A social policy decision is made for a social request. Knowledge transfer level: full.
Issue B.3.19: Community request places for children and young people to spend time.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	A social policy decision is made for a social request. Knowledge transfer level: full.
Issue B.3.20: Urban infrastructure needs to be improved.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	space - society Request - Policy

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.3.22: Natural urban landscape, monumental trees, topographic features and the city morphology are suitable for urban infrastructure renovation.	B3.3.1. Identify infrastructure problems, environmental pollution, lacking services (urban fixtures, health cabins, security, baby care unit, toilets, etc.) in the Management Areas and provide coordination between authorities to solve them.	space - society Statement - Policy
Issue B.3.21: Environmental pollution and visual pollution is a problem in the area.	B3.3.2. Increase environmental awareness and develop programs to prevent environmental pollution.	A communicative policy decision is made for a spatial situation. Knowledge transfer level: partial.
Issue B.3.16: Urban and social structure should provide a sufficient quality to meet the everyday needs of those living in the area.	B3.3.3. Conduct studies for the use of sustainable and ecological energy sources for transportation, heating, lighting etc. and support for R&D studies in this regard.	space - communication Suggestion - Policy
Issue B.3.17: There is a need for green spaces and landscape elements in Khans Area, because current landscaping is not appropriate to the historical fabric of the Complexes.	B3.3.4. Develop proposals for the creation of continuous and effective control mechanisms, monitor area-specific healthy urban parameters.	heritage - space Request - Control
Issue B.4.7: Shopkeepers in the bazaar are not able to keep up with the modern times and cannot protect their traditions.	No actions	No transfer
Issue B.4.9: Major companies in Bursa have low awareness in social responsibility projects.	No actions	No transfer
Issue B.4.2: The new generation has an information deficit.	B4.1.1. Make plans regarding education, determine who-what-where-how educate, research for resources and funds.	
Issue B.4.1: Conservation awareness is low and relevant staff is not competent.	B4.1.2. Increase corporate participation in conservation related events at national and international scale for the staff of conservation agencies and organizations.	communication - communication Statement - Policy
Issue B.4.5: Guides do not have adequate knowledge and accumulation of information regarding complexes.	B4.1.3. Arrange cultural tours to increase cultural awareness for those who live and work in the Management Area.	A communicative policy decision is made for a spatial situation. Knowledge transfer level: partial.
Issue B.4.5: Guides do not have adequate knowledge and accumulation of information regarding complexes.	B4.1.4. Inform and guide owners of registered buildings in the Management Area about legislations and material usage with the leadership of mukhtars.	A heritage policy decision is made for a spatial situation. Knowledge transfer level: n-partial.
Issue B.4.3: Lecturers/teachers who teach the subject of cultural heritage are not informed sufficiently.	B4.1.5. Raise awareness of primary and secondary education teachers about the protection of cultural heritage.	
Issue B.4.8: School age children needs awareness raising activities.	B4.1.5. Raise awareness of primary and secondary education teachers about the protection of cultural heritage.	
Issue B.4.4: Younger generations cannot convey the importance and value of historical heritage.	B4.1.6. Identify methods to raise awareness of pupils about cultural and historic heritage.	society - communication Suggestion - Policy

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.4.6: Image of bazaars is weakened and particularly young people lost interest in them.	B4.1.6. Identify methods to raise awareness of pupils about cultural and historic heritage.	A communicative policy decision is made for a situation related to society. Knowledge transfer level: partial.
Issue B.4.5: Guides do not have adequate knowledge and accumulation of information regarding complexes.	B4.1.7. Ensure that individuals or institutions providing guidance and consultancy have adequate knowledge on the history of nominated World Heritage areas and their relations with each other.	space - communication Statement - Control
Issue B.4.11: Social networks are employed well and cultural tours are organised.	B4.1.8. Make cultural shows more attractive on local TV and support with historic stories.	A communicative policy decision is made for a situation related to society. Knowledge transfer level: partial.
Issue B.4.10: The interest of public and local administrations in history continues to decline.	B4.1.9. Produce video, cd, cartoons, visual teaching aids, as well as the development of simple photographic and printed teaching aids which are educational regarding cultural heritage under the supervision of conservation experts, and create areas which can be used and which will attract attention, create a heritage information kit to be used in schools.	society - communication Statement - Intervention
Issue B.4.6: Image of bazaars is weakened and particularly young people lost interest in them.	B4.1.10. Identify and reward people who devoted themselves materially and spiritually for the safeguarding of tangible and intangible cultural heritage and use local media to encourage others.	A social policy decision is made for a situation related to society. Knowledge transfer level: p-full.
Issue B.5.1: Intercity traffic axes passing through the city center create negative effects and congestion.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	
Issue B.5.2: Transportation on rubber wheels having negative effects on cultural heritage is the most used transportation mean in the area.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	heritage - space Statement - Control
Issue B.5.3: Vibrations of the traffic, especially of heavy vehicles harm the complexes.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	A spatial situation is controlled by a spatial action.
Issue B.5.5: Environmental and Transportation Main Map are being developed at an urban scale of 1/100.000.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	A spatial situation is controlled by a spatial action.
Issue B.5.6: High Speed Train between Izmir and Istanbul is passing through Bursa and bonds with Istanbul are getting stronger due to both sea and railway transportation.	B5.1.1. Determine accessibility issues of Management Area in Transportation Master Plan.	space - space Diagnosis - Control
Issue B.5.5: Environmental and Transportation Main Map are being developed at an urban scale of 1/100.000.	B5.1.2. Organize workshops related to Transportation Master Plan, build a fast, easy and accessible public transport system at urban scale and help to develop it.	A spatial policy decision is made for a spatial situation. Knowledge transfer level: n-partial.

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.5.4: Public transport is insufficient in terms of accessing the Complexes from the city centre.	B5.1.3. Increase the number of public transport lines going to the city centre from intercity stations; conduct transfer and pricing studies for transfers between different types of transport by creating accessible transfer centres.	A spatial policy decision is made for a spatial situation. Knowledge transfer level: n-partial.
Issue B.5.4: Public transport is insufficient in terms of accessing the Complexes from the city centre.	B5.1.4. Develop an interactive user system related to transportation.	A spatial policy decision is made for a spatial situation. Knowledge transfer level: n-partial.
Issue B.5.4: Public transport is insufficient in terms of accessing the Complexes from the city centre.	B5.1.5. Create pre-paid and periodical private travel cards for local people and foreign tourists and integrate all these into the current transportation system.	space - society Statement - Intervention
Issue B.5.11: Accessibility is limited for everybody.	B5.2.1. Take decisions of accessibility of the Management Site by considering the user profile and take the required steps accordingly.	
Issue B.5.7: There is no proper pedestrian route between Complexes Area and Khans Area and pedestrian ways are not disabled-friendly.	B5.2.2. Develop the pedestrian, vehicle, transportation route and signalization systems according to the universal design and healthy urban principles by considering the needs of all different sections of society.	An intervention on heritage is taken for a situation related to heritage.
Issue B.5.10: There are not enough informative and direction signs.	B5.2.3. Arrange the signage for pedestrians and vehicles in the Urban Design Guide of Bursa Historical City Centre.	
Issue B.5.12: Complexes as the focal points in the city are on different axes. There is a need for high speed transportation means due to the increasing traffic and arrangements for pedestrian routes.	B5.2.4. Define the routes connecting Khans Area and Complexes; by carrying out surveys related to alternative public transport systems (cable cars, chair lift and/or nostalgic train/tram) and making related regulations.	heritage - research Request - Intervention
Issue B.5.8: Cultural tours and tourism activities increase the need of pedestrian accessibility.	B5.2.5. Connect the Complex areas with pedestrian and green axes; utilise vehicles specially designed for the Management Site and arrange ring services on the defined routes.	heritage - society Request - Intervention
Issue B.5.9: Current sidewalks are not standard and there are no paths for bicycles.	B5.2.6. Arrange pedestrian and cycling routes for the Management Site, which is integrated with other systems.	
Issue B.5.16: Low number of parking spots are available for Tourist buses.	B5.3.1. Conduct surveys about parking needs in the Management Site by considering the tourism potential.	society - research Statement - Control
Issue B.5.15: There is a negative effect of user profile in Khans Area with the changing socio-economic needs and the increase in transportation and parking facilities.	B5.3.2. Identify the current capacity of the car parks in and around the Management Site.	space - space Request - Policy

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.5.15: There is a negative effect of user profile in Khans Area with the changing socio-economic needs and the increase in transportation and parking facilities.	B5.3.3. Identify strategies and conduct surveys for developing closed and open car parks in available areas starting from the underground ones.	A spatial request is controlled by a research action. Knowledge transfer level: n-partial.
No issue assertions	B5.3.4. Prevent the conversion of registered but demolished building areas into car parks.	No transfer
Issue B.5.13: The traffic of Muradiye Complex is heavy especially on Tuesdays due to the open bazaar.	B5.3.5. Conduct transportation analysis directed at the Management Site and re-evaluate the road levels and opening-closing times.	
Issue B.5.14: There are issues related to loading, unloading and service needs in Khans Area.	B5.3.6. Define get-on and get-off points for the tourist buses and project them.	
Issue B.5.16: Low number of parking spots are available for Tourist buses.	B5.3.7. Solve the parking issue and control both the car parks and places used as car parks in the Management Area.	
Issue B.6.3: The number of people visiting for cultural tourism is small because there is no definition of the targeted tourists.	B6.1.1. Analyse the current facilities in the Management Plan area taking into account its touristic potential and the various needs of the area (accommodation, eating- drinking, WC, baby care, social, cultural).	A diagnosis related to society is controlled. Knowledge transfer level: p-full.
Issue B.6.7: The Tourism Master Plan is being prepared and local and foreign tourism demand is increasing with alternative tourisms in the city like congress, thermal, nature, winter tourism etc.	B6.1.1. Analyse the current facilities in the Management Plan area taking into account its touristic potential and the various needs of the area (accommodation, eating- drinking, WC, baby care, social, cultural).	society - society Statement - Control
Issue B.6.1: A tourism master plan is needed.	B6.1.2. Analyse and develop the Tourism Master Plan, currently in progress.	A request on heritage is controlled.
Issue B.6.2: Cultural heritage creates unplanned effect on the development of culture tourism.	B6.1.3. Create thematic cultural trip routes, prepare cultural maps, determine main themes of routes.	A situation related to heritage is controlled.
Issue B.6.5: Accommodation facilities should be provided for the short periods of stay especially in the surrounding areas of Yildirim and Yesil Complexes.	B6.1.4. Support qualified boutique hotels and family hostels, determine organisations and institutes that will provide financial support.	space - communication Suggestion - Control
Issue B.6.4: A trip route should be defined for tourists coming to the region.	B6.1.5. Evaluate visitor satisfaction.	
Issue B.6.6: Touristic busses can wait for a restricted time frame because their number is few and parking is a problem.	B6.1.6. Develop visitor plans for the nominated World Heritage sites and identify stakeholders.	society - heritage Suggestion - Policy
Issue B.6.8: Publicity and promotion should be provided on internet.	B6.2.1. Prepare promotion material (written and visual) to be published in national and international media to reach a greater audience for introduction of the Management Area.	communication - communication Suggestion - Intervention

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.6.11: Understandable and readily available written and visual documents are requested to help visitors in perceiving the heritage area.	B6.2.1. Prepare promotion material (written and visual) to be published in national and international media to reach a greater audience for introduction of the Management Area.	heritage - communication Request - Intervention
Issue B.6.15: Tourism fair increased the recognition of the area and disseminated knowledge about the silk road.	B6.2.2. Improve relations with national and international organisations, promote and represent Bursa, create medium scale projects, ensure maximum use of national and international funds.	
Issue B.6.12: Local products need to be marketed and promoted.	B6.2.3. Declare 2014 as year of Bursa by UNESCO for the revival of endangered crafts and increase awareness, organise competitions for the presentation of promotional objects and local products.	society - communication Request - Policy
Issue B.6.16: Branding studies and local tourism initiatives increase in the Khans area.	B6.2.3. Declare 2014 as year of Bursa by UNESCO for the revival of endangered crafts and increase awareness, organise competitions for the presentation of promotional objects and local products.	A communicative policy decision is made for a situation related to society. Knowledge transfer level: partial.
Issue B.6.10: Souvenirs that will promote the area and Bursa's values should be designed.	B6.2.4. Disseminate activities for the promotion of intangible cultural heritage.	
Issue B.6.14: Intangible cultural heritage is being forgotten.	B6.2.4. Disseminate activities for the promotion of intangible cultural heritage.	
Issue B.6.9: Promotion leaflets for the Complexes are requested.	B6.2.5. Prepare information signs, sheets, brochures, pamphlets to promote the area and its key points through collaboration with experts in the field, determine slogans.	communication - space Request - Control
Issue B.6.13: Information and guidance signs should be provided.	B6.2.5. Prepare information signs, sheets, brochures, pamphlets to promote the area and its key points through collaboration with experts in the field, determine slogans.	
Issue B.6.17: Technology and internet is being used increasingly.	B6.2.6. Develop tourist guidance systems following technological advances.	
Issue B.6.18: The number of tourism offices is not enough and their locations are inaccessible.	B6.3.1. Constitute an effective system of fully equipped tourism offices and improve the quality of guidance services.	heritage - society Statement - Policy
Issue B.6.19: Information offices and guides are requested to discover the locations of services in the complexes area.	B6.3.1. Constitute an effective system of fully equipped tourism offices and improve the quality of guidance services.	A social policy decision is made for a social request. Knowledge transfer level: full.
Issue B.6.20: The number of cultural tours is increasing due to the location of Bursa as on tourist trip routes and as a meeting point for them.	B6.3.2. Enable showing short films depicting the importance and history of the nominated World Heritage sites on public transport, in museums, and in public areas.	communication - heritage Diagnosis - Policy

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.7.5: Educational and informational programs are created in cooperation with BEBKA and the governor, and infrastructure and urban transformation projects being considered, and fire department being strengthened with new premises.	No actions	No transfer
Issue B.7.2: Precautions taken against disasters such as fire and earthquake are inadequate.	B7.1.1. Identify risks and dangers regarding disaster management, detect insufficiencies, and prepare analysis maps.	heritage - research Statement - Control
Issue B.7.1: Disaster management preparations should be complete against disasters such as earthquake, fire etc.	B7.1.2. Prepare emergency action plans.	A policy decision is made for a suggestion on heritage.
Issue B.7.3: The area is highly sensitive for nature and human oriented risks due to its location on 1st degree earthquake belt.	B7.1.2. Prepare emergency action plans.	A policy decision is made for a diagnosis related to heritage. Knowledge transfer level: partial.
Issue B.7.4: Accessibility for intervention should be provided in case of disasters.	B7.1.3. Create a transportation plan to ease access in case of an emergency, and identify alternative routes.	heritage - heritage Suggestion - Intervention
Issue B.7.4: Accessibility for intervention should be provided in case of disasters.	B7.1.4. Develop strategies to access local residents of inaccessible areas by vehicles such as Fire Cabinet Project, Placement of Hydrants, etc., and acquire small vehicles.	heritage - society Suggestion - Intervention
Issue B.7.10: There are damp and drainage issues in historical buildings.	No actions	No transfer
Issue B.7.11: Infrastructure is inadequate for flooding in Khans Area during heavy rains in the winter.	No actions	No transfer
Issue B.7.9: Some plans may cause danger in terms of conservation and construction.	B7.2.1. Ensure the provision of interdisciplinary emergency and evacuation plans for historical buildings.	A suggestion on heritage is controlled. Knowledge transfer level: partial.
Issue B.7.8: Buildings are becoming dilapidated and posing danger for various reasons.	B7.2.2. Examine intervention techniques used internationally with historical monuments, determine forms of intervention.	
No issue assertions	B7.2.3. Arrange all forms of disaster awareness training related to earthquakes and disaster prevention.	No transfer
No issue assertions	B7.2.4. Ensure effective controls to keep the process efficient.	No transfer
Issue B.7.7: There is a risk of loss of cultural assets and the historical texture of the areas surrounding Complexes due to fire and earthquakes.	B7.2.5. Prepare risk maps for infrastructure.	An intervention action is taken on a diagnosis related to heritage. Knowledge transfer level: p-full.

Issue assertion	Management Plan Action	Natural Language Representation
Issue B.7.12: Visible infrastructures like power and phone lines create visual pollution.	B7.2.6. Develop projects to identify risks of and prevent drawbacks of intense electromagnetic pollution from nearby base stations, transformers, high voltage lines.	A heritage policy decision is made for a spatial situation. Knowledge transfer level: n-partial.
Issue B.7.13: Determining Criteria for Risk Management project is started as part of the historical and cultural heritage conservation efforts.	B7.2.6. Develop projects to identify risks of and prevent drawbacks of intense electromagnetic pollution from nearby base stations, transformers, high voltage lines.	A policy decision on heritage is made for a situation related to heritage.
Issue B.7.6: Structural soundness of cultural assets against earthquakes should be controlled.	B7.2.7. Conduct material analysis on historical buildings to find out the intensity of wooden structures as a part of fire risk assessment.	heritage - research Suggestion - Control
Issue B.7.14: Security is a problem.	B7.3.1. Identify gaps in the current system to strengthen the accountability of public security services.	
Issue B.7.14: Security is a problem.	B7.3.2. Develop projects for security systems such as BTCH, CCTV systems.	
Issue B.7.15: Establishing conservation safety in the area is not successful.	B7.3.3. Support with the expert personnel on security infrastructure in case of disaster or emergency.	heritage - communication Statement - Policy
Issue B.7.15: Establishing conservation safety in the area is not successful.	B7.3.4. Inspect licenses of businesses for risk of fire within the Management Area.	A situation related to heritage is controlled.
Issue C.1.8: The site has priority to benefit from contribution funds.	No actions	No transfer
Issue C.1.5: The issue of the legal entity of villages causes problems due to the changes in municipality law.	C1.1.1. Identify the authority limits among institutions by reviewing the conservation legislation and make informative studies.	
Issue C.1.2: There are illegal housings around the village and farming areas are being plundered by foreigners.	C1.1.2. Make Bursa and Cumalıkızık Management Plan more functional, benefit from the current legislation authorities, develop monitoring and control mechanism.	space - research Statement - Policy
Issue C.1.3: The limitations of conservation law no 2863 diminishes life quality.	C1.1.3. Identify deficiencies and issues in the monitoring system and identify applications in order to fill the gap in the legislation.	heritage - research Statement - Policy
Issue C.1.1: Conservation Zoning Plan is not up to date, and it takes long to update due to the existence of gap in the legislation.	C1.1.4. Create a zoning plan aiming conservation, put it into practice immediately, and coordinate.	An intervention action is taken on a diagnosis related to heritage. Knowledge transfer level: p-full.
Issue C.1.4: Registered buildings are being restored with non-authentic materials. This creates an example case for the villagers for conversion of such buildings into restaurants by unauthorized people.	C1.1.5. Prepare protocol agreements in order to generate a committee of experts from different institutions and disciplines for the coordination of institutions in the control and application of restoration processes.	society - heritage Statement - Intervention

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.1.6: The village resides in the conservation area and the protection status is not clear.	C1.1.6. Create projects and applications to keep national and international preservation criteria and in accordance with the contemporary conservation approaches.	An intervention on heritage is taken for a situation related to heritage.
Issue C.1.7: The site is in the World Heritage Nominee list and studies are being done in order to get the nomination.	C1.1.6. Create projects and applications to keep national and international preservation criteria and in accordance with the contemporary conservation approaches.	An intervention on heritage is taken for a situation related to heritage.
No issue assertions	C1.2.1. Develop a model of funding proposals for preservation applications, generate financial and technical support from ministries, municipalities and universities.	No transfer
Issue C.1.10: Multiple authorities cause coordination problems.	C1.2.2. Establish Conservation Implementation and Control Bureau (KUDEB) in all municipalities to give permission for basic repairs regarding conservation.	An intervention action is taken on a diagnosis related to heritage. Knowledge transfer level: p-full.
No issue assertions	C1.2.3. Encourage working in coordination with Istanbul Regional Restoration and Conservation Laboratory to enable the use of the correct technology and original materials.	No transfer
Issue C.1.10: Multiple authorities cause coordination problems.	C1.2.4. Search solutions via Ministries by identifying the issues experienced at conflicting applications using legal control and legal consultancy.	heritage - communication Diagnosis - Policy
Issue C.1.12: Village is incorporated with several programs, a communication platform is being generated among the shareholders to coordinate institutions and support collaboration in the works.	C1.2.5. Carry out studies in order to develop farm products and cooperative concept with active participation of the villagers and institutional collaboration.	communication - communication Statement - Policy
Issue C.1.9: Coordination among projects at the village should be set up via participatory mechanism.	C1.2.6. Identify the needs in order to balance conservation-utilisation and consider life quality while conserving and finding solutions.	A policy decision is made for a suggestion on heritage.
Issue C.1.11: The village is preserved because locals possess the village and have a susceptibility to preservation.	C1.2.6. Identify the needs in order to balance conservation-utilisation and consider life quality while conserving and finding solutions.	society - heritage Diagnosis - Policy
Issue C.2.2: Restoration projects are not performed in accordance with international principles and standards. Authentic materials are not used in the applications and originality is lost due to incorrect interventions.	C2.1.1. Search national and international sources related to the procurement of authentic materials that will be used in the area during the restoration practices.	

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.2.3: Originality in buildings with a cultural value is lost due to the rapid restorations and tendency process although being constructed according to the original.	C2.1.2. Continue to the works in the conservation-utilisation balance and identify buildings primarily need restoration.	A policy decision is made for a diagnosis related to heritage. Knowledge transfer level: partial.
Issue C.2.1: Controls should be carried out during the restoration applications.	C2.1.3. Ensure that ICOMOS Effect Assessment Report is taken into account for all the projects in and around Cumalıkızık Management Site.	A suggestion on heritage is controlled. Knowledge transfer level: partial.
Issue C.2.5: There is a need for qualified staff and experts in restoration.	C2.1.4. Increase the number of experts like art historians, archaeologists, architects specializing in restoration, restorers in public sector and companies that are working in the conservation area.	An intervention is taken for a request related to heritage.
Issue C.2.4: The conservation and development decisions are not being applied correctly.	C2.1.5. Ensure that companies doing restoration work have experienced and certified restoration staff, generate a group of young locals to do some maintenance in conventional ways, develop a communication system that can provide coordination.	heritage - society Statement - Control
Issue C.2.6: Some of the structures built in and around the village are not suitable for historical pattern and architecture.	C2.1.6. Introduce and reward the successful restoration applications in order to support good practices.	heritage - communication Statement - Policy
Issue C.2.7: Survey and restoration projects are started.	C2.1.6. Introduce and reward the successful restoration applications in order to support good practices.	research - communication Statement - Policy
Issue C.2.9: Cultural areas are seen as commercial goods and transformation of the village into a film set under the effect of popular culture damages the environment and the historical pattern.	No actions	No transfer
Issue C.2.12: A detailed archaeological research has not been done yet. Studies should be done at a scale of research and excavations.	C2.2.1. Establish a heritage information system for the access of information on property, zoning status, photos, inventory sheets, resolutions by relevant institutions on planned, continuing or completed projects.	research - heritage Suggestion - Intervention
No issue assertions	C2.2.2. Rearrange the village museum according to contemporary museum standards for the display of cultural and archaeological assets.	No transfer
Issue C.2.15: Traditions are partially going on, the area has a story of its own, academic studies about the village are carried out.	C2.2.3. Complete the inventory of village cultural assets (inventory sheets, current projects, written literature, verbal history, conservation history, photo archive, etc.) and collect them in the village library which is connected to the museum.	space - heritage Statement - Intervention

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.2.8: Intangible cultural heritage disappears.	C2.2.4. Promote the publication of research studies aimed at identifying intangible cultural assets (For example, local food culture, village plays and research of village plays, research in to handicrafts specific to the village.	heritage - research Statement - Policy
Issue C.2.14: Village has a natural pattern and natural beauties in addition to its history, cultural structure and pre- Ottoman history.	C2.2.4. Promotion of the publication of research studies aimed at identifying intangible cultural assets (For example, local food culture, village plays and research of village plays, research in to handicrafts specific to the village.	heritage - research Statement - Policy
Issue C.2.13: There are illegal excavations.	C2.2.5. Examine the cultural layers (remains of a Byzantine Monastery) in Cumalıkızık and surroundings.	
Issue C.2.11: The village specific events cannot be practiced.	C2.2.6. Support material and moral incentives for public administrators to keep local cultural and folkloric traditions alive (holding this rituals like village weddings, henna ceremonies etc. at regular intervals).	
Issue C.2.10: Knowledge about the village should be transferred to young people and the next generations.	C2.2.7. Create programs (annual festivals etc.) that express the connection that Cumalıkızık has with the other Kizik villages and its Oguz-Yoruk identities.	society - communication Suggestion - Intervention
Issue C.2.18: Buffer zone area around the village is not controlled and constructions cause the destruction of agricultural lands.	C2.3.1. Revise Conservation Master Plan in a transparent way to include not just the village but the surrounding areas with an aim to ensuring agricultural sustainability.	space - heritage Diagnosis - Control
Issue C.2.20: The entire village is a civil architecture example of rural settlements.	C2.3.2. Establish a GIS database to be able to map monthly, quarterly and six-monthly work carried out in Cumalıkızık by all institutions on an interactive map.	
Issue C.2.17: Development plan for protection is not up to date.	C2.3.3. Create a unit in Cumalıkızık to receive feedback about the Conservation Master Plan, respond to demands from the village and settle disputes.	space - heritage Statement - Intervention
Issue C.2.16: Planning studies should be done for an integrating protection plan and to keep balance of conservation and utilization.	C2.3.4. Create an urban design guide in harmony with the Conservation Master Plan and the village identity and its surroundings.	heritage - heritage Suggestion - Intervention
Issue C.2.19: Design standards should be identified in harmony with the historical texture.	C2.3.4. Create an urban design guide in harmony with the Conservation Master Plan and the village identity and its surroundings.	heritage - heritage Suggestion - Intervention
Issue C.2.23: Authentic architectural features exist along with living people.	No actions	No transfer

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.2.21: A structure with a new building permission that is built with concrete will set a precedent for the villagers.	C2.4.1. Determine examples of civil architecture that are uninhabited or have changed ownership.	
Issue C.2.22: Non-original applications are made to the buildings including those purchased by the state.	C2.4.2. Update and approve registration sheets.	
Issue C.3.1: Agricultural economy degrades because the village has gained touristic value.	C3.1.1. Support the development of agriculture and cooperatives, arrange organizations to share knowledge and experience with other provinces.	A communicative policy decision is made for a diagnosis related to society. Knowledge transfer level: p-full.
Issue C.3.6: Natural soil and flora and a variety of agricultural products are present in the village. Production continues albeit scant.	C3.1.2. Define organic and good agricultural practices, increase efficiency, search financial support for the implementation of drip feed irrigation systems.	
Issue C.3.5: The village is in the middle of forest and agricultural lands and this position is important for social and economic sustainability, production, and tourism.	C3.1.3. Determine the product varieties to create a brand, develop ideas for the branding of traditional village products (chestnut, strawberry, raspberry, blackberry, cherry etc.).	
Issue C.3.4: Agricultural lands are at risk due to the migrating population. Women and children are unable to work alone in the fields.	C3.1.4. Create a facility and organization for the processing and conservation of the agricultural products with participation of the local community.	society - communication Diagnosis - Intervention
Issue C.3.3: Hygienic places should be provided where village women can produce products together.	C3.1.5. Create monopoly marketing for auditing the hygiene and quality of Cumalıkızık branded products and investigate funding and sponsorship opportunities.	society - research Suggestion - Intervention
Issue C.3.2: Agricultural products are being plundered by foreigners and development is allowed on agricultural lands.	C3.1.6. Develop policies to encourage agricultural tourism, create activities related to agriculture that visitors can take part in.	space - heritage Statement - Intervention
No issue assertions	C3.1.7. Define areas within the village and Khans area for the sale of agricultural produce, raise awareness about the health benefits of the products.	No transfer
Issue C.3.12: There is an increased interest in technological advances in agriculture and organic farming, and efforts are made for drip feed irrigation systems.	No actions	No transfer
Issue C.3.7: Village economy is in a bad state. A realistic economic plan should be prepared to revive the economy.	C3.2.1. Collaborate with locals and expert organizations to revive the economy of the area.	
Issue C.3.11: Cultural areas are considered as commercial areas and taxes are charged to producers.	C3.2.2. Prioritise special incentives for the area to revive the socio-economic state (pension, health insurance, agriculture-tourism incentives etc.).	A heritage policy decision is made for a spatial situation. Knowledge transfer level: n-partial.

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.3.10: Sale areas should be organized and continuity of product standards and pricing should be managed.	C3.2.3. Reorganize bazaar area.	A spatial policy decision is made for a spatial suggestion.
Issue C.3.13: Efforts are made for chestnut growing and marketing village products started with the formation of a cooperative, and international and national partnerships are increased.	C3.2.4. Examine the products sold in the village in terms of their authenticity.	
Issue C.3.9: Commercial areas should be organised and planned in the area, and public funds should be spent properly.	C3.2.5. Sustain and develop the flow of income, research for incentives and sponsorship.	space - research Suggestion - Policy
Issue C.3.8: A sustainable finance model is needed.	C3.2.6. Identify the indicators to control of the operation of the financial model.	
Issue C.3.17: A plan for the balance of conservation and utilization should be prepared.	C3.3.1. Investigate the compliance of environmental management, social and technical infrastructure services and current practices, work towards inter-agency cooperation and modernization of the system.	
Issue C.3.18: There are problems with comfort levels in the houses.	C3.3.2. Establish balance between conservation and the necessities of everyday life, develop proposals ensuring the adequacy of inadequate resources (like health unit).	space - heritage Statement - Intervention
Issue C.3.16: Restrictions on heating, communication, natural gas, internet etc. decrease the quality of life.	C3.3.3. Develop ideas for the use of renewable energy sources.	
Issue C.3.15: Spatial structure cannot entirely meet the expectations of visitors and users.	C3.3.4. Ensure the use of new technology for infrastructure needs in the area (for example the form of the road).	space - space Suggestion - Control
Issue C.3.14: Environmental pollution, the noise and visual pollution are created by the village bazaar.	C3.3.5. Develop environmental awareness, create programs to prevent environmental pollution.	
Issue C.3.19: Negative social and physical effects such as abandoned buildings result from migration.	C3.4.1. Determine reasons for migration with surveys and focus group studies, create preventive strategies and solutions.	
Issue C.3.21: There is a danger of loss of village culture because of the degradation of traditional village life.	C3.4.2. Ensure that all Cumalıkızık villagers, within or outside of the village, have a sense of belonging and contribute to all events related to the village.	
Issue C.3.22: Newcomers are unable to fit in with locals.	C3.4.3. Research on how to prevent functional changes due to cultural and commercial pressure, find alternative solutions.	
Issue C.3.20: Population becomes one- dimensional because young population leaves, only elderly and children stays.	C3.4.4. Prevent migration from the village, perform an income analysis on the village household income and create projects for this (like old temettuat books).	society - research Diagnosis - Control

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.3.23: The increasing illegal development around the village causes problems for risk and disaster planning.	C3.5.1. Re-examine high scale plans particularly for the buffer zones, allow for rearrangements.	heritage - space Diagnosis - Policy
Issue C.3.25: Natural resources are being damaged.	C3.5.2. Develop projects for the protection of natural resources and agricultural areas.	
Issue C.3.24: Environmental pollution is a problem.	C3.5.3. Develop educational programs with the local public regarding environmental pollution and prevention.	
No issue assertions	C3.5.4. Prepare recycling projects for recyclable and special waste.	No transfer
Issue C.4.4: Political pressure creates a feeling of unease due to the possibility of political changes in the management plan.	No actions	No transfer
Issue C.4.8: Young people in the village are unaware of the history of the village.	C4.1.1. Examine and determine topics for training programmes (preservation - social and economic values - quality of life - tourism, etc.) about the village history, organise them in cooperation with universities, local governments, education institutions, and civil society institutions.	society - communication Statement - Control
Issue C.4.10: Awareness studies are being organised in the village due to increasing awareness of NGOs.	C4.1.1. Examine and determine topics for training programmes (preservation - social and economic values - quality of life - tourism, etc.) about the village history, organise them in cooperation with universities, local governments, education institutions, and civil society institutions.	communication - communication Diagnosis - Control
Issue C.4.6: Inhabitants are open to innovation and education.	C4.1.2. Prepare awareness programs regarding tangible and intangible cultural assets for public workers, managers, teachers and students.	communication - communication Statement - Intervention
Issue C.4.9: The public has wrong ideas and opinions about cultural heritage and conservation.	C4.1.2. Prepare awareness programs regarding tangible and intangible cultural assets for public workers, managers, teachers and students.	heritage - communication Statement - Intervention
Issue C.4.1: Traditional village life is starting to degrade due to unplanned development of socio-economic structure and the effect of popular culture.	C4.1.3. Provide training in marketing techniques and about consumer rights to producers and villagers who sell the products.	A communicative policy decision is made for a spatial diagnosis. Knowledge transfer level: full.
Issue C.4.1: Traditional village life is starting to degrade due to unplanned development of socio-economic structure and the effect of popular culture.	C4.1.4. Create programs to teach modern agricultural methods within the village, provide training in cooperatives.	space - communication Diagnosis - Intervention
Issue C.4.2: Woodworking has been forgotten.	C4.1.5. Create training and certificate programs in restoration, maintenance and repair for the villagers.	

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.4.3: Qualified restorers and experts are needed in restorations.	C4.1.5. Create training and certificate programs in restoration, maintenance and repair for the villagers.	heritage - communication Request - Intervention
No issue assertions	C4.1.6. Provide information and referrals for the owners of registered buildings in the Management Area on legislations regarding conservation etc.	No transfer
Issue C.4.6: Inhabitants are open to innovation and education.	C4.1.7. Create training programs for villagers to become tour guides.	communication - communication Statement - Intervention
Issue C.4.7: Intangible cultural heritage values are forgotten.	C4.1.8. Ensure sharing correct information on tangible and intangible values on social media and internet.	A situation related to heritage is controlled.
Issue C.4.11: Village inhabitants care about the history and natural life and aware of the culture of belonging in Cumalıkızık.	C4.1.9. Enable village inhabitants to share the knowledge and experience of older generations.	A social policy decision is made for a situation related to society. Knowledge transfer level: p-full.
No issue assertions	C4.1.10. Organise awareness activities to control illegal construction within the village.	No transfer
Issue C.4.5: Local administrators become more interested and sensitive to local culture.	C4.1.11. Enable coverage of Cumalıkızık in national media broadcasts or programs related to culture.	A communicative policy decision is made for a situation related to society. Knowledge transfer level: partial.
Issue C.5.6: Village is close to the city.	C5.1.1. Determine main accessibility routes for Cumalıkızık Management Area.	
Issue C.5.4: Even though there is a motorway access, rural settlement identity is kept.	C5.1.2. Organise workshops related to the Transportation Master plan.	A spatial policy decision is made for a spatial diagnosis. Knowledge transfer level: full.
Issue C.5.1: Transportation facilities are limited in the city.	C5.1.3. Increase the number of public transport lines from inter- city travel to city centre and from there to Cumalıkızık village, work on creating accessible transfer centres and charges.	A spatial policy decision is made for a spatial situation. Knowledge transfer level: n-partial.
Issue C.5.1: Transportation facilities are limited in the city.	C5.1.4. Integrate Cumalıkızık village into the interactive transportation system.	
Issue C.5.1: Transportation facilities are limited in the city.	C5.1.5. Create special prepaid travel cards aimed at local and foreign tourists and integrate them in to the current transport system.	space - society Statement - Intervention
Issue C.5.3: Transportation links between nearby Kizik villages are limited.	C5.1.6. Create transport links to the other Kizik villages while maintaining the texture of the area, and integrate them with the transportation master plan and conservation plan.	space - heritage Statement - Intervention
Issue C.5.5: There is an increased interest in nature and hiking.	C5.1.7. Increase the number of routes with rubber tyres.	
No issue assertions	C5.1.8. Create a connection to the rail system on the Ankara road.	No transfer
Issue C.5.2: Cumalıkızık sign is not being noticed on Ankara Road.	C5.1.9. Rearrange the signage on the Ankara road.	

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.5.8: There is a need for accessibility for everyone.	C5.2.1. Increase the public transport routes that can be used by everyone.	A policy action on heritage is made for a spatial request.
Issue C.5.7: There is accessibility and traffic problem in the village.	C5.2.2. Develop pedestrian, vehicle, transportation route and signalling systems while keeping in mind all the needs of society and stick to universal design criteria.	space - heritage Statement - Intervention
Issue C.5.9: Transportation should be provided to public areas in the village.	C5.2.3. Provide ring services with specially designed public vehicles in the village.	space - society Suggestion - Policy
Issue C.5.8: There is a need for accessibility for everyone.	C5.2.4. Create proposals for walking routes in the village and natural areas.	An intervention on heritage is taken for a spatial request.
Issue C.5.10: Parking is a problem within the village.	C5.2.5. Determine appropriate parking areas outside of the area, block vehicle entrance by visitors to the village.	A spatial situation is controlled by a spatial action.
Issue C.6.3: Tourist density is high due to the uncalculated and unplanned capacity of the village.	No actions	No transfer
Issue C.6.4: Village is unable to manage tourist pressure.	No actions	No transfer
Issue C.6.1: A local tourism plan integrated to the Bursa Tourism Master Plan is needed.	C6.1.1. Create a protection and development vision supported by alternative tourism opportunities, ensure integration into higher scale plans.	society - communication Request - Intervention
Issue C.6.2: There is a need for a visitor management plan.	C6.1.2. Collect data for the preparation of the visitor management plan and to calculate the capacity of the area.	
Issue C.6.8: There is an increasing interest in cultural and natural tourism as alternative tourism.	C6.1.3. Increase variety of events specific to the area, enable the development of tourism.	A policy decision on heritage is made for a situation related to heritage.
Issue C.6.7: Development trend in alternative tourism is low.	C6.1.4. Create a themed trip route for the area and near surroundings, determine focus points of the route.	A situation related to heritage is controlled.
Issue C.6.5: Accommodation is a problem for visiting tourists.	C6.1.5. Determine ways of meeting the need for accommodation and determine standards, increase bed capacity in accommodation facilities, open up the original structures to accommodation (boarding), provide accommodation in near vicinity.	society - communication Statement - Control
Issue C.6.6: There is a need for standards specific to the area.	C6.1.6. Support transportation with a ring service to the other management areas and city centre due to the relationship the village has with these areas.	A communicative policy is made for a spatial request. Knowledge transfer level: full.
Issue C.6.11: Tourism focus is only on the village square.	No actions	No transfer
Issue C.6.12: Village is gradually becoming a film platform due to the effect of popular culture.	No actions	No transfer

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.6.16: Local media is being used for promotion of the village.	No actions	No transfer
Issue C.6.9: Cumalıkızık is not promoted well.	C6.2.1. Determine effective promotional strategies, support the branding process and ensure its continuity.	
Issue C.6.13: Cumalıkızık is known throughout Turkey.	C6.2.2. Prepare a national and international documentary on the historical and cultural structure of the village, create joint projects to strengthen international relations.	
Issue C.6.14: Cumalıkızık is on the historical Silk Road and studies are started to promote it.	C6.2.3. Invite national and international travel writers to the area to increase awareness of the area.	heritage - communication Statement - Policy
Issue C.6.10: There is not any branded products.	C6.2.4. Bring local products like chestnut to a certain quality and order, enable the sale and promotion of them.	
Issue C.6.15: Festivals where values specific to the area are promoted are being organised.	C6.2.5. Spread efforts to promote the intangible cultural assets of the village.	communication - heritage Statement - Policy
Issue C.6.15: Festivals where values specific to the area are promoted are being organised.	C6.2.6. Organise the traditional raspberry festival in the village to be held on an international level.	communication - communication Statement - Policy
Issue C.6.20: Number of Cumalıkızık volunteers are increasing both from local and abroad.	C6.3.1. Support promotion activities to create training programmes (i.e. language courses, informative programmes about the site and its authenticity) for villagers and increase general awareness about the site with tourist information offices in the village.	society - communication Statement - Intervention
Issue C.6.19: There should be more tourism offices.	C6.3.2. Establish a permanent consultancy office in the village.	heritage - communication Suggestion - Intervention
Issue C.6.17: There is a need for guides to promote the village.	C6.3.3. Prepare English and Turkish information signs for the location and history of the village, to be placed in various points of the village.	
Issue C.6.17: There is a need for guides to promote the village.	C6.3.4. Prepare English and Turkish information signs for the monumental and civil architecture structures in the village.	
Issue C.6.18: More promotion events should be organised.	C6.3.5. Create visitor centres in the social areas of the village and its surroundings, showing of a short film describing the establishment of the Ottoman empire and the relationship with the other management areas.	A communicative suggestion is considered by a spatial intervention. Knowledge transfer level: p-full.
Issue C.7.1: Natural disasters are damaging the buildings because restorations are not resistant for disasters.	C7.1.1. Determine risks and dangers regarding the village and its surroundings and natural assets, determine inadequacies and prepare analysis maps.	A diagnosis related to heritage is controlled by a research action. Knowledge transfer level: partial.

Issue assertion	Management Plan Action	Natural Language Representation
Issue C.7.2: Life safety against landslides is not provided, particularly in the touristic route of Cin Gap area.	C7.1.2. Prepare area specific emergency action plans, evaluate Cumalıkızık village by JICA and Provincial Directorate of Disasters and Emergencies.	society - heritage Statement - Intervention
Issue C.7.3: Emergency and disaster response is difficult due to narrow streets of the village and limited accessibility.	C7.1.3. Prepare emergency exits and evacuation plans for the required buildings in the village.	An intervention action is taken on a diagnosis related to heritage. Knowledge transfer level: p-full.
Issue C.7.4: Precautions should be taken as response to fire risk.	C7.1.4. Research international response techniques when dealing with historical artefacts, define emergency actions.	
Issue C.7.4: Precautions should be taken as response to fire risk.	C7.1.5. Set up a team of emergency responders made up of village inhabitants and provide training.	heritage - communication Suggestion - Intervention
Issue C.7.3: Emergency and disaster response is difficult due to narrow streets of the village and limited accessibility.	C7.1.6. Expand plans for residents who live in areas inaccessible by vehicles (Fire Cabinet Project, Placement of Hydrants, etc.) and acquire small vehicles.	An intervention action is taken on a diagnosis related to heritage. Knowledge transfer level: p-full.
No issue assertions	C7.1.7. Prepare a disaster information guide (where to find fresh water after a disaster etc.).	No transfer
Issue C.7.5: Infrastructure should be improved.	C7.1.8. Determine infrastructure risks in Cumalıkızık village.	space - heritage Suggestion - Control
Issue C.7.4: Precautions should be taken as response to fire risk.	C7.1.9. Inspect business licenses in the context of fire risks of businesses within the Management Area.	A suggestion on heritage is controlled. Knowledge transfer level: partial.
Issue C.7.6: Security should be improved.	C7.2.1. Develop the security infrastructure in the village, support with expert workers.	
Issue C.7.8: Tourists are entering village homes without permission.	C7.2.1. Develop the security infrastructure in the village, support with expert workers.	A communicative policy decision is made for a situation related to society. Knowledge transfer level: partial.
Issue C.7.7: There is a need for security camera system.	C7.2.2. Ensure area control with a Special Security Unit.	