

“Reproducing the Politics of Climate Change:
A Study of Thai Newspaper Reporting”

Duangkaew Dhiensawadj

School of Journalism, Media and Cultural Studies

Cardiff University

This thesis is submitted to Cardiff University in fulfilment of the requirements for
the Degree of Doctor of Philosophy

February 2018



ANNEX 1:

Specimen layout for Declaration/Statements page to be included in a thesis.

DECLARATION

This work has not been submitted in substance for any other degree or award at this or any other university or place of learning, nor is being submitted concurrently in candidature for any degree or other award.

Signed.....*Duanghkwan Dhiem.*..... (candidate) Date28 February 2018

STATEMENT 1

This thesis is being submitted in partial fulfillment of the requirements for the degree of ...PhD...(insert MCh, MD, MPhil, PhD etc, as appropriate)

Signed.....*Duanghkwan Dhiem.*..... (candidate) Date28 February 2018

STATEMENT 2

This thesis is the result of my own independent work/investigation, except where otherwise stated, and the thesis has not been edited by a third party beyond what is permitted by Cardiff University's Policy on the Use of Third Party Editors by Research Degree Students. Other sources are acknowledged by explicit references. The views expressed are my own.

Signed.....*Duanghkwan Dhiem.*..... (candidate) Date28 February 2018

STATEMENT 3

I hereby give consent for my thesis, if accepted, to be available online in the University's Open Access repository and for inter-library loan, and for the title and summary to be made available to outside organisations.

Signed.....*Duanghkwan Dhiem.*..... (candidate) Date28 February 2018

STATEMENT 4: PREVIOUSLY APPROVED BAR ON ACCESS

I hereby give consent for my thesis, if accepted, to be available online in the University's Open Access repository and for inter-library loans **after expiry of a bar on access previously approved by the Academic Standards & Quality Committee.**

Signed.....*Duanghkwan Dhiem.*..... (candidate) Date28 February 2018

Acknowledgements

My supervisor told me that “studying for a PhD is like a journey”. That was when I told him that doing this research has completely changed my ideas of journalism. Looking back at the beginning, this adventurous journey I had was never lonely. Through all the smooth tracks and steep paths I chose to travel, I had gained confidence from my supervisor, Professor Stuart Allan. I am grateful for four years of intellectual coaching and delightful supervision that always kept me on the right track. Working with him was an academic journey with magnificent views.

Also, I would like to express my deep gratitude to Professor Simon Cottle whose valuable viewpoints are central to the process of refining the draft of the thesis. He was always enthusiastic in supporting me and giving me constructive suggestions for the research project.

Unforgettably, I am in debt to people who were involved in and supported this research. I would like to thank journalists, communication specialists, and academics in Thailand who kindly participated in the interviews. I am grateful to Thammasat University who granted the scholarship, especially the dedication of the folks at the Journalism and Mass Communication faculty in covering workloads during my absence. Also, it has been a pleasure to go through thick and thin together with my comrades in Cardiff. Thank you from my heart.

A journey is more meaningful since someone is always waiting at the end of the journey. I feel thankful to my family, Mom, Dad, and my sister for giving me the opportunity to pursue this research without any troubles. Their patience that keeps my strength and courage is incomparable to anything.

Finally, I dedicate this thesis to the earth and her habitat who have not had a chance to speak for themselves.

Abstract

This thesis aims to investigate the news reporting of climate change issues in three Thai newspapers, examining in particular the part played by journalistic practices in their representation. Key concepts from theories of risk society and critical approaches to news production are employed to formulate the conceptual framework. In empirical terms, two methods are employed to gather and interpret evidence.

Specifically, a textual analysis is employed to initially identify and assess how climate change issues were constructed in the three selected newspapers. It helps to document how journalistic values, newsworthiness and news narratives work to reproduce climate change as a global agenda. The findings interpret evidence that the officials and their claims dominate news related to climate change. These primary-definers exploit climate change issues to support the nationalist arguments related to national energy security, while environmentalists de-legitimize coal-fired power plant investment with climate change issues. The findings confirm economic and conflict framing in the news coverage.

Next, semi-structured interviews with journalists and news sources produced insights into the newsgathering processes. Evidence confirms that removing environmental news beats from the structure of newsgathering, the so-called the news net, sustains the power of institutional sources over environmental news agendas. The scarcity of skilled environmental journalists who are keen on environmental politics in Thailand fundamentally intensifies environmental frame-blindness, usual source dependency, and polarisation in newsrooms. This results in dominating capital growth news frames and dominated environmental news frames. These circumstances strengthen the position of the officials and resourceful organisations as the primary-definers in news related to climate change.

The thesis advances the central argument that journalistic practice sustains the definitional power of national officials regarding climate change politics in Thailand. Specifically, the selected newspapers report that reducing national emissions and solving climate change are priority issues, yet in actual fact the risks associated with climate change do not receive sufficient coverage. It is shown that by prioritising other types of environmental news, particularly around financial investment and legal issues, this news coverage fails to contribute to public understanding of sustainable development to an adequate extent

Table of Contents

Chapter 1: Introduction

1.1	Research Background.....	1
1.2	Formation of conceptual framework and methodology	7
1.3	Research questions.....	14
1.4	Thesis overview	14

Chapter 2: Literature Review

2.1	Introduction.....	18
2.2	Defining climate change	19
2.3	Representing risk in climate change	22
2.3.1	Human perceptions of ‘Nature’	22
2.3.2	Defining environmental risk	23
2.3.3	Mass media and social perception of risk in climate change.....	24
2.3.4	News media and definition of risk in climate change.....	25
2.4	Locating climate change in Thailand	28
2.4.1	Risk society.....	30
2.4.2	Mediascapes and the meaning of climate change	32
2.5	News media and the discourse of environment	34
2.6	Critical approaches to news production	36
2.6.1	Newswork in capitalisation.....	37
2.6.2	Typification of news	39
2.7	Challenging of environmental news production	40
2.7.1	Journalistic norms and the truth in environmental news	41
2.7.2	News narrative	42
2.7.3	The power of news sources.....	43
2.8	Conclusion	49

Chapter 3: Climate Change Policy and Environmental Journalism in Thailand

3.1	Introduction.....	52
3.2	Public Policy in climate change anticipation	53
3.3	Environmental journalism in Thailand	59
3.3.1	Environment news and politics.....	59

3.3.2	Environmental news in the age of conflict	61
3.3.3	Environmental news after the economic crisis	67
3.4	Status of climate change journalism in Thailand	70
3.4.1	Public communication about climate change	71
3.4.2	Climate Change News Coverage in Thailand.....	72
3.5	Conclusion	74

Chapter 4: Methodology

4.1	Introduction.....	76
4.2	Justification of methodological approach.....	76
4.2.1	Discourse and power.....	79
4.2.2	Applying critical discourse analysis to analyse news texts	81
4.3	Restatement of research questions and research methods.....	82
4.3.1	Textual analysis method	83
4.3.2	Semi-structured interview method.....	94
4.4	Conclusion	104

Chapter 5: Textual Analysis of News Related to Climate Change

5.1	Introduction.....	106
5.2	Episodic frames in news related to climate change.....	107
5.2.1	Global warming lawsuit agenda.....	108
5.2.2	The COP21 in Paris agenda	109
5.2.3	The influence of news policy on framing in news.....	110
5.3	Implications of news production and news narrative to the presentation of news related to climate change.....	112
5.3.1	<i>Thairath</i> newspaper and churnalism.....	113
5.3.2	<i>Krungthepturakit</i> and alternative news narratives of the COP21 in the Green Report	116
5.3.3	The <i>Bangkok Post</i> and typification of COP21 news articles	120
5.3.4	Challenging of reporting news related to climate change in Thailand	127
5.4	News narratives and embedded environmental truth-claims in news related to climate change.....	130
5.4.1	Global warming justice and the unspeakable fact of forest encroachment.....	130

5.4.2	The facts about climate change from local fishermen	133
5.4.3	Mitigation or adaptation: dichotomous aspects to climate change anticipation in the COP21 news.....	136
5.5	Newsworthiness and implications of representation of climate change in Thai society	143
5.5.1	Prominence and impact newsworthiness in hard news reports related to climate change	143
5.5.2	Embedding global agendas to the dilemmas of developmental policy in Thailand.....	150
5.5.3	Journalistic prejudice in framing dilemmas of development policy.....	161
5.6	The actors in news related to climate change.....	163
5.6.1	Defining primary-definers in news related to climate change: pervasiveness of powerful news actors as commentators.....	164
5.6.2	Portraying victims in climate change: pictures of ordinary people	174
5.6.3	The polar bear and rhetoric of risk in climate change	179
5.7	From climate change issues to environmental claims and discourses in Thai society.....	185
5.7.1	The influence of the web of facticity to the pervasiveness of bureaucratic discourse and managerial discourse	185
5.7.2	The urgency of climate change mitigation and lack of adaptation aspects	190
5.7.3	Taking for granted risks in climate change.....	192
5.7.4	Nationalist ideology in climate change discourse.....	195
5.8	Conclusion	199
Chapter 6 : The Analysis of Interviews with Journalists and News Sources		
6.1	Introduction.....	204
6.2	The overview of general perceptions related to climate change of journalists in Thailand.....	206
6.3	The structural control of news organisations and decrease of environmental aspects in newspapers.....	207
6.3.1	The news net as a structural control in news organisations.	209
6.3.2	The influences of the news net to “ <i>frame-blindness</i> ”	212
6.4	Institutional source dependency and journalistic bias toward usual sources.....	217

6.4.1	Institutional source dependency in news related to climate change	218
6.4.2	Journalistic bias toward usual sources in news related to climate change	224
6.5	Challenging the structure of the news net and initiation to collaborative newswork in environmental issues	229
6.6	Self-censorship and marketing pressure.....	234
6.7	Conclusion	237

Chapter 7: Conclusion

7.1	Introduction.....	241
7.2	Summary of key arguments and discussion	242
7.2.1	Prominent newsworthiness influence to the representation of climate change as global agendas in Thai newspapers and hard news narratives unable to reach comprehensiveness of climate change news.....	245
7.2.2	The power of politicians and officials in discursive practices about environment and climate change, while people in rural areas are constructed as a victim in news	247
7.2.3	Domestication of climate change discourse to support environmental truth claims of the government which increase nationalist ideologies in news related to climate change	248
7.2.4	The news net enhances institutional source dependency, environmental frame-blindness, and polarisation in newsrooms.....	251
7.3	Implications of this thesis’s research.....	257
7.4	Looking forward to the future of environmental journalism in Thailand	258
7.5	Future research	260
	Bibliography.....	261
	Appendices.....	273

List of Figures

Figure 1.1, Demonstration of relationship between research questions and theories & concepts, which are incorporated into conceptual framework of this thesis’s research.....	8
Figure 3.1, Two advertisements of TGO published in <i>Bangkok Post</i> newspapers 30-31 October 2015, (appendix 1-2).....	56
Figure 3.2, The proportion of fuel supply in electricity generation in Thailand (Ministry of Energy 2017).....	57
Figure 4.1, Front page of the <i>Bangkok Post</i> newspaper.....	88
Figure 4.2, Front page of <i>Krungthepturakit</i> newspaper.....	89
Figure 4.3, Front-page of <i>Thairath</i> newspaper.....	90
Figure 4.4, Articles found from full-text search engine separated by type total of 481 items (June - December 2015).....	92
Figure 4.5, Trending of news articles related to climate change amount in three newspapers during June - December 2015.....	93
Figure 5.1, Three news articles from <i>Bangkok Post</i> (left), <i>Krungthepturakit</i> (middle), <i>Thairath</i> (right) published on the day that the COP21 reached consensus.....	111
Figure 5.2, The article in <i>Thairath</i> newspapers; “More poor because global warming”.....	115
Figure 5.3, Front page news image in <i>Bangkok Post</i> 2 December 2015.....	121
Figure 5.4, Layout design of news article in <i>Bangkok Post</i> page 3, special report (left) and news report (right).....	126
Figure 5.5, Left - the article in <i>Krungthepturakit</i> newspaper published in the section “social-community and environment” 27 July 2015 (appendix 29). Right - the article in <i>Krungthepturakit</i> newspaper published in the section “social-community and environment” 19 August 2015.....	127
Figure 5.6, Hard news published in the <i>Bangkok Post</i> newspaper 28 September 2015, page 2 (top left) (appendix 22).....	130
Figure 5.7, Special report published in the <i>Bangkok Post</i> newspaper 28 September 2015, page 2 (top right).....	132
Figure 5.8, Special report published in <i>Bangkok Post</i> newspaper 7 December 2015, page 4 (top left) (appendix 15).....	133

Figure 5.9, Front-page article in <i>Thairath</i> newspaper that criticizes budget spending for traveling to the COP21 meeting.....	145
Figure 5.10, The image of iconic animals in newspapers.....	147
Figure 5.11, Special report published in the <i>Bangkok Post</i> on 5 December 2015, page 5.....	156
Figure 5.12, The news report in the <i>Bangkok Post</i> newspaper, 2 December 2015, page 2.....	165
Figure 5.13, News image of British scientist on page 4 of <i>Bangkok Post</i> newspaper, 3 July 2015.....	175
Figure 5.14, News image of local people published on the front-page of <i>Krungthepturakit</i> newspaper, 30 November 2015.....	175
Figure 5.15, The news image published in the agricultural news section of <i>Thairath</i> newspaper, 10 July 2015, p.7.....	179
Figure 7.1 the diagram demonstrates key findings, arguments and their relationship in this research.....	244

List of Tables

Table 4.1: Number of news articles related to climate change in three newspapers during June – December 2015, separated by publications and news agendas.....	93
Table 4.2: The list of informants who are journalist or veteran journalist, separated by work experience in environmental news and industrial and economic news beats.	102
Table 4.3: The list of informants who are news sources for climate change related news, separated by work experience in communication issues, which are science and environment, industrial and economic.....	103
Table 5.1: Illustration of news article structure, content of the COP21 report, and sources mentioned in the article published on the final day of the meeting.....	114
Table 5.2: Main columns in the December issue of the <i>Green Report</i> separated by page, headline and space.....	118
Table 5.3: The articles that report the COP21 news agenda during the COP21 meeting in Paris, 1-14 December 2015.....	123
Table 5.4: Demonstrates conflict angles, actors in conflicts that were applied to news cases and the example of news content in the articles.....	152
Table 5.5: Three news articles related to climate change that associate the PDP2015 with the COP21 news agenda.....	153
Table 5.6: Demonstration of primary-definers and truth-claims in hard news articles that report the COP21 news agenda, published in three newspapers during seven months.....	166
Table 5.7: Sources, perspective to the COP21, and example of news content in news scoop published on the front page of the <i>Bangkok Post</i> newspaper on 14 December 2015.....	170
Table 5.8: The narrative devices found in headlines and leads of news articles.....	183
Table 5.9: Reportage speech and news sources that applied bureaucratic discourse in climate change mitigation in news articles.....	187

Chapter 1

Introduction

The objective of this chapter is to explain the research background for the thesis, summarise the formation of its conceptual frameworks and explain how and why the research questions were formulated. The first section specifically introduces the background of - and the relationship between - Thailand and the global climate change movement, as well as the critical issue of the influence of particular news sources in news related to climate change that is the focal point of this research. The following section summarises and provides a visualised diagram of how this research formulates the conceptual framework from theories, concepts, and pilot studies before the discussion of academic literature is illustrated in depth in Chapter 2. The final section of the thesis overview is provided to indicate the narrative structure of the thesis and highlight the chapters' main features.

1.1 Research Background

This thesis's research focuses on the issue of journalistic practices in climate change agendas –in particular, the influence of authoritative news sources on the representation of climate change agendas in news media in Thailand. The academic study of climate change in media discourse is a significant issue that has been explored widely from diverse perspectives. Among large numbers of empirical findings in climate change coverage, research in media studies evidently underpins the transformation of climate change issues from environmental agendas into political agendas in news coverage. The longitudinal study of four magazines in the United States and the United Kingdom during 1989-2009 confirms that political framing dominated the coverage, while scientific framing had diminished (Tillinast 2013). The transformation of climate change agendas in news has evolved around the politics of climate change at national and international levels. Olausson (2009) conducts a frame analysis in climate change coverage of Swedish newspapers and concludes that journalists are accountable for their political setting in both national dimensions and the transnational political realm of the European Union to establish the framing of global climate change. The subsequent research (Olausson 2014) further clarifies this transformation of climate change discourse in news. The domestication of climate change in media coverage is evident by using critical discourse analysis (CDA) to analyse news coverage of the United

States, Sweden, and India. The findings show three subcategories of the domestication of climate change discourse in news: introverted-domestication, extroverted-domestication, and counter-domestication. The research also argues that the climate change issue is presented in news as “two-sides of the same coin” that connects both local and global phenomena. According to these empirical findings, the understanding of this transformable issue cannot be achieved without particular theoretical viewpoints.

This research approaches climate change phenomena from the theoretical viewpoint of risk society (Beck 1992) and world risk society (Beck 1999). The theorist explains “reflexive modernisation” (ibid.,p.20), where science and technology produce economic growth, has endangered itself. In this reflexive modernisation, the destruction of the environment, for example by chemical pollution, climate change is unable to be predicted and controlled by the means of technology. Moreover, its dangers do not anchor to geographical origins but penetrate beyond national boundaries. This reflexive modernisation thus triggers a politically mouldable impulse towards the development of cooperative international institutions. Beck insists on the necessity to approach the environmental problems in the reflexive modernization society from the “realist-constructivism” paradigm that acknowledges the hazards in the material world proven by hard science, as well as the consequences of the constructed discourses of environmental dangers to particular societies (ibid., pp.23-26). This paradigm assists this research to approach climate change news agendas as “glocal” phenomena that incorporate global environmental problems to the arena of international and national politics and economics. On the other hand, the issue of ecological effects of climate change specifically to local domains can play a dominant part in news coverage. In this sense, the examination of climate change agendas should not be limited to specific news genres but open to observe the transformation of the agendas to diverse news sections.

By contending that environmental destruction should be perceived as the problem of destructive capitalist development, Beck asserts that the media play a crucial part in stimulating the definition of risk commenced by the technocrats, which is the sustenance of hidden power structures in risk society. Nevertheless, this perspective is criticised by some scholars (see Anderson 2014, pp.14-17) for the lack of empirical evidence and neglect of the differences between media types and their cultural context. To this notion, the studies which investigate the influence of news sources to environmental news coverage signify the

necessity to acknowledge the cultural and political ideologies' differences in which the target media operate. Research in the context of the US shows that environmental risks are defined by governmental and industrial sources in mainstream newspapers rather than expert sources (see Cox 2010, p.369). Similarly, in climate change agendas, research illuminates the influences of political news sources to climate change definition in news reports. Carvalho (2007) found that the definition of the greenhouse effect in news has been controlled by the politician news sources who are the politician since 1990. Other scholars (Allan 2002; Anderson 2014) advance the predominance of the official news sources in climate change coverage. For this research, the aforementioned literature gives the idea that, first, the examination of climate change coverage should pay attention to the selective news sources as some of the actors who are involved in the power relation of risk definitions, as well as examining their claims made in relations to climate change. Second, and in consequence, this examination needs to acknowledge political and cultural contexts in which the news entities operate. Dirikx and Gelders (2010) argue that the ideological cultures of newspapers in particular countries, such as France and the UK, can influence the coverage of climate change. This impact depends on the factors of political debate about climate change in the country and the involvement of journalism with political history in such contexts.

This thesis's research employs a critical approach to news production in order to analyse the power of news sources in defining climate change issues in news. The focal point of the analysis thus concerns the issue of how particular news sources secure news coverage about climate change. Therefore, the issue of the relationships between journalists and news sources, as well as the strategies of news sources, are included in the analysis. Importantly, the foremost issue concerns the journalistic conventions that enhance the power of "primary-definers" (Hall et al., 1978, p.57), which derive from routine practices of news media in the proximity of the elite class. Although the idea of primary-definers usually points to the dominance of authority agents, Manning (2001) argues that business elites can always influence the government. It is thus vital to be aware that the voices of elite classes are those of plurality. These diverse groups such as business elites, political groups, and pressure groups always compete to dominate discourse in news media for their own purposes (ibid.). Hansen (2000) and Anderson (2000) also mention the opportunity of environmental groups to secure their environmental agendas in news coverage, particularly in local media. Importantly, studies (Curran 1987, Miller and Reilly 1993, Manning 2001) point out that news sources can influence the news content in both structural pressure (the limitation of

routine production) and instrumental pressure in sponsorship. Therefore, to study the primary-definers in environmental discourse, it should be open to a wider identifying appearance of social actors in news. To this notion, this research does not rush to conclude that the officials completely own the status of the primary-definers in climate change agendas. In addition, the power of primary-definers needs further investigation as to which conditions determine such power.

Accordingly, this thesis's research initially starts from gaining the understanding of political and cultural contexts that underpin the operation of news entities in Thailand. Importantly, this research takes the steps from conducting news text analysis in the first place to identify particular news sources manifested in news coverage of climate change agendas. This also results in the insights into how climate change agendas and their risks are mediated in news coverage and by whom. This matter is empirically evaluated on the basis of relevant concepts in the sociology of journalism that is discussed in-depth in Chapter 2. This means that journalists are included as some of the institutional actors who can frame climate change agendas in particular directions. In this sense, this research consists of dual parts of analysis that involve 1) the analysis in the paradigm of "sociology of news production", which Manning (2001) sees as the study about the news media structures that benefit the power of elite people in accessing and controlling media's content to maintain their power in political debate. This type of study has been conducted, based on the approach of political-economy (see Manning 2001, pp.17-40), and 2) the analysis in the tradition of a "culturalist" perspective mentioned in Cottle (2011). The latter approach focuses on the way that journalists as an institution select symbolic elements in news to narrate climate change and embed climate change in the other environmental agendas which finally enhance and/or reiterate particular ideologies in the society.

In regard to environmental news coverage in Thailand, the prominence of the official news sources is evidenced widely in pertinent academic research (Kaewthep 2013, p.238). However, there are a few studies which directly contribute to the analysis of climate change coverage. Relevant here is Olarnrat's (2009) comparative study of climate change coverage on four news websites (*USA Today*, *The Sun*, *Japan Times*, and *Manager Online*). Olarnrat concludes that the Thai news website focuses on the agenda of climate change mitigation. However, the findings do not reveal news sources found in the coverage of climate change. Similarly, Salathong (2011) quantitatively analyses climate change news coverage from four

daily newspapers in Thailand. The study reveals that news narratives employed in climate change coverage discourage the education of sustainable development (ESD). Also, environmental journalists perceive that reporting facts about climate change with balance and roundness which “leave the readers to think about it by themselves” is the duty of reporters (Wipatayotin, cited in Salathong 2011, p.174). Moreover, two quantitative content analysis studies both address the fact that “climate change”, and “global warming” are usually referred to in a number of news stories that signify “corporate greenwashing”, the environmental news content which is derived from the tactics of corporate public relations to support business agendas (Williams 2015). Further from the analysis of news coverage, Chongkolrattanaporn (2011) analyses framing employed in the communication materials of climate change campaigns organised by the Bangkok Metropolitan Administration. The study concludes that, despite the objective of the campaigns to increase climate change awareness to the public, their media content is embedded with hidden agendas to promote political parties and the political ideologies. Regarding these limited empirical studies of climate change journalism in Thailand, one can presume that climate change agendas are publicised by particular social actors, especially authoritative actors and business actors to support their political agendas through news media in Thailand. However, this assumption is made based on insufficient evidence. The lack of empirical study in this area thus substantially reinforces the need to investigate the manifestation of climate change agendas in Thai news media, especially investigative news sources’ influences in climate change news production.

Climate change issues have earned the attention of Thai governments. On the one hand, the signification of climate change mitigation, which is praised globally, has been acknowledged by the government. This international movement urged the Thai government to ratify the United Nations Framework Convention on Climate Change in 1995. Also, the government vowed to follow the Kyoto Protocol in 2002. It was mentioned in the Alternative Energy Development Plan 2013 that reducing greenhouse gases is an urgent issue and that failing to comply with global standards could enact trading sanctions. Moving to a Low Carbon Society certifies Thailand as “a determined country in utilising renewable energy to the global arena” (The Ministry of Energy Thailand 2012). This ambition was followed by pledging to accept the Paris Agreement in reducing greenhouse gas emissions by 25% from current levels. On the other hand, it seems that the pressure to reduce emissions demands that the government enhances its environmental regulations in the country. In 2005, the

government legalised a compensation model for calculation of penalties claimed in forest encroachment by measuring the cost-benefits of damaged forest with earnings from carbon credits. The department of National Parks, Wildlife and Plant Conservation, whose compensation model derived from evaluation of benefits of damaged forest areas, market valuations, cost replacement methods, and recovery costs and carbon credits, claimed that the compensation model is based on appropriate criteria that are consistent with climate change mitigation. By legalising this method, it seems that marginalised people, especially ethnic groups, are more vulnerable to enforcement (Kaiyoonwong 2009). On 20 May 2010, Phattalung Provincial Court ruled that offenders who breached conserved areas, in so called, global warming lawsuits, were liable to compensation rates of 150,942.70 Baht/rai/year based on this academic study model (Kongton 2010).

Although there is no strong evidence that verifies a direct correlation between the pressure on the government to reduce emissions and the legislation in “global warming lawsuits”, this circumstance signals the necessity to investigate how knowledge about climate change is mediated in news media and claims made by institutional news actors. It evidences the close and complicated relationship among power, knowledge and truth, which Charounsinolarn (2006) contends that “eco-knowledge can lead to geo-power to control and to manage environment and governmentality” (ibid., p.211). Accordingly, this research also pays attention to the narrative strategies of journalists and news sources that are key attributes to empower climate change agendas in news coverage. In order to achieve this, it requires both the insights into news production processes from the perspective of the sociology of news production and the research methodology that has adequate sensitivity to analyse closely “the codification” (Allan 2011, p.98) in the narrative of news texts. This research thus employs two research methods, textual analysis and semi-structured interviews, that complement each other in exploring the interaction between journalists and news sources in producing environmental news. The details of the research methodology and the methods are discussed further in Chapter 4.

This thesis’s research, which aims to empirically investigate the manifestation of climate change agendas in news coverage, which concerns journalistic practices, prioritising of particular news sources, and environmental claims made in news stories, is important to enhance the comprehension in the accountability of journalism to environmental issues in Thailand. The principal research for this study was conducted in 2015, when environmental

journalism in Thailand was in decline. Samabhuti (1997) and Keawthep (2013) indicate that the downturn of environmental journalism in Thailand has been occurring since 1997, when the economic crisis hit the financial status of newspapers in Thailand. This caused the newspapers in Thailand to close down their environmental news desks and remove environmental news sections from their news pages. However, Salathong (2011) argues that climate change issues were mentioned continuously in daily newspapers during 2005-2010 (*ibid.*, p.55). It can be assumed that the agendas of climate change in Thai newspapers have been integrated into other news agendas. Cottle (2011) contends that the climate change issue can be transformed to be implemented with other news agendas when the issue has been established adequately on the agendas of media and politics. This might suggest that climate change news coverage is produced by general journalists. In fact, this circumstance requires further investigation to earn insights into climate change newsgathering processes and particular determining factors, especially news policy. Importantly, research (Carvalho 2007) confirms that news policies have influenced news framing and source selection in climate change news, as well as the way that scientific data are interpreted in the coverage. It has to be emphasised that this issue needs to investigate cultural and political backdrops in which such news organisations are operating.

1.2 Formation of conceptual framework and methodology

This section summarises the formation of the conceptual framework informing this thesis's mode of enquiry. Distinct from the literature review in Chapter 2 that discusses, in detail, theories and concepts, this section aims to explain the overview of how this research develops the conceptual framework, as well as the approach of this research in employing theoretical concepts to formulate four research questions. This notion is visualised in Figure 1.1 that exhibits as follows:

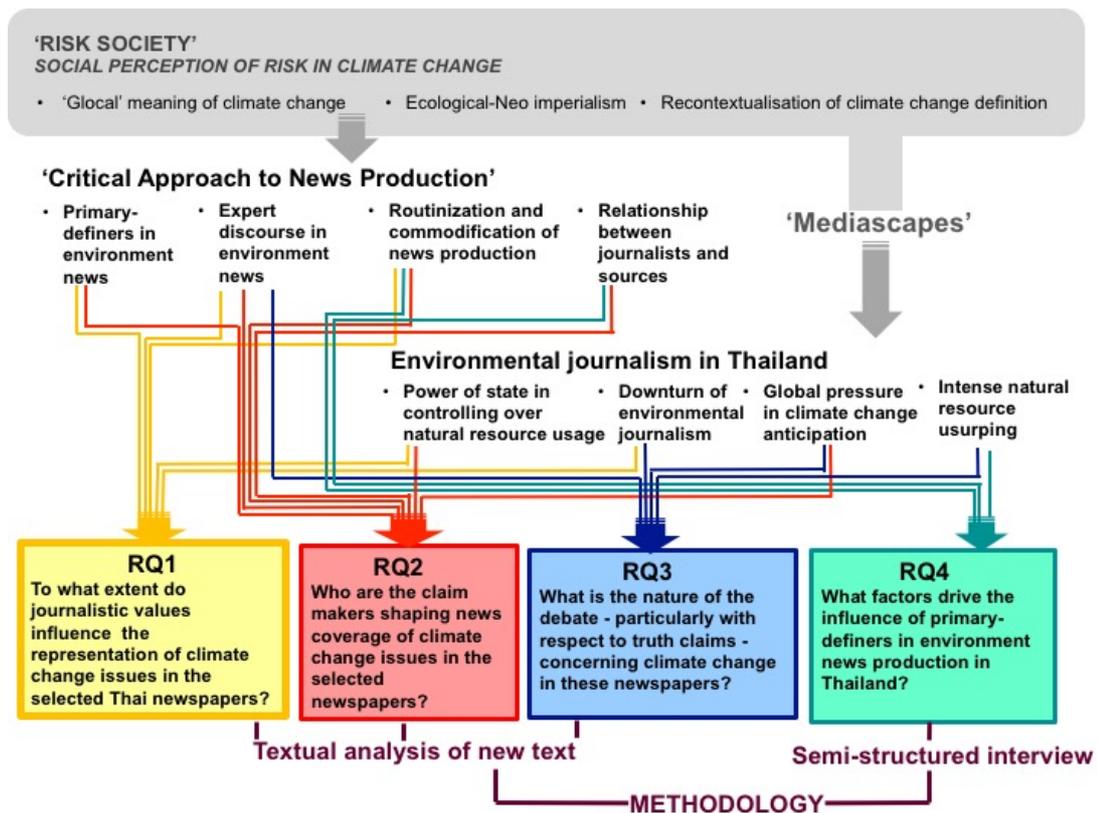


Figure 1.1, Demonstration of the relationship between research questions and theories & concepts, which are incorporated into the conceptual framework of this thesis's research

The rationale for the conceptual framework of this research is constructed from three main approaches: the theory of risk society (Beck 1992), previous applications of the notion of mediascape (Appadurai 1996), and key concepts from critical approaches to investigating news production (Tuchman 1980; Manning 2001; Gitlin 2003; Schudson 2003) within the sociology of journalism. The conceptual framework is further refined by reviewing the context of environmental journalism in Thailand. This conceptual formation allows the researcher to problematise discursive practices embedded in news related to climate change in Thailand, which creates a basis, in turn, to formulate four research questions.

Firstly, the theory of risk society is applied to approach climate change as a new risk in modernisation, whose effects are both “*realistic*” and “*constructed*” in society. Climate change is a problem that reflects the circumstance of “*reflexive modernisation*” (Beck 1999), where the dangers triggered by negative side effects of science and technology are neither controllable nor calculable. Fossil fuel exploitation, which had been the core source for generating global economics during industrialisation, has become a major contributor to

greenhouse gas emissions. The announcement of the United States to withdraw its collaboration with the Paris Agreement evidences that global emissions are not easy to control, although climate change certainty is scientifically confirmed. Meanwhile, the effects from changing weather patterns are objectively observable globally. Anticipation of risks in climate change thus exceeds capability of the traditional system in nation states, law, and scientific knowledge.

On the other hand, the uncertainty of climate change enhances “the staged anticipation of disasters and catastrophes (that) obliges us to take preventive action” (ibid., 2009, p.11), where the institutions enjoy defining climate change and its risks to society. Similarly, people participate in climate change discourse to understand and to anticipate the risks of climate change. Therefore, the risks of climate change are both real and constructed by distinct perceptions of individuals. While risks in climate change exist objectively all over the world, individuals perceive the risks of climate change locally depending on manifested effects and culture. This “glocal” (Beck 2009) attribution of climate change increases fragments of the perception of climate change. Central to this “clash of risk culture” is the repercussion of global media performance that constructs and transforms risks in climate change worldwide; in Beck’s words:

“the distinction between risk and cultural perception of risk becomes blurred. The same risk becomes ‘real’ in different ways from the perspective of different countries and cultures – as it is assessed differently.” (ibid, p.12)

Accordingly, understanding the cultural meaning of climate change is vital to clarify the complicated politics of climate change in global and local dimensions. The momentum of climate change during 1980 was influenced by the release of the Brundland report. This integrity initiative mentioned in the Brundland report supports sustainable development to become a global norm in dealing with exploitation of natural resources for capitalism. Dominating the global arena, sustainable development knowledge is adopted into institutional governance and the enforcement of managerial regimes in nation states (see Jamison 2003). As a repercussion, institutional production of sustainable development knowledge is a catalyst for the clash between “green knowledge” (ibid., 2003) and environmental knowledge that are the residues of traditional culture in nation states. Research evidences that the domestication of climate change discourse and representation of sustainable development in news media has impacted on constructing collaborative identities of EU countries beyond nation states (Olausson 2010), while the implication of climate

change discourse in developing countries, for example, India, contributes differently to nationalist ideologies (Billett 2010).

The idea of sustainable development is endorsed by the United Nations Development Program (UNDP), which impacts on the global south (Fahn 2008). While knowledge in environmental science between northern and southern nations is divided, global pressure demands nation states to comply with green knowledge in their national regimes. This “ecological neo-imperialism” (Beck 1999) has become the new factor that increases turbulence in environmental discourses in a nation. This hegemony does not merely impact on the eco-politics arena but influences the “national mentality” (Jamison 2003, p.103) of the environment.

This perspective allows the researcher to problematise knowledge of climate change as a powerful discourse that is reproduced in the realm of news media in Thailand, where cultural factors are different from those of western nations. Concerning the environmental situations of developing countries, natural resources are turned into industrial input to stimulate economic growth and the usurping of natural resources between the state and communities is intense in Thailand (see Charounsinolarn 2006). The investigation of climate change discourse manifested in news agendas thus reveals how climate change issues are represented in Thai news media. What are the attributes of climate change discourse that are produced in the context of Thailand? Importantly, which social actors play their parts in the transformation of climate change discourse in Thai news media?

Reflecting on the history of the media industry in the country, the growth of industry, including news media and advertising media, is stimulated by industrialisation (Wongtheerathorn [n.d.]) that rapidly accelerates the destruction of the environment. Although political instability in Thailand has intervened in freedom of the press, the censorship scheme is limited merely to the issues relating to the monarchy, politics, and religion (Tangwisutijit and Janviroj 1995), while the issues of business and trading are not affected by government sanctions. Therefore, the news media sphere has become the place where high status news sources and experts enjoy advancing their claims. This circumstance has led to environmental news agendas being shaped and framed by the power of business news sources and sponsorship (ibid., 1995), while the voice of ordinary people is suppressed. However, the power relations in defining environmental issues are challenged in the context

of reflexive modernisation, where the power of the state increasingly controls and regulates environmental policy in order to comply with global movement. This situation is also affected by the increasing performance of international environmental actors who represent “politics from below” (Beck 1999). In this sense, the uncertainty about definitional power concerning environmental issues increases turbulence in discursive struggles within the country. This thesis’s research thus focuses on identifying the primary-definers in climate change issues and their truth-claims in environmental debate against the backdrop of reflexive modernisation.

Secondly, the notion of discourse and power assists the researcher in both framing the conceptual framework of this thesis’s research, as well as constructing the methodology. In terms of conceptual frameworks, two sets of knowledge are problematized, namely, climate change knowledge and journalistic knowledge. This thesis’s research approaches news text as the product of “codification” (Allan 2001). News text is “governed by analysable rules and transformations” (Motion and Leitch 2009, p.86). These rules constitute a “system of thought” that determined what should be said, who could speak, the positions from which they could speak, and the viewpoints that could be presented. Accordingly, the primary tasks of discourse analysis are to focus on the formation and transformation of the discourses or how ideas are “put into discourse”. In this sense, production of news text has its own discipline to present realities in society. Central to newswork in capitalisation are the factors of news production processes that aim to maximize resources in routine news production (see Tuchman 1980). This also focuses on the influence of journalistic knowledge, which is a tacit experience in newswork, to the process of codification of news adopted by journalists from distinct news beats. Particular journalistic norms, especially the process of selecting news sources, newsworthiness, and news narratives are included in the investigation. These are in response to revelations of how news text embeds the meaning of what humans in modern society should think about as ‘common sense’ in natural and environmental reality. Also, the ways in which environmental debates are shaped and framed in news discourse are empirically clarified in this.

Two pilot studies were conducted for this thesis’s research during 2014-2015, which also assisted in constructing the methodology framework of this study. The first pilot study in 2014, which collected samples of news articles that mentioned climate change from 44 daily newspapers and semi-weekly newspapers in Thailand, confirms a previous content

analysis study (Salathong 2011), which evidences climate change issues as being frequently reported in international news and marketing news sections. Salathong (2011) and Olarnrat (2009) claim that climate change coverage in newspapers is conflated with “greenwashing” rather than with the real environmental issues. Based on quantitative analysis (Kasemwit 2008; Olarnrat 2009; Salathong 2009; Salathong 2011), misleading reports of climate change issues often result from inexperienced journalists. However, the issue of truth claims and their implications to the realities of climate change in Thai society have not been answered yet from a quantitative analysis aspect. This thus further explores climate change issues in news by employing a textual analysis method that can reveal environmental truth claims and particular discursive powers which influence the representation of climate change issues in newspapers.

The second pilot study for this thesis’s research, which was conducted in 2015 to compare two environmental news agendas, the G7 2015 summit in Germany and the drought crisis in Thailand, reported in selected newspapers in Thailand. In addition to assisting in framing the strategy of data collection, this pilot study enriched my understanding about the transformation of climate change issues connected with other news agendas (local and international). In relation to the complex nature of climate change issues, a number of news genres engage climate change agendas with their reports. In this sense, the transformation of climate change meaning is not limited to environmental news. While previous studies (Kasemwit 2008; Olarnrat 2009; Salathong 2009; Salathong 2011) excluded news that does not directly report about climate change from their analyses, this allows for the analysis of diverse news genres that feature climate change issues in their narrative. Instead of limiting the analysis to “climate change news”, this includes the possibility that climate change issues can be transformed to other agendas in Thai society. By implementing this idea, truth claims and claim makers that manifest in extended news genres can be investigated in response to the “glocal” nature of climate change. This thus applies this notion to a data collection process that incorporates “news related to climate change” with textual analysis.

Regarding studies about climate change news coverage in Thailand, previous studies have been conducted within the approach of quantitative content analysis which allows understating of framing in climate change news. Although the findings confirm that climate change is framed by an alarmist perspective in news reports (Olarnrat 2009; Salathong 2011), which is similar to climate change representation in other countries (Leseiowitz

2007; Boykoff 2008; R.Foust and Murphy 2009 ; Sampei and Aoyagi-Usui 2009; Young and Dugas 2011; Pasquare and Oppizi 2012). These studies cannot identify definitional power relations between journalists and diverse news sources that contribute to such framing and representation of climate change. This understanding is vital to clarify the relationship of climate change agendas and other environmental debates in society.

The aim of this thesis's research is thus developed, based on the acknowledgement of transformability of climate change discourse found in global research and complex environmental discourses in Thai society. These reasons contribute to determining the timeframe and the strategy of data collection in this thesis's research. The research methods are divided into two phases, the first phase concerning a textual analysis method and the second phase consisting of semi-structured interviews. Previous research (Carvalho 2007; Dirikx 2010) evidences high volumes of climate change coverage during the "Critical Discourse Moment" (Carvalho 2007, p.226), which refers to the period when significant events related to climate change take place, especially the IPCC conference. The correlation between the volume of climate change news and the critical discourse moment is also evidenced in the study of climate change coverage in Thai newspapers (Salathong 2011, pp.118-120). In order to maximize the articles included in the analysis, this thesis's research thus employed a data collection period between 1 June and 31 December 2015, when Thailand was preparing to attend the COP21 meeting in Paris that took place from 30 November to 12 December 2015. By using full-text search engines on three daily newspapers during the seven-month timeframe, this resulted in a total of 481 articles which mention climate change. The researcher undertook descriptive analyses to initially learn the overview of their attributions, for example news agendas, frequency, placement, and types of sources (See appendix 37). These results have correlations with the findings of Salathong (2011). Finally, the researcher purposively selected 36 articles for closed textual analysis in detail. In terms of the semi-structured interview, the interview method, questions, and procedure were designed in the light of findings from textual analyses. The details of the research methodology and the design of research methods are provided in Chapter 4.

This thesis's mode of enquiry aims to empirically investigate the manifestation of climate change agendas in news coverage that is not limited to specific news genres. The questions concern journalistic practices, journalistic conventions, news sources and their truth claims, and are raised in order to analyse news texts. The analysis starts by analysing

the journalistic and linguistic elements that are shown in particular news narratives, as well as examining particular journalistic and linguistic elements that are absent in the narratives of news related to climate change. This textual analysis method complements the semi-structured interview methods to discover factors in the newsgathering processes that enhance the dominance of particular news sources in news related to climate change.

1.3 Research questions

In the light of conceptual frameworks, four research questions were formulated to examine discursive practices in news related to climate change and the agents involved in the process. The research questions were designed to be open and flexible for accruing and extending insights during the analysis process without limitation from theoretical viewpoints. The depth of the four questions is developed for the benefit of analysing news discourse. The first research question starts from the analysis of observable elements in news texts. The following questions further investigate and interpret more deeply the latent elements concerned with discourse analysis (Fairclough 1995). Finally, the fourth research question pursues the exploration of unobservable relationships between news and social actors. Accordingly, the four research questions include dimensions of text, context, and social practice regarding the approach of textual analysis. The research questions are as follows:

- 1.3.1** To what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers?
- 1.3.2** Who are the claims-makers shaping news coverage of climate change issues in the selected newspapers?
- 1.3.3** What is the nature of the debate - particularly with respect to truth claims - concerning climate change in these newspapers?
- 1.3.4** What factors drive the influence of primary-definers in environmental news production in Thailand?

1.4 Thesis overview

Overall, this thesis's research, comprising seven chapters, empirically clarifies the discursive struggles in environmental debates in Thailand. As will be shown, findings derived from the application of two empirical research methods, namely textual analysis and

semi-structured interviews, evidence that official news sources can secure advantageous access to news coverage related to environmental issues. This predominance is the result of the attempt to follow journalistic conventions – particularly the notion of “objective reporting”. Along with this operation, the climate change agenda in news reflects the domestication of discourse that serves nationalist claims advanced by authoritative news sources. The findings thus confirm that climate change issues are distinctively represented in specific cultures. In terms of Thai newspapers, this thesis’s research argues that the structure of news departments in the present day – specifically, the removal of the environmental news beat from the operation of newsgathering, that is, the so-called “the news net” - has discontinued the development and its speciality in environmental issues of the newsrooms. These and related factors are shown to reinforce the dominant capitalist ideology in news framing, while other news framings, especially environmental news framings, are downplayed in response.

This chapter provides an overview of the thesis and conceptual frameworks. In Chapter 2, a review of the appropriate literature and key theories is illustrated. The chapter provides an underpinning approach towards nature and the environment in this thesis’ research. The theory of risk society is exhibited with the concept of mediascapes, which collaborate in building perspectives to climate change agendas in Thailand. Also, the chapter addresses environmental discourses in modernisation, which gains understanding of the relationship between discourses and the ideologies of the researcher. Finally, literature and previous research related to the concepts in critical approach to news production are examined.

Chapter 3 emphasises the distinct social and cultural factors of Thailand that impact on environmental policies and environmental journalism. The chapter begins by discussing the national policy on anticipating climate change. Next, the history and development of environmental journalism are demonstrated to provide fundamental comprehension in status and challenges in environmental journalism in Thailand. The chapter finally draws attention to previous studies that analyse climate change news coverage in Thailand.

The thesis’s methodological strategies are introduced and explained in Chapter 4. The justification for the chosen approach is demonstrated with reference to the secondary research literature review, where issues regarding discourse and power in environmental

news production proved to be especially worthy of investigation. Next, the chapter provides operational details about the thesis's deployment of textual analysis and semi-structured interview methods, together with the specific research questions which guide their application. The research timeframe in data collection and the procedure in data collection are also exhibited in this chapter.

In Chapter 5, the findings from the thesis's textual analysis are demonstrated. The chapter aims to answer research questions 1-3 concerning the identification of journalistic values, claim makers, and truth claims found in environmental debates reported in news articles related to climate change. The chapter starts from identifying news framing utilised in news articles related to climate change found in selected newspapers in Thailand. The chapter discusses two news agendas: the COP21 and the global warming lawsuit. The significant distinctions in the utilisation of news narratives in three newspapers are discussed. The chapter illustrates the arguments concerning the impact of journalistic values, especially newsworthiness and news narrative. Moreover, the chapter discusses concerns about the representation of ordinary people who are constructed as a victim, while politicians and officials, who are the primary-definers in news related to climate change, advance environmental truth claims to support national environmental practice. Finally, the chapter illustrates domestication of climate change agendas that contribute to nationalistic ideology and reflect crises in national identity in the global environmental movement.

The findings in Chapter 6 focus on demonstrating discussion related to the factors that drive the power of primary-definers in environmental debate manifested in news related to climate change. The findings from interview methods illustrate significant factors, namely, the failure of the news net in climate change newsgathering, the polarization in newsrooms, and the positive bias toward the institutional news sources. The discussion provides insights concerning challenges in environmental newsgathering processes in Thailand. The arguments related to "journalistic standards," which are regarded as "common sense" by journalists from economic and environmental news sections, are advanced in the chapter.

Finally, Chapter 7 concludes this thesis's research. In addition to recapping the key insights generated and examined across earlier chapters, it also elaborates the main arguments based on interpreting the significance of the empirical findings. The chapter then

addresses the implications of this thesis's contribution to current research debates on this topic, and makes suggestions and recommendations for future enquiries.

Chapter 2

Literature Review

2.1 Introduction

The representation of climate change issues in news is important to public literacy in climate change. This is because climate change issues are complex beyond the direct experience of individuals. The investigation of how climate change issues are mediated in news is thus vital for increasing the understanding about journalism's accountability in climate change literacy. In the course of reviewing pertinent research literature, this chapter aims to secure the basis for a theoretical framework which is built upon three main approaches; the theory of risk society (Beck 1992; 1999; 2009), the concept of "mediascapes" (Appadurai 1996), and relevant concepts from critical approaches to the sociology of news production (Tuchman 1980; Manning; 2001; Gitlin 2003). The assumptions underpinning previous studies of the representation of climate change in diverse news agendas will be problematised in order to highlight issues worthy of investigation in this thesis's research.

Climate change is a crucial phenomenon that evidences a reflexive modernising society, where environmental problems are beyond technology and science solutions. While the science of climate change ensures anthropogenic climate change, social perceptions of climate change reflect a "realist-constructivism" (Beck 1999, pp.23-26) character of risk in climate change. Arguably, the problems of climate change are real and they are affecting geographical locations differently. Although global media networks give attention to climate change problems, their multidimensional nature require the comprehension of integrated concepts of development, ecology and law. These are difficult to present precisely within the narratives of news media, especially the negative effects of climate change that are latent and manifest locally. This circumstance leads to the problems that risks in climate change presented in news media are narrated and visualised along the tradition of news production. Importantly, individuals gain perception and understanding of complex realities of climate change that are beyond direct experience from news media. Nevertheless, news discourse is institutionally constructed, as well as the fact that environmental realities in news are not neutral but ideologically attached. Central to this issue is thus uneven power in access and

control of news production. Interestingly, journalistic conventions themselves are pertinent to discursive practices in climate change news reports. Concerning climate change politics, the order of discourse, conflated in news related to climate change, and distributed by global media, suppresses the local meaning of environmental problems and increases the dominance of western capitalism to the third world. In other words, “ecological neo-imperialism” (Beck 1999) can be the effect of this circumstance.

This chapter offers an evaluative assessment of pertinent theories and empirical studies. The first section identifies the range of meanings associated with climate change utilised in this research. Then, the chapter emphasises the presentation of climate change in the news media, which engages social and cultural concepts of environment and nature. These sections are useful in providing a guiding perspective to issues concerning the representation of climate change in the global media. Section 2.4 provides an illustration of the implication and necessity of studying climate change representation in the context of Thailand. This part of the chapter initially bridges the global perspective to a specific location in Thailand, where cultural differences influence journalistic practice. This will be discussed in depth in the following chapter. Furthermore, in section 2.5, particular examples of the literature which identify climate change and environmental discourses presented in the news media are mentioned. This section illustrates the dynamics of ideological attachment in climate change discourse as theorised by other researchers. Finally, the perspective of the political economy of news production will be discussed in the final section.

2.2 Defining climate change

Global warming has been brought to public attention since 1988 when NASA scientists found that 99 percent of global warming is caused by human activities (Jaspal and Nerlich 2014). The second assessment report of the Intergovernmental Panel on Climate Change (IPCC) in December 1995 affirmed anthropogenic climate change. Nevertheless, there was much criticism during the 1980s-90s which argued that a large amount of climate change is probably caused naturally (Carvalho 2007). Later, the scientific consensus of anthropogenic global warming was reached in 2007 when the IPCC announced the fourth report (Castree 2010). The IPCC defines climate change as:

a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties, and this persists for an

extended period, typically decades or longer. It refers to any change in climate overtime, whether due to natural variability or as a result of human activity (Intergovernmental Panel on Climate Change 2015)

Also, the United Nations Framework Convention on Climate Change (UNFCCC) defined climate change as “a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.” (United Nation n.d.). According to two definitions, climate change concerns consequences from human activities or natural phenomenon that induce long term effects in the patterns of global temperature.

The science of climate change indicates that climate change is a large-scale, long-term shift in the pattern of weather or average temperatures of the planet (Met Office n.d.). This shifting of climate, which is the cycle of tropical climates and ice ages over 4.5 billion years, has endangered many species. Therefore, climate change can be regarded as a natural state of the earth’s climate system. Nevertheless, the fact that the recent changing of average temperatures of the planet is stimulated by anthropogenic climate change has been confirmed by scientists.

Greenhouse gas, which has increased dramatically since 1750 when the Industrial Revolution started, is a major contributor to climate change (see IPCC Fourth Assessment Report: Climate Change 2007). Fossil fuels have been used to generate economic growth in western countries since steam engine technology was invented. While it is the backbone of global industry growth, fossil fuels emit their byproduct, CO₂ gas. Emission causes a rise in temperatures which brings natural catastrophes all over the world, for example, endangering species, pandemics, floods and further dangers that are unable to be forecast.

Although the global community drives collaborative negotiation to anticipate climate change, it seems that reaching the international consensus of greenhouse gas mitigation is easier said than done. Since 2005, when the Kyoto protocol¹ was activated, until the success

¹ The Kyoto protocol was an international agreement that engaged 192 countries in ratifying the protocol. However, two powerful countries, The United State of America and China, neglected to comply with the convention. The US government claimed that to slow down the investment of the US, the world economy, which also depends on the US, would be affected. Nevertheless, the Kyoto Protocol fundamentally contributes to global cooperation in climate

of the Paris agreement in 2015, international efforts to reduce carbon emissions have been obstructed by disputes between developed countries and developing countries to justify emission rates. The Paris agreement, for example, is a recent international convention which engages nation members to join the Nationally Determined Contributions (NDCs) to reporting annual emission reduction. Although the convention is ratified, based on a consensus agreement of nation members, the mission to “keep the rising of global temperature this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius” (United Nation Framework Convention on Climate Change 2015) is challenged. It seems that the withdrawal of the USA, which is ranked as the second CO₂ global emitter, leads to uncertainty about global collaboration to anticipate climate change.

Regarding this context, the climate change issue is neither merely a scientific nor an environmental problem. On the contrary, scholars (Beck 1992; Strydom 2002; Giddens 2011) approach climate change as a political matter that combines a wide range of controversial issues in modern society, namely, fundamental investment, economic policy, human security, and morality. For example, the application of the Clean Development Mechanism (CDM), which is an apparently significant scheme to reduce greenhouse gas globally, integrates environmental hazards and financial approaches. On the one hand, the mechanism has stimulated investments of 59 billion USD since it was first established but the investment would drop dramatically after the expiration of the Kyoto Protocol. On the other hand, CDM is the mechanism to allow developed countries to earn licenses to pollute rather than encourage their emission reduction (Giddens 2011). In this sense, climate change anticipation is a complicated matter beyond simple science literacy or environmental education.

In terms of public perceptions of climate change, findings illustrate that the climate

change remedy. One significant scheme that enacted international collaboration to mitigate climate change is the Clean Development Mechanism (CDM). The countries under the Kyoto Protocol (Annex B), which is committed to emission-reduction or emission-limitation agreement, are allowed to earn the carbon credits by implementing the emission-reduction project in developing countries. These carbon credits (CER - certified emission reduction) are equivalent to one ton of CO₂. The credit is utilised in the carbon emission target subsidy as the country complies with the Kyoto Protocol (UNFCCC n.d.).

change issue remains complex to understand by the public, although there is an increase in climate change education around the world. Research (Reynolds et al. 2010) shows that American people have a better understanding of a broad range of causes and effects of climate change, compared to a previous study in 1992 which showed that people tended to conflate climate change with stratospheric ozone depletion. However, the experiment (Egan and Mulin 2012) shows that for each three degrees that local temperatures rise above normal, Americans become one percentage point more likely to agree that there is solid evidence that the earth is getting warmer. The study (Albertson 2015) confirmed that knowledge about climate change is also a significant factor to increase the attitude of Americans to take action on climate change when they receive a particular persuasive message.

Accordingly, public perception to climate change is beyond simple scientific knowledge or education, and it is determined by factors that vary across the context. Findings (Zia and Todd 2010; Reynolds et al. 2010) indicate the significance of ideology, social, and cultural combinations for increasing public understanding of climate change because climate change is perceived differently in different societies and cultures. Therefore, the focal point of this study is to examine climate change representation in news media which operates in a distinct national culture, namely that of Thailand.

2.3 Representing risk in climate change

Despite the complex dimensions of climate change, social perception of risks is dominated by the perspective of environmental disaster. This is because of longitudinal consequences that are unpredictable and the impact of geographical differences on climate change that increases difficulties to address the origin of the climate change effect. Accordingly, the following concepts, which maintain the idea of constructivism, are brought to reinstate the representation of risks in climate change for this thesis's research.

2.3.1 Human perceptions of 'Nature'

The perception of "nature" by humans is cumulatively constructed along human history rather than being the single reality (Castree 2013). It seems that various factors determine how humans perceive nature. Apart from the socio-cultural context, language itself is an influential factor in how people make sense of nature. The scholar pursues this

idea by indicating the ambiguous meaning of “nature” in the dualism of western thought. Basically, “nature” is a noun that refers to the environment, earth, landscape, etc. However, considering its adjective form, “natural”, the word can also mean “conventional” or “original”. By this, things that are opposite to conventional become “unnatural” e.g. cloning, bisexuality, zombies etc. This notion reflects that the meaning of nature is not rigid but is flexible and determined by underlying social cognitive systems and cultural contexts. Accordingly, the environment is defined by its context; for example, while industrial base society perceives environment as the capital for production activity, agricultural base society tends to relate environment holistically to people’s lives. This notion brings the query to how climate change is defined in the context of Thailand.

2.3.2 Defining environmental risk

Similar to the perception of humans to nature, the concept of environment is socially constructed. Since industrialisation, environmental destruction has been increasing due to over-exploitation of natural resources’ input to industrial activities. As a result, environment and ecology have become the subjects of study from diverse disciplines. The modern concept of nature is thus defined from the perspective of science and technology, in an attempt to control nature and to calculate the side effects of industrialization. Accordingly, the critical point here is how realities of environment and nature are socially constructed in the age of modernisation.

According to the world risk society thesis (Beck 1999), the environment is an institutional construction. “Nature” is not merely the physical world around us, but is also an idea constructed within society and culture. Similarly, the environment is defined diversely by social actors depending on their orientation of ideology combined with social positioning. Therefore, the definition of environment for scientists is different from that of the ecological movement and is not similar to that of lay people. By this, it shows that the concepts about ‘what environment is’ and ‘what the environmental crisis is’ in modernisation are manufactured far beyond the reality of the physical world. Moreover, the process that constructs the definitions of nature takes place naturally in social practice. It is constructed differently in each context. As Beck says:

in the theory of world risk society along the lines of institutional constructivism. ‘Nature’ and ‘destruction of nature’ are institutionally produced and defined (in

conflicts between lay people and experts) within industrially internalised nature (ibid., p.31)

In this sense, climate change can be identified as a side effect of industrialist activities which contributes to capitalism. Additionally, the impact of climate change, which is uncalculated and whose origin is difficult to claim, is paradoxically defined along with institutional construction. According to this perspective, the definitions of risks in climate change are not absolutely ascribed to particular dimensions. Conversely, risks in climate change can be perceived diversely, depending on individual experience and social construction.

2.3.3 Mass media and social perception of risk in climate change

Scholars (Strydom 2002; Beck 2009), maintain that mass media are crucial institutions that share in the power to refine and to constitute the definitions of risk in modern society. Meanwhile, multiple actors constantly identify risk in climate change; mass media are the sites where the definitions of risk are framed through the process of collective shared meaning systems (Eder 1993). Individuals assess their meaning of risks by learning from “multiple sub-frames” communicated by various social actors. The media content comprises these multiple sub-frames of risk in climate change that compete with each other. Finally, individuals select particular meanings of risks which are agreeable in the society to their understanding and the process finally resulted in the agreement of “a core cognitive frame” in each society. Research (Petts et al. 2001) shows that people who have less direct experience of climate change are more likely to understand risk by adopting information from mass media.

In terms of cultural meaning, mass media play a crucial part in providing cultural definitions of risk, which are varied across different contexts. These pluralities allowed non-western countries to identify what are the risks in modernization (Beck 2009). On the other hand, global mass media can reflect fragments of definitions of risks and convey conflicting experiences to their audience. Cottle (1998a) demonstrates that complexity of environmental risks in modern society tends to be diminished in the presentation of mass media. Traditions of media productions commodify environmental risks to cultural goods. It can be seen that environmental risk is visualised with symbols and geographical icons in television programmes just as in photojournalism (Petts et al. 2001).

In relation to the implication of mass media providing plurality of risks definitions, research, Reynolds (2010) suggests that presenting environmental risks in modern society, specifically the risks of climate change, should be localised to achieve greater climate change literacy in each society. Moreover, the studies in communicative style used in climate change issues (McNaught et al. 2014; Wirth 2014) found that utilising scientific explanations to the target group with lower science literacy reduces empowerment and self-resilience among climate change vulnerable communities.

In addition, this problem of hegemonic discourse is addressed in the theory of risk society. Beck (1999) points out that the gap between developed countries' and the third world's scientific knowledge and technology induces "ecological neo-imperialism". This means that the definition of environmental hazard in modern society can be dominated from the perspective of first world countries to benefit the capitalist ideology. Relating to this matter, this thesis's research pursues empirical clarification of the contest and negotiation in meanings of environmental issues in Asian culture. The findings are essential to understand the role of mass media in climate change anticipation.

Regarding risk in climate change, individuals rely on presentations portrayed in mass media to make sense of unobservable risks in actual experience. This leads to the problem that mass media space is not freely accessible to every actor. The media tend to give authority to the expert in defining modern environmental risks. Due to this, some scholars (Beck 1992; Tulloch and Zinn 2011; Cottle 2000; Castree 2013) contend that the meaning of risk in climate change is more engaged with the definition used by technocrats in the epistemic community, who assist in the industrialization process in which risks are manufactured. Beck (2009) describes the phenomenon in risk society where, although people gain knowledge of risk from diverse media, it seems to be that the more we know about risk, the more difficulty exists in calculation and refraining from danger. Consequently, it seems that we now live in a world full of dangers, which are defined by experts and publicised through the mass media.

2.3.4 News media and definition of risk in climate change

Reynolds et al. (2010) suggest that news media should participate in raising public understanding of climate change. In addition, news media have the potential to educate the

public about the science of climate change. News reports can help to differentiate “climate” from “weather” to their audiences. In a broader sense, news media can be cooperative in opening the opportunity for diverse perspectives relating to climate change mitigation and adaptation. Also, they can provide a public space for lay people to communicate their ideas and support public policy in responding to climate change.

Even though news media are accountable for clarifying realities of climate change, the truths of risks of climate change presented in news are not neutral in reality. In fact, the representation of risk of climate change in news arises from truth-claims from institutional actors. Moreover, news narratives about risks of climate change reflect competing discourses of environment in modern society. Beck (1999) indicates the power of experts in identifying risk that is apparently common and natural in media space. This power of experts in constructing discourse impacts deeply on society and potentially determines institutional policies operated across classes and horizons, As Beck states:

In risk society seemingly unimportant areas of political intervention and action are becoming extremely important and seemingly ‘minor’ changes do induce basic long-term transformation in the power game of risk politics. (ibid.1999, p.2-3)

In this sense, the operation of news media influences the environmental discursive struggle in society. In other words, news discourse reveals a tense field of debates between experts and counter-experts toward the definition of risk. A longitudinal study of climate change news in US newspapers (Boykoff 2007a) illustrates the power of expert news sources in framing risk in climate change. While journalists balance news stories with the opinions of opposing experts, news narrative nevertheless conveys the uncertainty of climate change. Research maintains that the representation of climate change in news complements climate change denial in the US.

Furthermore, the importance of acknowledging diverse stakeholders in environmental issues is evident. This is because news media also contribute to the promotion of a pluralisation of experts. According to Tulloch and Zinn (2011), the media also illustrate diverse explanations of risk, which are not limited to the expert. Cottle’s (1998b) criticism is that it is ambiguous whether the representation of risks are granted to define equality in society, or whether the definitions of risk are dictated by experts’ knowledge and experts themselves, who engage in radicalising modernity, such as scientists and public relations

officers. He points out that the area of “relations of definitions” is the crucial one; an example of this is the interaction between sources and the media in representing risk.

Regarding the impact of climate change, environmental risk is not limited to specific areas. Conversely, climate change effects are global, bringing extended participators in climate change discourse. Beck (2009b, p.4) mentions that a characteristic of risk in modern society is “...global risks open up a complex moral and political space of responsibility in which the others are present and absent, near and far, and in which actions are neither good nor evil, only more or less risky. The meanings of proximity, reciprocity, dignity, justice and trust are transformed within this horizon of expectation of global risks...”. Due to this phenomenon, news media also engage with diverse international institutions which are collaborations of nation states, for example, the IPCC and UNFCCC, which represent “globalisation from above”. Additionally, there are international alliances or transnational movements, which represent “globalisation from below”, influent on the representation of risk in climate change in news discourse (ibid., 2009). Therefore, this thesis’s research is conducted to investigate the relationship between news media and the aforementioned powerful institutions, which is analysed from news related to climate change.

Further than the power of the expert and extended news sources whose definitions of risk in climate change dominate in news discourse, the interpretation and communication of audiences about environmental risk are crucial in the emergence of public discourse as a whole. Allan (2002) and Petts et al. (2001) indicate that news media are not the only agents who are involved in the dynamic process of representing the reality of environmental risk, pointing to the importance of non-journalistic spheres, not least fictitious representations of environmental crises in the entertainment media. Environmental risks are defined in public discourse from the perspective of various actors across the breadth of the media, typically in contrary, sometimes contradictory, ways. Importantly, the significance of the news media in shaping individuals’ perceptions and interpretations of risk must be demonstrated rather than simply assumed.

In sum, the mentioned literature underlines the necessity of clarifying meanings of climate change in modern society. The understanding of how the climate change issue is represented in society can reveal how people perceive their relationship to the environment

in a particular society. Since climate change is a multidimensional issue, it allows extended disciplines and actors to be engaged with climate change discourse. Importantly, the analysis of news accounts contributes to identifying truth-claims and discursive struggling embedded in public discourse about environment. In consequence, the power structure that regulates environmental practice in society can be disclosed. The next subsection demonstrates theories and concepts that help researchers engage the analysis of news related to climate change within the context of Thailand.

2.4 Locating climate change in Thailand

Thailand has engaged with global collaboration to reduce greenhouse gases since the activation of the Kyoto protocol. Recently, the country has ratified the Paris agreement and pledged to reduce its emissions by 20% unconditionally by 2030 relative to a business-as-usual model. Further emission reduction up to 25% is conditional on international financing (see the Intended Nationally Determined Contribution and Relevant Information, UNFCCC 2015). Therefore, climate change is advanced by diverse actors in society. Importantly, news media play a part in “recontextualis[ing]” (Beck 2009) the meaning of climate change in Thai society. In order to clarify social and cultural contexts of Thailand, related norms and values about environment in Thailand are provided as follows:

Despite the fact that Thailand is an industrial country, the nation values highly its roots in agriculture. The perception of Thais to the richness of natural resources in their land reflects the Thai idiom, “There are fishes in the water. There is rice in the fields.”². Due to the advantages in geography and tropical climate dominated by monsoons, households historically rely on foraging and agricultural activities. Although in the present day, the economic growth of Thailand relies on the industrial sector; 60 percent of the total population is working in the agricultural sector. Nevertheless, the agricultural sector acquired

² The idiom; ในน้ำมีปลา ในนามีข้าว (Nai nam mee pla nai na mee kao) expresses the idea that the country is rich with natural resources and good living conditions. People can gather food freely from forests, land, and rivers. This idiom is generally used in narratives that portray the living condition of Thais before the modern era. The idiom is comparable to; ‘Land of milk and honey’ in the western context.

merely 12.3 percent of overall GDP in 2012. Thailand was the second largest rice exporter in 2016, earning \$4.4 billion.

In terms of culture, Thailand has been influenced by three major religions, namely Animism, Theravada-Buddhism, and Hinduism. As a result, belief in a number of gods whose superpowers protect crops' yield and worship rituals, are sustainable in society. In the present day, the shrines of gods and goddesses, such as the goddess of water and goddess of land³ are in daily service. Moreover, doctrine has significant influence on social values about nature. The idea of "moderate living" in Theravada-Buddhist doctrine, which is generally understood as maintaining self-sufficiency in life, praises harmony living among nature. Therefore, over-consumption and over-commodification are perceived as "sins" in Thai culture.

In relation to the concept of nature, the term "environment" or "สิ่งแวดล้อม" (Sing Wad Lom) in Thai is a contemporary concept that emerged during the transformation of Thailand's economy from an agricultural to an industrial base. Similar to other developing countries, Thailand has accelerated its economic growth since 1972. The third National Economic and Social Development Plan (1972-1976) aimed at regenerating the country by marginalize the marginalize of natural resources all over the country. However, ten years later, the National Economic and Social Development Board changed the direction of the policy. The fifth National Economic and Social Development Plan (1982-1986) mentioned that regarding previous regeneration of the country, large amounts of forest areas had been trespassed on and the industrial zone had been developing widely. Subsistence agriculture activity that was the basic occupation of Thais was transformed into commercial farming to supply industrial activity. This radical change in fundamental living of Thais resulted in a number of issues, namely, inequality of income distribution between urban and rural areas, population mobility issues, pollution, garbage management issues, and deforestation. The rapid change to capitalism during the '70s-'90s reflects the negative side of marginalized, as well as environmental dangers which are side-effects of industrialization. In

³ Goddess of land or พระแม่ธรณี (Pra Mae To Ra Nee) and goddess of water or พระแม่คงคา (Pra Mae Kong Ka) are the goddesses from Hindu mythology. Hindu mythology has influence on high-culture in Thailand, especially the etiquette of the Siamese royal court. The beliefs in sacred spirits that protect nature also associate to native Animism mythology. Native to the South-east Asian, whose life depends on foraging, has worshiped female spirits as goddesses that have superpowers to protect natural resources such as water, land, and plants.

repercussion, the first environmental management academy in Thailand, which adopted modern disciplines in their curriculum, was established in 1999 at Kasetsart University (Kasetsart University 2015).

Regarding this background, Thailand is a country where a number of ideologies contradict and contest each other in public discourse of environment. To elaborate, while the influence from religious beliefs and its culture praises conservatism in environmental issues, the necessity of maintaining their industrial productivity and competitiveness has induced capitalism. In addition, the country has an obligation to encourage sustainability in energy sources as it has pledged to the Paris agreement. This global pressure has become the other factor in the emergence of modern environmental ideologies in the country. Accordingly, this thesis's research, which aims to analyse news related to climate change, can contribute to the clarification of discursive practice in society where the tension between ideologies is sustained. Furthermore, empirical data can advance over understanding of risk society by clarifying the fragments in the definition of climate change taking place in developing countries.

This thesis's research employs two major theories, namely, risk society and the concept of mediascape to underpin the context of Thailand and climate change as a global issue. Arguably, these theories assist comprehension of the relationship between climate change discourse and its implication to the context of Thailand, which can be identified by the analysis of news accounts. The following sub-section briefly provides the core concepts of the mentioned theories.

2.4.1 Risk society

Risk society (Beck 1992) explains paradoxical circumstances in modern society, in which science knowledge and technology are promoted to increase productivity in capitalisation, simultaneously bringing negative consequences to its society. Moreover, these side effects of modernisation, for example, climate change and radioactive waste, seem uncontrollable; therefore, humans are facing uncertainty about the future. This situation is called "reflexive modernization" in the theory of risk society. Beck (1992) indicates that "*The more and better knowledge often means more uncertainty*" (ibid., p.5).

Furthermore, the danger that has been emerging in modern society is not limited to one locale. The effects can rapidly spread globally. By this, everyone and every nation is facing a common hazard in risk society. This mutual threat conversely embraces nation states together. This situation can encourage an atmosphere of cooperation among nations to solve a number of problems ranging from politics to environment. Three phenomena in the reflexive modernisation are 1) society becomes an issue and problem for itself: global dangers produce global mutualities and a world public sphere; 2) the perceived globality of the self-endangerment of civilisation triggers a politically mouldable impulse towards the development of cooperative international institutions; 3) the political boundaries come to be removed (Beck 2009, p.20).

The impact of risk on a global scale is presented as “staging of the reality” (ibid., p.10). Since consequences from destruction of ecology and social systems are greater and difficult to predict with scientific knowledge, society is struggling to comprehend its future. This situation leads to advancement of virtual reality which is performed to describe the opportunity of future catastrophes, to validate the future events 31arginalized at present. It is mentioned that:

‘Staging’ here is not intended in the colloquial sense of the deliberate falsification of reality by exaggerating ‘unreal’ risks. The distinction between risks as anticipated catastrophe and the actual catastrophe force us instead to take the role of staging seriously. (Beck 2009, p.10)

Accordingly, the individual relies on social assumptions to make sense of and presume risks in modern society. Hendel (2008), Beck (1992, 2009), Strydom (2002) and Giddens (2011) agree that risk is socially constructed and is concerned with the possibility of catastrophe occurring in the future. By this, the notion of risk society intends to raise questions about institutional actors that own the power to construct the realities of risk in a society, especially experts and scientists.

Anderson (2010) points out that technocratic elites such as scientists, experts, journalists, officials and pressure groups own power over the discourse of risk. In risk society, the dispute between powerful elites is increasing while the “sub-politics of technocracy” continues. Giddens (2011) 31arginalize risks into two different types: traditional risk and new risk. The traditional risk is equal to external risk and the new risk refers to the risk which is manufactured in public discourse in 31arginalized31. Priest (2010, p.208)

emphasises that journalists have the accountability to scrutinise the definitions of risk, which are usually initiated by powerful social institutions. These definitions of risks are the sustenance of power structure in the society. Accordingly, journalists are supposed to provide the public more than merely stick to the “objective” report. This is vital for journalists to acknowledge that institutional stakeholders in environmental issues seem to emphasise particular types of risks and ignore the others. This notion points out the significance of journalism institutions in shaping the definition of risk in the society.

Despite the self-destruction of risk society, Beck (2009) indicates the opportunity to create innovative models, which interact with the different modernities happening around the world, in modern society. Furthermore, the transnational framework of world risk society assists to clarify “*the glocal*” (ibid., p.15) tensions, which means the worldwide extension of unsatisfied outcomes produced in modern societies, that are unable to be resolved within national politics. Olausson (2009), and Uusi-Rauva and Tienari (2010) agree that climate change coverage encourages discourse that endorses global collaboration in climate change mitigation. However, the actor who holds responsibility for the climate change problem is still limited within local and national domains. Concerning this thesis’s research, this notion contributes to frame the questions toward representation of risk in climate change in Thailand. This thesis’s research thus pursues the examination of whose definitions of climate change are prominent in environmental debates in society. Also, from which aspect, either from a local or global dimension, climate change is defined against the backdrop of distinct culture.

2.4.2 Mediascapes and the meaning of climate change

This thesis’s research aims to explore discursive practice in news related to climate change, particularly of journalism in Thailand. Since climate change is a global issue, this study employs the concept of “*Mediascapes*” (Appadurai 1996) to assimilate the cultural impact of climate change on the environmental claims appearing in Thai society. The concept of “*Mediascapes*” concerns 32arginaliz media that endorse multiple representations of reality. The reality in a society that previously anchors to its location has become one of convergence. The reality from diverse cultures can be combined together from capability of technology, conglomeration, and constructed content. Finally, mediascapes contribute to the emergence of global cultural flow.

Edwards (2011) mentions that the power of global cultural flow is amplified by the media transfers, and exchanges multiple discourses in the global arena. This results in the emergence of a dominant discourse and a marginalized discourse which are dialectically sustained in one culture. This competitive field of discourses allows people to identify themselves with the transferred context that is not anchored to their actual location. Arguably, the identity of groups and individuals is possible to position together as an imaginative community which connects local, national and global. In consequence, there is a possibility that social practice does not absolutely belong to normative discourse but alternative discourse can be constructed to justify social practice.

The concept of mediascape helps to illuminate how the realities of climate change, which is a global issue, are transmitted worldwide by international news agencies. Therefore, there are myriads of cultural meanings of climate change in a particular culture. Research shows that the issue is constructed differently by news media across nations, as is the context of social and cultural influences on how climate change is represented in news (Carvalho 2007). A study (Woods et al. 2010) shows that conservative British newspapers employed religious metaphors to disparage scientific data about climate change in their articles. This representation undermines the perspective of human-caused climate change, whereas, Boykoff (2007) shows that newspapers in the USA tend to focus on scientific debates about climate change certainty that has resulted in the bias toward climate change uncertainty. Olausson (2009) reports that Swedish media frame climate change as a certainty and a social problem which requires mitigation policy in multi-level collaborations ranging from national, international and transnational, along with individual adaptation. Moreover, Uusi-Rauva and Tienari (2010) insist that the representation of climate change solution in UK media is determined by some domestic corporations, which have power in the market.

While climate change discourse in western news content is analysed from diverse perspectives, there has not been the study of representation of climate change in the lens of discourse analysis that can help identify the power of global media over environmental concepts in Thai culture. Because climate change politics has been increasingly intense globally, this knowledge is vital for understanding environmental issues in world risk society. The next section explores the relationship of news media in constructing discourses related to environment that are embedded with particular ideologies.

2.5 News media and the discourse of environment

The representation of climate change issues in news media is engaged to a number of environmental discourses in society (Livesey 2002; Olausson 2009). Arguably, climate change news displays a discursive field of diverse environmental ideologies in the way that they contest each other and reproduce an alternative environmental discourse. Research (Olausson 2009; Uusi-Rauva and Tienari 2010) evidences that news reports about climate change enact transnational perspectives in solving environmental issues. Therefore, discourse of nationalism, which is usually advanced in environmental issues, is challenged by collective ideas in climate change mitigation. However, examining the number of reports and discourses employed in climate change news from each media outlet in the society is vital. Research (Anderson 2014, pp.61-92) shows that social, political and economic factors are crucial to the pattern of climate change reporting globally overtime. Moreover, climate change issues are not merely environmental news anymore. In contrast, climate change issues have been engaged with other news beats, for example, in UK news media where the reporters from diverse news sections are involved in reporting about the environment in their news articles (ibid., p. 69). Due to this engagement of climate change issues with particular environmental discourse, this section exhibits significant environmental discourses, especially sustainable development, which are widely advanced in news media.

The idea of sustainable development was started when the World Commission on Environment and Development (WCRD) published the report, *Our Common Future*. This report aims at a restated perspective on the development of modern society. Due to the destruction of the environment that is caused by overusing natural resources, this new model of development focuses on acknowledging the balance between economic, environmental and social. It was mentioned in the report that

Sustainable development is a process of change, in which the exploitation of resource, the direction of investment, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations. (Brundtland 1987, p.46)

The idea of sustainable development has been adopted into diverse sub disciplines, ranging from science to business and marketing. Therefore, sustainable development is defined along myriads of disciplines, resulting in engagement with diverse discourses in

modern society. In addition, sustainability has been the dominant discourse of environment in modern society. Baker (2016) defines sustainable development as being part of new efforts, albeit tentative, to integrate environmental, economic and (more recently) social considerations into a new development paradigm. There are many versions of this new approach. They are united in their belief that there are ultimate, biophysical limits to growth. This challenges industrial societies not only to reduce the resource intensity of production (sustainable production) but to undertake new patterns of consumption that not only reduce the levels of consumption but change what is consumed and by whom (sustainable consumption). This creates the conditions necessary for ecologically legitimacy development, particularly in the Third World (ibid., p.7).

Since sustainable development is a broad concept that is integrated into a number of disciplines, some scholars (Jamison 2003; Castree 2010; Giddens 2011; Isenhour 2012) problematise the idea of sustainable development. While sustainability means a continuity held in balance, the meaning of development signals dynamic change. This contradiction in discourse leads to an ambiguous meaning which can be used by different stakeholders for ideological advantage.

More specifically, Dryzek (2005) and Giddens (2011) agree that sustainability discourse shows common ideas that compromise opposition to anti-growth and pro-market ideologies. In this sense, sustainability discourse can encourage the sense of collaboration from stakeholders in society. To illustrate, Livesey (2002) states that environmental issues in a capitalist society are dominated by the discourse of commercial and economic interests. This values unlimited growth, consumerism and economically “rational” decision-making. Conversely, environmental conservation is characterised as emotional, non-scientific and politically embedded. This discourse is also shown in climate change news reports. Livesey (2002) continued to argue that new hybrid forms of eco-efficiency and new subject identities and ideologies of responsibility capitalism are the outcome of discursive struggle in the mass media realm.

Regarding this notion, environmental discourse is complex and depends on social and cultural aspects. Since this thesis’s research problematises the representation of climate change in news discourse, cultural and social aspects are vital for analysing environmental news in Thailand. Dryzek (2005) suggests that the fundamental level of analysis is on the

ontology that exists in the context, for instance how “nature” is described in each culture, and what people think of the existence of nature. The second level is analysis of natural relationship which means how people basically relate themselves to the environment and what original bond between the social and environmental is. The third level specifically deals with the agents and their motives in social practice related to environment. Ultimately, the examination of how environment is represented regarding narrative style, metaphor and rhetoric.

Concerning Thai culture, Buddhist economics, which is the systematic study of how to attain given ends with the minimum means, comprises alternative discourses of environment that this thesis’s research addresses. Buddhist economics focus on a combination of livelihood and minimalism:

The optimal pattern of consumption, producing a high degree of human satisfaction by means of a relatively low rate of consumption, allows people to live without great pressure and strain and to fulfill the primary injunction of Buddhist teaching: ‘Cease to do evil; try to do good’. (Schumacher 1973, p.62)

In this light, polarising of environmental ideologies potentially takes place in Thai society. Arguably, while sustainability discourse is the global norm, Buddhist economics are sustained in Thai culture. This polarisation posts the question of news discourse in climate change issues that is the core of investigation in this thesis’s research. Importantly, news is perceived as being accountable for establishing environmental reality for society. However, news content is rather institutionally constructed and constrained by factors in the production process. The next section demonstrates the political economy of the news production approach and literature that demonstrate implication of journalistic and environmental realities.

2.6 Critical approaches to news production

News media have significant influence on the representation of diverse realities of climate change in modern societies. The power of global media leads to fragmentation of climate change definitions, which are not rigidly anchored to specific national contexts, yet are consistent enough over time to reveal characteristics worthy of analysis. Accordingly, this thesis’s research attends to the operation of news accounts in constructing the realities of climate change in one particular society, Thailand. News embeds dominant meanings of

what constitutes “common sense” about natural and environmental realities, thereby shaping public perceptions, sometimes in decisive ways. Therefore, particular insights from the sociology of journalism are brought into this literature review in order to further our understanding of the diverse factors shaping this process of construction, since news is the “*codification of reality*” (Allan 2011) rather than its simple reflection.

2.6.1 Newswork in capitalisation

Scholars have investigated news media organisational structures in order to better understand how the day-to-day activities of newswork shape news reporting. Manning (2001), for example, contends that news media structures are symbolic resources and capital resources that benefit the power of elite people in accessing and controlling media’s content to maintain their power in political debate. The competitiveness of the news media market induces news organisations to develop production procedures that minimise cost and increase productivity. Therefore, news discourse is not an entire reflection of the truth. On the contrary, it is the result of strategic processes in defining facts of occurrence within specific social settings. This process is influenced by the way that particular sources are selected and prioritised in news narratives. Arguably, the news making process is determined by its structure and bureaucratic routine. Tuchman (1980) illustrates that “the news net”, the practice of either placing reporters or news desks at potential locations in accessing information, accommodates journalists to obtain the facts of the occurrences quickly. Three criteria which determine the working of the news net are geographic territory, organizational specialization and topical specialization.

In consequence of the news net, the making of news concerns tacit knowledge of newsworkers rather than precise procedures in newsgathering. To emphasise, newsworkers use their experience to generalise the methods of obtaining facts from news sources. It is mentioned by Tuchman (1980) that

On this basis of the experience, identified as arcane knowledge implicit in news judgement, news workers make three generalisations: 1) Individuals must prove their reliability as news sources 2) Some individuals, such as committee heads, are in a position to know more than other people in an organisation 3) The significance of either statement or no comment must be assessed according to the newsworker’s knowledge of institutional procedure (ibid., p.93)

Accordingly, news production is a bureaucratic process. The news net reflects a social order which is imposed into news content. Journalists accept the authority of official

sources as a fact because of their positions in organisations. This presupposition reduced the investigative process. In addition, journalists may quote the oppositional sources in news stories to maintain a balance of facts (Allan 2011). In relation to this, Cottle (2000) and Manning (2001) point out that news sources can influence news content by both structural pressure and the limitation of routine production, as well as the instrumental pressure or the editorial commentary by sponsoring pressure.

Furthermore, the dispersal of the news net accommodates routinisation in newswork. Allan (2011) indicates that newspapers need to ensure sufficient stories on news pages. The routine of news production thus reduces the procedure of fact verification, especially in hard news that depends on timely quality. In relation to the necessity to chase the deadline and efficiency in news production, the tendency is that news content is produced from “information subsidies” (Gandy 1982) that are supplied by the powerful institutions. The tendency of newsrooms to rely on the information subsidies has been criticised by scholars, who have argued that the phenomenon correlates with less investigative reporting, for example, in the UK press (Manning 2001; Lewis et al. 2008; Williams 2015). On the contrary, the newsrooms “cut and paste” content from press releases of institutions to incorporate into their news stories. This is what has been called “churnalism” by Davies (2008). Moreover, research (Forde 2013) shows that wire news agencies have become the “primary source” from which online newsrooms copy news stories disseminated by wire news agencies to publish on their own sites. Importantly, Forde (2013) evidences that news stories published by wire news agencies are in fact subsidised by particular public relations departments of the institutions. Therefore, the impact of institutional sources on the news production process is far more than merely direct public relations activities, for example, releasing press kits and organising press conferences. This mutual relationship between institution sources and the newswriters seems to increasingly enhance the bureaucratic workflow in newsrooms, and is criticised because “news changes very little when the individuals who make it are changed” (Golding 1979, p.127).

Although these notions reflect that newswriters have a little room for interpretation, there are some situations where journalists can utilize interpretative skills such as when new technology arrives (Manning 2001). Researchers need to acknowledge journalists as social actors who are able to interact with their social environments distinctively (ibid., 2001). The key issue is to what extent that news organisation structure allows them to negotiate with

particular barriers and act creatively. In relation to this, it is vital to investigate the reasons behind the existence of this rigid news organisation structure.

2.6.2 Typification of news

Newswork further represents the reality in society with arranging facts into particular structures of news narratives. The structure of facts in the news story is attributed to the emergence of occurrences. This “typification of news” (Tuchman 1980) is constituted in practical problems of newswork. Newswriters impose order of facts, information, and sources gained from the newsgathering process. By doing this, the complexity of occurrences is reduced to be manageable for news reporting. It is mentioned that

typifications of kinds of news draw upon the way occurrences happen, not upon what is happening. The typifications are only relatively content free, because some sorts of occurrences are likely to happen one way while others have a different temporal rhythm (ibid., p.39).

Despite the fact that typification of news responds to efficiency in newswork, journalists are supposedly inclined to a tacit knowledge in separating two distinct types of news story, so called hard news and soft news. While journalists assign “hard news” to important matters in society, soft news is presumed to consist of lighter stories about human life. Therefore, the typification of news influences the way that journalists decide the newsworthiness of occurrences by using their experience in news organisations (Allan 2011). In other words, journalists learn the language of news by accumulating experiences in the discipline until newswork becomes “common sense” to them. Accordingly, newswork is the discipline that is involved with using journalistic norms to evaluate and reflect the truth in society. At the same time, however, news content does not entirely reflect absolute truth in society. The facts portrayed in news stories are the products of journalistic norms, namely the structure of newswork and news narrative, combined with reality in society. It is stated that “you cannot learn, through ‘common sense’, *how things are*: you can only discover *where they fit* into the existing scheme of things” [original italic] (Hall 1977, p.325).

In terms of climate change news, research indicates that misleading representations may become embedded in news production conventions. Environmental journalists operate under several constraints that accrue from journalistic norms and values. Ordinarily, those events with perceived high impact on the current situation will likely ensure newsworthiness, which is more attractive to news editors than hard, scientific stories (often regarded as too

complex for audiences, who may find them boring). Climate change, in particular, does not lend itself to straightforward news narratives, not least because its cumulative consequences are unforeseen and complicated. By this rationale, climate change issues frequently fail the test of newsworthiness, thereby having limited opportunity to appear in the prime coverage, compared to other environmental topics, such as natural disasters where dramatic conflict occurs (Cottle 2000). Not surprisingly, the number of investigative news reports in climate change correlates with the experience of journalists in covering the issue. While climate change issues are framed with scientific aspects widely, Carvalho (2007) suggests that the experience of reporters and their familiarity to news sources in climate change issues can help them frame climate change issues in the politics of climate change aspects.

2.7 Challenging of environmental news production

This section demonstrates that particular factors take place in news production processes which challenge environmental journalists. This issue pertains to the research questions that focus on examining journalistic factors which influence climate change representation. Allan (2011) points out that reporting news is the process of encoding the reality into the information that answers to the journalistic norms or news discourse. In this process, there is some information that is excluded and some which is included in the news discourse, for example, voices of groups that are included or excluded from news narratives. Also, the news report is the process that embeds particular facts that are taken for granted as a truth by reporters such as when reporters obtain information from news sources. Fundamentally, the process of news production starts with how newswriters “frame” the event into particular aspects. Here, the concept of framing is needed to be discussed before exploring other essential factors that influence particular challenges in climate change newsgathering. Goffman (1974, p.21) explains that framing is the “schemata of interpretation”. This refers to how individuals make sense of their environment and interpersonal interactions. The realities in the social world are located, perceived, identified, and labelled differently by individuals. In this case, words are like triggers that help individuals to negotiate meaning by assessing and evaluating with cultural beliefs and worldviews. Entman (1993) argues that frames can shape how an individual and society see a problem, identify its causes, morally evaluate the situation, and propose a remedy to the problem. Further description of framing by Reese (2001, p.5) agrees that framing functions

as “organizing principles that are socially shared and persistent over time, that symbolically to meaningfully structure the social world”

In terms of news media, Entman (1991, p.7) argues that news narratives can encourage particular frames. Due to specific properties applied in the news stories, such as key words, visual images, metaphors, symbols, and names given to people, individuals are encouraged to perceive and think about events that help to develop particular understandings of those events. He also argues that framing makes some ideas in news stories more salient than others, while making some ideas virtually invisible to an audience. The process of framing in a newswork starts from the editorial decision to publish and place news stories in specific news sections.

Nisbet (2010, p.51) points out that climate change issues in news media have become problematic because of particular frames employed in the news narrative. He argues that the news failed to connect with the values and perceptions or that it lacked significance to its audience. Therefore, climate change issues in news are reframed as “Pandora’s box”, “uneven economic burden”, or “religious responsibility” rather than green investment, green collar work, and public health. In order to communicate about climate change, one needs to draw on repackaging around core ideas and values that resonate with the background of the intended audience, while remaining conscious of the need to propagate scientific knowledge. This is because, first, people tend to use mental shortcuts to make sense of complex scientific facts instead of paying attention to scientific evidence and policies. Second, individuals rely on news sources to confirm their beliefs and values. Third, people who lack strong interest in climate change possibly have selective attention to diverse media that support their presupposition or to entertain themselves.

Furthermore, there are particular challenges in environmental news production that relate to the way that environmental issues and climate change issues are framed by newswriters. Three challenges embedded in the news production process are demonstrated as follows:

2.7.1 Journalistic norms and the truth in environmental news

Newsworthiness is vital to news reporting. Journalists thus tend to frame the occurrence into a perspective that has enough impact on society. It is argued that news

concerns the *event*, not the underlying condition; the *person* not the group; *conflict*, not consensus; the fact that “*advances the story*”, not the one that explains it (Gitlin 1980 cited in Allan 2011, p.76).

Manning (2001) argues that the concept of environment is a social construction which is circulated by the mass media. Newsworthiness in environmental issues, therefore, is emphasised from the perspective of editors and journalists and the process of newswork. Allan (2002) maintains that environmental news is usually reported as bad news. An alarming tone is also employed by news media’s reporting of environmental news. In relation to the attempt to emphasise newsworthiness, environmental news that is reported in hard news stories is usually event-oriented, in order to increase its timeliness. As a result, news content does not provide sufficient context in environmental issues (ibid.). This can be seen from the presentation of conflict news value in environmental stories. It has been pointed out that climate change issues are presented globally as conflict stories (Jaspal and Nerlich 2014; Olausson 2009; Farbotko 2005; Kaewthep 2013a). Newspapers tend to focus on the struggle between parties, for example, government vs citizen, power industry vs community, developed country vs third world country. Moreover, climate change risk is framed as a fallacious concept which is triggered by politicians, national authorities such as power plants, and energy companies. This narrative is similar to other environmental news that tends to be framed as conflict stories.

Furthermore, the journalistic norm of objectivity influences the representation of environmental issues, since ‘objectivity’ in journalism does not equate with ‘objective reality’. In terms of journalism, the idea of objectivity is taken for granted by employing balanced reporting (Tuchman 1980; Manning 2001; Allan 2011). This attempt to reach a balance of news stories results in a misleading of environmental issues. One study shows that journalistic conventions in balancing reports could amplify public confusion resulting from the scientific uncertainty of climate change (Boykoff 2008).

2.7.2 News narrative

Environmental news is also shaped by journalistic writing conventions. To analyse environmental news, understanding of news narratives assists in identifying particular ideological discourses embedded in news. Harris (1997) indicates three approaches to environmental issues employed in news. First, environment is reflected as a human story that

is full of fearful and emotional tones. Second, the news story portrays power and economics. The last one is narrative which focuses on environmental damage triggered by the failure of science.

Similarly to other environmental issues, climate change news coverage highly focuses on catastrophe stories. Dramatized strategies are employed to present climate change effects, for example, religious metaphors, and elaborated explanation of extremely dangerous and frightening images are overused in narration. In relation to this, Woods et al. (2010) suggest that adaptive actions such as “green behaviors” are represented as sacrifice and atonement in climate change coverage. Research reveals that climate change news reports tend to diminish scientific frames and provide limited knowledge of anthropogenic climate change (Tillinghast 2013; Woods et al. 2010; DiFrancesco and Young 2011; Young and Dugas 2011; Boykoff 2008; O’Neill 2009; Dirikx and Gelders 2010). Moreover, DiFrancesco and Young (2011) found that journalists lack literacy in using images to present climate change, despite their freedom in selecting. According to this, positive icons of climate change, such as green technology and the attribution of causation, appear in a small number, while images utilised in news stories convey instead emotional and moral senses. Nonetheless, O’Neill and Hulme (2009) argue that utilizing non-expert symbols and icons, which tend to enact sympathy, encourage greater engagement of people with climate change, compared to expert icons which evoke helplessness or boredom. Audiences tend to perceive that expert icons are unrelated to daily-life and can be too complex to understand (Moser and Dilling 2007).

2.7.3 The power of news sources

This thesis’s research highlights the relationship between institutional news sources and journalists that can affect the representation of environmental debate around climate change issues. However, the complex relationship between news media and their sources is not easy to examine. Despite the difficulty in evaluating the relationship between news media and sources, it is safe to say that news sources own significant power in the way that news stories are shaped by journalists. Studies focused on the relationship of institutional sources and news media indicate that political economy is a fundamental factor that drives the influence of institutional sources in news content. The ownership of the media firms, their business structure, and the commercial-driven nature of the news media play their parts in enhancing the power of institutional news sources. As a channel that provides public

information, the news sphere is thus vital for building public opinion toward particular issues in society. Therefore, these powerful institutions, namely, the government, the experts, and the corporates attempt to manipulate news agendas and news framing. A propaganda model (Herman and Chomsky 1988) proposes that advertising income and the reliance of news media to authoritative news sources are two of the five filters which work together to increase the power of institutional news sources over public opinion in the US. The reliance of news media on authoritative news sources is also mentioned by Gandy (1982). In order to reduce production costs in the newsroom, journalists tend to rely on the prepared information disseminated by the institutions to produce a news story. This “information subsidy” is defined by Gandy (1982, p.61) as follows:

“An information subsidy is an attempt to produce influence over the actions of others by controlling their access to and use of information relevant to those actions. The information is characterized as a subsidy because the source of that information causes it to be made available at something less than the cost a user would face in the absence of the subsidy...” (ibid.)

Accordingly, it can be seen that the market-driven nature of news firms is the reason behind the way that the newsrooms include subsidy information from the institutions to their news agendas, especially the information subsidies from the officials and the powerful institutions. Either producing their own investigative news stories, which consumes time and budget, or choosing to drop the subsidy information, can be costly because the newsrooms need to compete with the other news outlets.

In relation to the information subsidies, the establishment of public relations departments in the government agencies and the flourishing of public relations firms worldwide allow news production to increasingly rely on the prepared information. Herman and Chomsky (1988, pp.19-22) indicate that the information subsidies help the government to maintain the position of “routine” news sources in the news agendas in the US. Similarly, Gandy (1982, p.74) criticises the budget spending of the executive branch of US officials to generate information subsidies such as press release, views, publications, and special pleadings. Since the budget was utilised to generate the information subsidies rather than to operate the entirety of the legislative and judicial branches, the officials can secure media agendas and maintain their control to access the media. However, Gandy mentions that the triumph of the officials derives from both factors, which are the volume of information

subsidies that are regularly sent to the media, as well as the traditional norms of the news values that focus on authority and prominence.

In terms of environmental issues, studies in sociological paradigms evidence that news production processes increase the power of high status news sources and experts in defining modern environmental issues. Since newswork is bureaucratic, journalists tend to presuppose a credibility of facts gained from authoritative sources (Allan 2011). Therefore, the “primary-definer” has advantages in controlling the circulation of media agendas and political information in a society (Cottle 2003a). Moreover, the work of news media shows society’s institutional order (Allan 2011) because of its function to maintain political consensus in reported issues and the hierarchy of credibility.

Regarding climate change news, Carvalho (2007) shows that journalists tend to use science experts as news sources in climate change reports, despite the fact that climate change risk is not limited to one territory and class. It is mentioned that between 1985 and 1987 in the United Kingdom, six of twenty-one climate change news articles published in *The Guardian* and *The Times* mentioned the scientific journal *Science and Nature* as a news source. Similarly, Uusi-Rauva and Tienari (2010) indicate that journalists tend to use high ethos and creditable news sources in climate change news reports to benefit the certainty frame. Carvalho (2007) suggested that this can represent the strategy of rationalisation that the root of the climate change problem can be accessed and solved by science.

Although the idea of a primary-definer usually points to the dominance of authority agents, Manning (2001) argues that business elites can always influence the government. It is important to acknowledge that the power of the elite class is defined by *plurality*. Authoritative sources can struggle among themselves to achieve media access and employ several tactics to spread their information. Moreover, media text is not entirely ideologically sealed by primary-definers but it can reflect fragments of voice from suppressed groups in society. Hallin (1992) suggests that journalists will employ objectivity norms to balance news stories when there is a tendency for the issue concerned to fall in the sphere of legitimate controversy. In terms of environmental news, non-authoritative sources such as environmental movements gain short term access to news coverage by using communicative strategies. Also, business corporations have strategies to ensure media access. Therefore, to

study the primary-definers in environmental discourse, it should be open to wider identifying appearances of social actors in news.

In terms of environmental news, the influences of stakeholders such as business corporations, government and the private sector movement on news coverage do not merely increase the presence of particular environmental agendas in the public sphere; on the contrary, those news sources are capable of lowering the prominence and removing the issue from the scene (Anderson 2014); for example, corporations put their efforts into media relationship management to reduce negative issues that risk harming their reputation (Michael 2001).

On the one hand, relationships between corporations and the media provide mutual benefits in the news production process; on the other hand, marketing relationships between corporations and the media can intervene to shape news agendas. Anderson (2014) contends that news framing processes can legitimise some environmental problems to be perceived as “common sense” in society. Several research studies (Carvalho 2007; Edwards 2011; Anderson 2014) indicate that some news media activate self-censorship when the issue is capable of affecting their sponsors’ reputation. Since advertising incomes are a primary factor in running media businesses, environmental issues affected by big industries are often withdrawn from the media scene or framed in another way. Issues related to environment such as nuclear power, GMOs and climate change are portrayed in news media with the discourses of “progress” and “economic prospects” rather than framed as deep ecological or social problems (ibid.). In addition, there are some findings which indicate the consumption of different news genres that can influence public action in climate change mitigation (Cannon and Müller-Mahn 2010).

During the newsgathering process, news sources are involved in the production process by providing “ready-to-use” information to newsrooms. This influence is caused by deadline constraints and competitiveness in the media industry (Anderson 2014). Employing corporate press releases saves costs and reduces time consumption in news production. Moreover, it is designed to suit journalistic values by providing essential facts and figures. Therefore, press releases may ensure accuracy of news stories, especially environmental issues that are usually complex and loaded with scientific information. In this sense, huge

firms, which have enough financial resources to employ professional public relations practitioners, have advantages to frame environmental news content.

Beyond the preparation of information for press release, public relations personnel are trained to be experts in communication strategy, and are accessible 24 hours a day. This also helps journalists to verify news content and increase media relationships at the same time. They have essential skills such as exploring newsworthiness embedded in corporate issues and customizing the news stories to suit specific news sections rather than merely sticking to the environmental news section. Moreover, tactics in creating special events, which are usually of interest to environmental journalists, are also applied to achieve news coverage (ibid.). Research (Forde 2013) evidences that the information subsidies disseminated from public relations departments of the institutions gain access into the wire news agencies' newsfeeds ensuring the coverage on online news sites. Accordingly, the corporations have far more chances than other news sources in defining environmental risk and influencing the news framing process.

In terms of non-authority sources such as NGOs and civic movements, Manning (2001) indicates that protest groups are usually seen as the arbiters or experts in particular policy fields. However, NGOs seem to be a questionable source for reporters. They are usually criticised for the manipulation of environmental issues to support organizational missions. For instance, protestors might apply symbolic icons and dramatic strategies to justify their environmental claims and gain public attention instead of providing scientific information. In addition, activist news sources earn less news value because their alternative identity is opposite to the dominant value system.

Cottle (2000) indicates that the voices of lay people receive more coverage in local media but only in the way that they are affected by environmental incidents. In other words, news media tend to frame lay people as non-scientific and subjective agents, who are passive and powerless. In regard to climate change news, for example, Farbotko (2005) shows that the voice of marginal people is diminished in news topics related to climate change. The researcher also found that Tuvaluans, an Australian marginal tribe affected by rising sea-levels caused by climate change, are identified as "tragic victims". Therefore, the discourse of adaptation of Tuvaluans and other tribes is marginalised by emphasising the hazards of climate change.

Regarding the context of Thailand, political influence has a powerful impact on journalism in Thailand. The survey in 2017 rated journalism in Thailand as being extremely influenced by governmental politics (Benjarongkij and Boonchutima 2017). Chakpisut (2014) mentioned three major schemes that politicians exploit to sanction news media in Thailand, namely, 1) structural sanctioning: taking over news media businesses by investing in stock exchange markets 2) content sanctioning: news media are forced to impose self-censorship because of sponsorship pressure and 3) encouraging the culture of commodification of news.

Some researchers have examined what they regard to be the unprofessional relationship between news sources and news media which usually take place around political and financial news beats in Thailand. Attaphrapas (2001), for example, reveals the PR strategy of huge organisations. In order to benefit their coverage, unprofessional relationships have become common practice, for example, offering journalists with privileges to buy their products at discount prices, inviting them to “thanks press parties”, giving valuable gifts, organising foreign media trips with pocket money, and paying for stories. Both journalists and public relations personnel claimed that offering small gifts or treating journalists with meals are considered as complementary [สินนี้ใจ⁴ (seen nam jai)], which is acceptable in Thai culture. Journalists defend themselves on the grounds that receiving favourable treatment does not compromise ethical standards. “It is just a pen or mouse pad; this does not make me write something good or bad for them.” (anonymous cited in Attaphrapas 2001, p.137). Some journalists protected themselves by arguing that neither gifts nor free trips can be considered as bribery because public relations cannot force them what to write even when they receive such treatment. Obviously, this reasoning is merely an excuse to avoid guiltiness and to go with the flow in the name of culture.

⁴ In Thai language, the meaning of ‘seen nam jai’ is vague. The word can refer to a small gift or money that one can give to his/her acquaintance as a souvenir without anything in return; for example, in classical Thai culture, offering a free meal to a traveller who arrives or just passes the house is considered to be good manners. Also, the word can be used to describe the gratitude that the host offers to the guest for something in return.

The ethical practice standard of journalism was released in 2007 along with the establishment of the National Press Council of Thailand. The council is a national self-regulatory body of major newspapers in Thailand with a mandate to promote press freedom and professional ethics among Thai journalists. However, it is claimed that the council lacks effectiveness in regulating their members. Moreover, it seems that the council acts in self protection rather than maintaining professional standards of journalism in society. Nevertheless, the relationship between journalists and huge corporations has usually been criticised in public.

In 2014, Thai Civil Rights and Investigative Journalism (TCIJ) exposed leaked documents of the CP Group, the largest conglomerate company in the country⁵. The documents, which detail strategic media plans that are aimed to diverge news agendas by sponsoring targeted news media, evidences controversial media activities between corporate and journalistic celebrities. Journalists, whose columns criticise the company, are targeted for offers of cash and other benefits. The spokesperson of the company denied their involvement in this bribery, and the National Press Council of Thailand appointed a special investigative committee for ethical practising standards of mentioned news organisations and journalists. Nevertheless, the investigation that has been carried out for two years was discharged since the committee declared that there is not enough evidence for accusation. This controversy eventually resulted in public scrutiny towards transparency of the National Press Council (TCIJ 2014).

2.8 Conclusion

This chapter has discussed essential theories and concepts which will prove valuable for constructing the conceptual framework guiding this thesis's empirical exploration of its research questions. The theory of risk society and related concepts clarifying reflexivity modernisation have been employed in this thesis's research to approach the phenomena of

⁵ The Charoen Pokphand Group (CP) (Cha Rroen Phok ka phan) is the largest Thai conglomerate company. Consisting of three core businesses, it operates in agribusiness and food, retail and distribution, and the telecommunications industries with investments in over 20 countries. Founded in 1921, the CP Group currently employs, through its subsidiaries, over 500,000 people with offices and factories worldwide. In 2015, the group has been accused of misconduct relating to slavery for joining in supply chains of fishing boats manned with slaves.

climate change. By this perspective, risks in climate change are approached as “staging of the reality” (Beck 2009, p.10), in which the implication of global news media transforms definitions of risk in climate change into “*glocal*” (Beck 2009, p.15) attribution. This circumstance problematises institutional power in “manufactured risks” in climate change which are portrayed in the media sphere. Moreover, the emergence of new actors who are not governed within nation states, namely “globalisation from above” and “globalisation from below” (Beck 1999), increases complex power relationships in defining risks in climate change in a particular society. Central to this phenomenon is the performance of news media in mediating climate change discourses commenced by particular actors from global and local arenas. In terms of Thailand, it is vital to investigate the power of “*mediascapes*” (Appadurai 1996) which contribute to the meaning of climate change in this developing country. The issues include either “neo-ecological imperialism” (Beck 1999) or the representation of climate change in that increasing collaboration between nation states to solve environmental problems are drawn as the focal points to be discussed in this study.

The chapter has advanced the thesis’s aim to identify and critique particular environmental discourses that are manifested in environmental news, especially climate change issues. Scholars indicate diverse environmental discourses that contest each other in the news sphere. In terms of climate change issues, discursive struggles between nationalist ideology and collective ideas in climate change mitigation is usually found in news narratives. Accordingly, this thesis’s research problematizes discourse of sustainable development and nationalist ideology in Thailand, which is influenced by a Buddhist concept, in the investigation of environmental debates manifested in news related to climate change.

This chapter’s close reading of studies concerned with news production processes in the sociology of journalism has provided an important perspective for interpreting the thesis’s empirical findings. Practicalities in newswork that underpin the representation of environmental issues in capitalist society have been discerned for further investigation. The routinisation in newsgathering and “typification of news” (Tuchman 1980) have been shown to impact on the way environmental issues are framed in news coverage, inviting new issues to be examined in later chapters. Previous research studies related to climate change and environmental news evidences the power of journalistic norms, especially journalistic objectivity and news narrative, to have influence on episodic frames and sensationalise

environmental news and climate change news stories.

The chapter also finally addressed the power of news sources to influence the manifestation and salience of news agendas. Scholars indicate that government officials and scientists tend to be the primary-definers in environmental news. Also, elite news sources have more opportunity in accessing news media. However, the voices of elite news sources that influence public policy in environment are examples of “plurality” (Manning 2001). Therefore, environmental discourses in news texts are fragments of competitive ideologies embedded within the structure of news. Moreover, the influences of diverse news sources to the manifestation and salience of news agenda are not easy to identify in the analysis of news texts. Since news framing tends to legitimise the perception that environmental problems are “common sense”, further investigation about the power of news sources is required to understand tactics utilised by powerful news sources.

Chapter 3

Climate Change Policy and Environmental Journalism in Thailand

3.1 Introduction

While the previous chapter discussed theoretical concepts that contribute to the conceptual framework of this thesis's research, this chapter aims to provide further details about the context in which news related to climate change has been produced. In particular, the chapter demonstrates the relationship between environmental journalism and the practicality of climate change policy in Thailand. The objective is to reflect the power structures that govern usage of natural resources and the relationship of environmental journalism to this issue. This fundamental understanding of the context assists researchers in analysing structural factors that influence the representation of climate change and other environmental issues in Thai newspapers.

The chapter is divided into three main parts. The first two sections discuss the political and economic influences on the boom and bust period of environmental journalism in Thailand. The first part aims to draw a broad picture of climate change governance in the country. Also, the arguments of related sectors to such environmental policies are illustrated to help the reader grasp the perspective to the context that journalism is working on. Moreover, these environmental policies are discussed further in the findings parts, both from textual analysis and semi-structured interview methods. The following section moves to demonstrate development of environmental journalism in Thailand. This section is important in establishing the understanding of the distinctive characteristics and contributions of environmental journalism in developing countries that have social and cultural differences from western countries. Therefore, the section addresses the historical perspective of professional development along with significant environmental cases in each era. Moreover, these environmental cases are mentioned afterwards in the two findings chapters.

Finally, particular studies that underpin the status of climate change journalism in the present day, for example the frequency of climate change news reports and characteristics of news narratives, are discussed. This final section initiates the area of empirical analysis

where this thesis's research addresses the gap left by previous studies in environmental journalism in Thailand.

3.2 Public Policy in climate change anticipation

Thailand's involvement in global climate change anticipation has been prominent since the Kyoto protocol in 1997 until the ratification of the Paris Agreement in 2015. Recently, the country has submitted the Nationally Appropriate Mitigation Action (NAMA) measure to reduce emissions between 7 and 20 percent below projections for 2020. The reduction of emissions will be enacted by increasing renewable energy proportions and improving the sustainable transportation system. In addition, Thailand aims to achieve more in the Nationally Determined Contribution (NDC) with international financial support (United Nations n.d.). According to the World Resource Institution (2017), Thailand emitted 369.4 metric tons of carbon dioxide equivalents in 2013, which equals 0.84 percent of global emissions. The energy sector is responsible for the largest proportion of national emissions, which is 264.6 metric tons of carbon dioxide equivalents. Meanwhile the agricultural and industrial sectors released 67.6 metric tons of carbon dioxide equivalents and 72 metric tons of carbon dioxide equivalents respectively.

In 2009, the Office of Natural Resources and Environmental Policy and Planning (ONEP) and the Ministry of Natural Resources and Environment announced the Master Plan on Climate Change 2010-2019. Suggested by an authority researcher, the master plan indicates key strategies to anticipate climate change, which are 1) developing capacity in climate change adaptation and reducing climate change impact; 2) encouraging emission reduction and increasing carbon sinks based on sustainable development; and 3) integrating climate change management within the country (the Office of Natural Resources and Environment 2015). According to this master plan, specific governmental departments are advised to operate climate change mitigation and climate change adaptation activities. However, ONEP does not have authority to regulate or to assess performance of related governmental departments. Therefore, the effectiveness of the master plan is unable to be determined.

In terms of governance, climate change anticipation is the direct responsibility of the Ministry of Natural Resources and Environment (MNRE). According to the MNRE strategic plan 2013-2018, several projects are planned for climate change anticipation, which will result in a budget allocation of THB 35,980 million (approximately GBP 800 million) for climate change anticipation activities. In terms of climate change mitigation, the plan aims to reduce emissions per capita up to 6.1 tons per capita (see the MNRE strategic plan 2013-2018, p.39). In addition, several projects are categorised as climate change adaptation activities. However, these projects aim at creating databases and knowledge in climate change adaptation rather than empowering communities to be climate change resilient⁶. Moreover, particular projects aim to increase knowledge and participation in consuming green products⁷ that are evaluated based on the number of participants in the project. Accordingly, this information evidences the attempt of governments to address the climate change agenda in public.

Regarding climate change mitigation, the Thailand Greenhouse Gas Management Organisation (TGO) was established in 2008. TGO, which is the governmental body regulated by MNRE, is responsible for managing national greenhouse gas reduction, carbon credit trading, and climate change public communication. Its mission was stated as:

1. to analyse, scrutinise and collect views and opinions on approval and appraisal of authorised projects to further project advancements and the market of greenhouse gas quantity trading as approved;
2. to be an information centre for circumstances on greenhouse gas operations;
3. to make a database about the authorised projects and approved trading of greenhouse gas quantity but in accordance with the policy determined by the National Board;

⁶ The execution of the plan is stated as: 1. preparation and building awareness in order to protect and reduce climate change impact; 2. creating community strategic plans to cope with climate change in the long term, as well as developing networks between government, private sector, and civic movements to serve climate change adaptation; 3. executing policy and related measurements; 4. Developing a national natural resource database that specifies natural resource usage, ecology, and diversity; 5. researching and developing for climate change anticipation; 6. natural resource and environmental management to anticipate climate change, for example, ecology systems, coastal and oceanic resources, ecological diversity, and the origin of pollution; 7. evaluation of climate change anticipation (Ministry of Natural Resources and Environment 2017, p.41)

⁷ The project aims to encourage green product production and consumption (Ministry of Natural Resources and Environment 2017, p.41)

4. to further enhance efficiency and provide instructions to public agencies and private bodies in the operations on greenhouse gas accordingly;
5. to disseminate and conduct public relations campaigns on greenhouse gas management;
6. to promote and support relevant climate change operations (Thailand Greenhouse Gas Management Organisation 2017a).

Accordingly, TGO's mission involves implementing carbon reduction programmes nationally. However, its operations are directed to emission reduction in the private sector rather than the energy sector, which accounts for more than 70 percent of national emissions. As stated in the TGO strategic plan 2018, the goal to increase awareness and understanding about climate change, and participation in climate change management, will be achieved by operating publicity activities and developing partnerships in climate change management. TGO prepared up to THB 65 million (approximately GBP 1.4 million) for the period 2018-2023 to serve its purpose of public communication about climate change and public relations. Key performance indicators for these publicity activities are mentioned in the TGO strategic plan:

- 1) 550,000 people gain knowledge and understanding about climate change from social media and news media;
- 2) 15 publicity activities are executed;
- 3) 150 organisations participate in activities (Thailand Greenhouse Gas Management Organisation 2017b).

However, it is not clear what kind of activities TGO claim to employ in order to increase public knowledge of climate change. According to an interview with the directors of TGO (Asunchai 2014), training and workshop sessions with local governance bodies nationwide and producing climate change curricula for primary schools are mentioned as on-going publicity projects. In terms of news media targets, TGO executed several media trips aimed to educate journalists about climate change effects in local areas. It was mentioned that TGO aims to reach at least 80 percent of news media and can communicate climate change issues correctly during 2019. This ambitious plan requires a systematic evaluation scheme to claim their success in increasing climate change knowledge as stated in the TGO strategic plan. However, the execution of the plan that is not disclosed to the public is still ambiguous. Since news media and social media are uncontrollable media, it is not possible to ensure what kind of information is distributed via the media. In terms of controlled media, the advertisements of TGO were published in daily newspapers. Nevertheless, these articles promote the success story of TGO rather than providing climate change knowledge.



Figure 3.1, Two advertisements of TGO published in the *Bangkok Post* newspapers 30-31 October 2015, (Appendix 1-2).

In relation to climate change mitigation, emissions from the energy sector are particularly mentioned in the statement of the Prime Minister. It is stated that the government aims to increase renewable energy to compensate for 25 percent of fossil fuel within 10 years. Several schemes have been planned to implement this, such as developing convergence industries, encouraging efficiency in energy consumption in buildings and appliances, encouraging clean energy development to solve global warming, as well as raising awareness of saving electricity in all sectors (Ministry of Energy 2016). Moreover, the intention to increase the renewable energy proportion is mentioned in the Alternative Energy Development Plan;

greenhouse gas emission caused global warming which is an urgent issue. The global arena is seeking to control and measure emissions. In future, trading sanctions should be widely implemented. Although it has not affected Thailand yet, the development and promotion of renewable energy should be encouraged. One of the policies is to reduce greenhouse gas emissions which is a good start in driving Thailand to become a Low Carbon Society. In the global arena, we would like to make Thailand a determined country in utilising renewable energy (Ministry of Energy Thailand 2012).

These official statements evidence that global pressure has a major impact on the national direction of energy policy. Therefore, the National Energy Conservation Plan is committed to reducing carbon emissions from power generating processes equivalent to 76

million tons of carbon within ten years and increasing renewable energy by 25% of the overall capacity of power generation.

Nevertheless, economic growth is the main concern for the Thai government. Since the industrial and service sectors generate 39.2 percent of its GDP (as of October 2017), energy prices are vital to maintain its competitive edge in the market. Energy production in the country has relied on natural gas from the Thai Gulf and imported from Myanmar. Natural gas accounts for 70.51 percent of fuel supply and the rest is a combination of coal fuel, renewable fuel, and hydroelectric power plants as illustrated in figure 3.2.

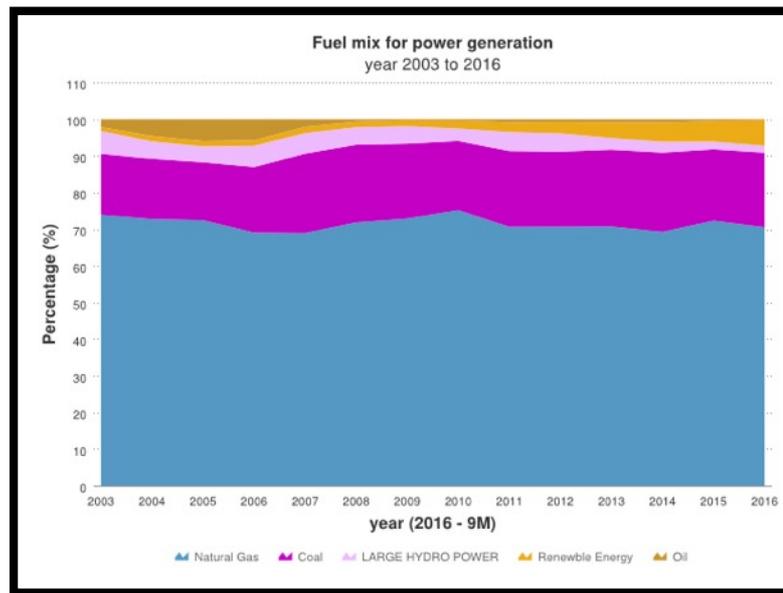


Figure 3.2, The proportion of fuel supply in electricity generation in Thailand (Ministry of Energy 2017)

At this point, the Power Development Plan 2015, which is the issue directly related to emission reduction, needs to be discussed here in addition to other climate change policies, since the PDP 2015 is referred to in the analysis parts of this study. In spite of its intention to reduce emissions, the Ministry of Energy has put forward the Power Development Plan 2015 (PDP2015) which proposes building coal-fired power plants in order to reduce dependency on natural gas from neighbouring countries. Two coal-fired power plants, operated by the Electricity Generating Authority of Thailand (EGAT), will use coal fuel imported from Indonesia. EGAT claims that bituminous coal from Indonesia is internationally guaranteed as “clean coal” that produces fewer emissions (Electricity

Generating Authorities of Thailand n.d.). Furthermore, the Ministry of Energy claims that activation of PDP2015 will not affect the emission target of the country. PDP2015 states that:

carbon intensity per unit of electricity, according to the PDP2015, is decreased from the previous version of PDP. This is the result of a national energy policy that is concerned with the distribution of energy fuel. In addition, the proportion of renewable energy that will replace fossil fuel is increased. Carbon intensity per unit of electricity in 2030 will be 0.342 kgCO₂/kWh, which is decreased from 0.385 kgCO₂/kWh in the previous version of PDP (Office of Natural Resources and Environmental Policy and Planning 2013, p.17).

Although the carbon intensity per unit of electricity seems to decrease as claimed by the Ministry of Energy, the overall emissions released from energy production are, in fact, increased annually as the estimation stated in PDP2015. The statistics show that estimated emission releases in 2021 are equal 93,689,000 tons. The amount of emissions released will reach 104,075 tons in 2036 (Office of Natural Resources and Environmental Policy and Planning 2013).

Accordingly, reducing emissions in the country is pertinent to the capability of the private sector which needs to comply with government policy. Meanwhile climate change adaptation schemes tend to be highly involved with ecological matters. Consequently, academics and civic groups criticise national climate change policies' lack of efficiency because the government adopts misdirection in climate change policy. The expert points out that

They [the government] think that climate change is an environmental problem but I think they are wrong. Climate change is the problem of development rather than the environment. Perceiving climate change as an environmental problem makes them attempt to solve this problem by using an environmental approach. Actually, it needs to reframe our approach to development. It should be started from the context of economics and society (Sanitwong 2015).

Similarly, NGOs and civic movements (Hannarong 2014) stated that climate change anticipation in the country lags behind because of the inefficiency of the bureaucratic system, especially the weak commitment of implementation. Moreover, the officials do not understand the context in remote areas. While the officials are stuck with paperwork and scientific data, people in rural areas utilise local wisdom to adapt themselves to the changing environments. "They cannot wait for official solutions, for which the outcome is not guaranteed" (Budsarin 2015).

Overall, the official statements and statistics brought to light as evidence in this section show a contested debate about climate change at the level of national politics. While the government emphasises publicity of environmental policies to comply with global pressure in greenhouse gas mitigation, particular environmental practices are under scrutiny for lacking efficiency in reducing emissions. Also, this situation reflects the discursive struggle in climate change issues in society, where journalists are crucial agents in the discursive field. This issue poses major questions about the contribution of journalism to climate change communication worthy of further investigation.

3.3 Environmental journalism in Thailand

In order to understand the status of environment journalism in Thailand, this section illustrates the development of the profession since the beginning of the journalistic profession in the country. Three sub-sections outline three phases of critical transformation in environmental journalism that reflect the interrelationship between the profession and social contexts, namely, politics, economics and global pressure, respectively.

3.3.1 Environment news and politics

Unlike the emergence of western journalism, where the profession has been closely aligned with the emergence and development of democratic governance, the emergence of journalism in Thailand was influenced by the interplay of powerful political actors in the country. The idea of the “newspaper” was firstly introduced to society in the 19th century, when the country was an absolute monarchy called Siam. Most of the newspapers are English language, generally published religious publicity and the launch of foreign products. Therefore, the readership was merely limited to the royal court and elite class. Later, the first bi-lingual newspaper called “The Bangkok Recorder” owned by American missionaries was established. However, the newspaper was forced to close down after five years of publishing due to the allegation of *lèse-majesté* and its criticism of Buddhism.

Some researchers (Daradirek 2000; Wongtheerathorn n.d.) claim that the absolute monarchy reign was the golden period of free press. In fact, freedom of the press existed as a strategy to assist the royal family to advance publicly their arguments for conserving their power. During western colonization, for example, Siam allowed free press in the country.

King Rama V and King Rama VI (1853 -1925) thus published their counterarguments to the idea of constitutional monarchy and Christianity advanced by the westerners. It seems that the 18th and 19th centuries marked the beginning of the public sphere in Siam since the initiation of free speech. In fact, newspapers were the tool with which powerful actors in Siam, conservationist vs liberalist, exhibited and contested their discourses. Moreover, there were selected groups in Siam whose freedom of speech was possibly exercised, namely the royal family, the elite class, and the westerner. The commoners were excluded from these rights due to lacking literacy skills.

The revolution in 1932 transformed Siam into a constitutional monarchy. The country was renamed Thailand as it needed to stimulate nationalism. During World War II, the Thai government exploited broadcast systems and newspapers in order to propagandise nationalism. Therefore, the profession of journalism performed a passive role and the idea of a free press did not emerge in society. During the Cold War, Thailand was governed by far right-wing governments. The public broadcast system belonged to the military and a censorship scheme was applied to all publications. Newspapers and broadcast media were prohibited from criticising the government, the Royal family, and Buddhism. Under the regulation of martial law, only trading and business news were allowed to be published. Despite the fact that surviving in such a political context is a challenge for the journalistic profession, a number of significant daily newspapers were established because of marketing influence and operate until the present day, for instance the Bangkok Post, Thairath and the Daily News. In addition, the first journalism school in the country was also established in 1954 at the University of Moral and Political Sciences, which later changed its name to Thammasat University.

During three decades of dictatorship, journalists and editors were detained under suspicion of supporting communism. Critical newspapers were closed down, while others survived by serving the personal interests of dictators. It is recorded that at least 47 journalists were killed (Chongkittavorn 2013b). Nevertheless, significant investigative news, which concerns the emergence of environmental journalism in Thailand, took place at that time. A helicopter crash, which caused the death of 6 members of the elite, brought public attention to environmental conservation. The series of investigative reports revealed a conspiracy of 60 elites, including cabinet members, military officials, businessmen, and a film actress who trespassed on the largest conserved rainforest area, Tung Yai Narasuarn

Wildlife Conservation Park, in order to hunt game. Importantly, this hunting group was led by the cabinet member, General Tanom Kittikachon, and this escalated public resentment towards the military government⁸.

Accordingly, this event was the first time that news related to environment was brought to public attention. The scandal enacted public consciousness of environmental conservation in addition to the romantic idea about the purity and tranquil nature that had previously existed in Thai society (Mitreraman 1995). In consequence, this impact started environmental journalism in daily newspapers more than in magazines. Despite the existence of environmental journalism in other countries, environmental journalism in Thailand emerged from disputes between the elite class and public interest. Regarding this development, environmental news in Thailand tends to reflect conflicts between the state, pressure groups and lay people. Later, the news beat evolved itself to further specialise in other topics such as ecology and agriculture. Nevertheless, the heart of the news beat is anchored to environmental conflict (Samabhuti 1997).

3.3.2 Environmental news in the age of conflict

Since 1980, the approach of environmental journalism in Thailand has moved from conflict between political actors and public interest to the dispute between industries and the communities in the countryside. This has been influenced by the destruction of the environment caused by industrialisation. To elaborate, the military government changed economic policy to promote Thailand as the industrial base of South East Asia. The policy “Turning the battlefield into the free market” reintroduced Thailand as a paradise of heavy industrial investment for international investors. Despite its neighbours, military

⁸ The impact of Tung Yai Narasuarn’s trespassing combined with the accumulated political atmosphere led to an uprising of student activists, supported by the middle class in Bangkok. The protesters included 500,000 students gathered in the heart of Bangkok, calling for the release of thirteen detained students, and demanded the establishment of a national constitution. On the sixth day of the demonstration, national television broadcast the speech of King Bhumibol who demanded the mob to disband. While some students decided to leave the demonstration, armed troops besieged the area and opened gunfire on 14 October 1973. 77 people were shot dead in the massacre, 875 people were seriously injured and a number of people were forced to disappear. Consequently, three military officials who were the heads of government fled from Thailand. Although political power was brought back to civilian government after the massacre, the new Prime Minister and his government were appointed directly by King Bhumibol himself.

governments of Thailand exploited the stability of the political situation, relaxed tax schemes and the provision of cheap labour.

This change resulted in lifting the censorship scheme as a strategy to exhibit a “free press” that could credit the country to global investors. Therefore, the media industry in Thailand started from the need to create economic growth. The flourishing of business newspapers is evidence of the mutual benefit among industrial corporations, the government and news organisations. News bureaux were dispersed into economic related ministries as well as business corporations. Economic and industrial news beats have become major news beats. This is not merely because of their role in shaping the growth of the country but also due to their capability of accessing powerful actors. In this sense, the establishment of industrial news beats in Thailand is different from other democratic societies such as the United Kingdom, where the establishment of the news beat was tied up with the strengthening of industrial unions (Hansen 2008).

On the one hand, industrial growth regenerated Thailand’s economy. On the other hand, it is marked as the “era of conflict” for environmental communication. The growth of environmental news beats in daily newspapers emerges from the industrial era. Mitreraman (1995), Yenmankong (1996) and Noosong (1995) indicate that environmental coverage and related television programmes between 1988 and 1997 had been occupied by conflicting stories between industries and the community. During this decade, many disputes relating to pollution and natural resource management were covered in newspapers. Conflicts about natural resource management, which is a core concern of productivity, usually make the headline news (Samabhuti 1997). Cheunjaichon (2005) similarly shows that 48.90 percent of environmental news in Thailand is about natural resources, followed by 23.25 percent which relates to pollution topics.

During the age of industrialization, investigative journalism in environmental issues has become a focal point for environmental news beats. In terms of news production, the news beat usually earns its value and trustworthiness from whistleblowers because a number of environmental journalists embedded themselves in the countryside to obtain hints. In general, investigating hard facts is the duty of environmental journalists, for example, obtaining evidence from the field and contacting credible sources who can verify data that indicate destruction of the environment. Moreover, in the case of the story having potential

for the front-page, the news editor would allow related news beats such as the industrial news beat to become involved with the newsgathering process. Therefore, industrial journalists generally aim to obtain comments from officials and corporate news sources because they have access to these people. In this sense, there are differences in working procedures between the two types of news beats that have emerged together from industrialisation. While the industrial news beat gathers the data with a top-down style, the environmental news beat is keen on producing the story with a bottom-up approach.

In order to illustrate the impact of environmental journalism, the following environmental disputes, which are mentioned further in the findings chapter of this thesis's research, are highlighted in this section. These environmental cases reflect the involvement of investigative news between 1987 and 1997. Moreover, these cases are advanced by the claim makers to support their environmental practices in public discourse.

3.3.2.1 Mae Moh lignite power plant and air pollution

The Mae Moh lignite power plant is owned and operated by the Electricity Generating Authority of Thailand (EGAT), a state owned corporation. The power plant was the largest power generator in the northern region of the country with a capacity of 2,625 MW. In 1992, the flue gas desulphurization system of the power plant accidentally broke down and caused sulphur dioxide to fume over habitats and agricultural villages. Although the incident was noticed by EGAT, the corporation decided to keep quiet and delayed alerting the villagers surrounding the plant. Consequently, the villagers, especially children and the elderly, were found to be sick from toxic air.

Despite the sickness, EGAT officials denied responsibility to remedy the victims. The situation was brought to public attention by an investigative story published by the *Bangkok Post* newspaper. Research (Phiphitkul 1994) indicates that the news media effectively brought this case into the public domain, leading to central government becoming active in resolving the issue. In other words, news media have power in pressuring the government to act. It was recorded that EGAT had denied replacing the flue gas desulphurization system until the cabinet was ordered to invest.

Nevertheless, some research criticises the fact that the news coverage narrated daily occurrences that merely emphasized conflicts and dangers (Wannapreuk and Sooksai 1998).

On the contrary, knowledgeable information that can assist the villager to anticipate the risk, and long-term solutions to solve air pollution, were absent from news reports. It has been noted that over two decades of investigation in courts of justice, examinations have been conducted between EGAT and The Mae Moh Occupational Health Patients' Rights Network but the case has not been resolved yet. Recently, 14 villagers died from sulphur dioxide toxicity and 130 patients were diagnosed with respiratory tract disorders and cancer (Manager Online 2015).

3.3.2.2 Pak Moon dam protest

The Pak Moon dam project was initiated by the military government in 1967, when the fear of communists was spread out all over the country. It was argued that the project goal was beyond generating power for the north-east of Thailand. Due to the location of the dam situated near the border of Thailand and the Lao People's Democratic Republic, huge investment in the heart of this countryside is considered to be one psychological strategy to defeat the popularity of communists in the area (Fahn 2003; KerdBhoka 2016). The construction of the project was delayed until 1991 due to a number of demonstrations which had taken place since the initiation of the project. Later, the construction started when the government received USD 55 million in loans from the World Bank. The Pak Moon dam was constructed and operated by the Electricity Generating Authority of Thailand (EGAT) in 1994. The dam was built across the Moon river which is a branch of the Mae Kong river, the largest river in South East Asia. Despite the forecast of power capacity at 136 MW, its maximum capacity yields only 40 MW. This poor capacity and the deadly effects to ecology, local culture, and the local economy reflects the failure of the dam (TDRI 2000). It was reported that the changing of the ecological system in the Moon River reduced river biodiversity, such as river fish, herbs and local bamboo. Losing more than 169 species of river fishes affected the community folkways along the Moon River. There were 6,000 fishing families that had lost jobs and had become homeless. While some villagers moved to larger cities to work in factories or construction sites, some villagers headed to Bangkok to protest against the dam, for example, the demonstration "Assembly of the Poor". The assembly demanded EGAT to open floodways to improve the ecological systems in the river as research confirmed.

Since 1997, the negotiations between the Assembly of the Poor and the governments have never been resolved. Although one can say that the instability of the political situation

mainly defers agreement between the groups, the criticism of injustice in water management, which favours the industry and neglects local people, is impossible to deny. The case of the Pak Moon dam has been reported by environmental news beats throughout 20 years of conflict. Journalists claim that the story of the Pak Moon dam and the Assembly of the Poor receives limited public attention because of the latent development of news stories that is the characteristic of environmental news. Nevertheless, the environmental news beat has made significant contributions to the presence of this environmental conflict in the public arena.

3.3.2.3 Mab Ta Phud industrial estate

The case of Mab Ta Phud industrial estate reflects the impact of environmental news in exposing environmental misconduct. In addition, news media raise social pressure that leads to the action of governments. Regarding the Mab Ta Phud case, investigative news influenced related government organisations to accept the reality of dangers from industrial activities, specifically the exceeded level of cyanide and mercury in seabeds in the Mab Ta Phud case. In 1988, the Mab Ta Phud industrial estate was established around the seaside in the eastern region. The industrial estate had been expanded from gas separation plants to crude oil refining plants and other chemical businesses to support the Eastern Seaboard Development Plan. Since 1992, the disputes between the industrial estate and the communities surrounding it have been ongoing. Health issues and lack of fresh water for farming were a particular concern of local communities. Despite a number of appeals made by the communities, the problem was left at local level.

The Mab Ta Phud case reflects that there are several barriers to environmental newsgathering. These barriers are the result of government policies that focus on utilising natural resources for economic growth rather than protecting the well-being of the communities. First and foremost, there are difficulties in accessing news sources and environmental data. Importantly, the power of the industrial sector tends to suppress public freedom of expression. James David Fahn, who is an environmental journalist at *The Nation* newspaper, mentioned his experience in newsgathering about the Mab Ta Phud case (Fahn 2003). Fahn received a fax from an anonymous researcher whose findings proved a dangerous level of cyanide and mercury contamination on the seabed around the industrial estate. Preliminary empirical data he observed from local areas also convinced him of the existence of contamination. In terms of scientific evidence, Fahn was denied access to the industrial estate. Moreover, he found that all official sources in Bangkok denied the possibility of

contamination. Meanwhile, a researcher whose findings point to pollution in Mab Ta Phud had just signed non-disclosure agreement with Unocal, one of the corporations operating in Mab Ta Phud. The agreement came with new research funding and permanently kept the researcher quiet.

However, Fahn managed to obtain the official report of pollution analysis in Mab Ta Phud while he was waiting in the office of EIA for a meeting. The head officer happened to be away when the journalist came in. He decided to scan through some documents left in front of the head officer's room. He found the latest reports and all the essential scientific facts inside. Surprisingly, the secretary of the head officer provided him with copies of reports without noticing their importance. The news story of pollution in Mab Ta Phud was published on the front page of *the Nation* newspaper the next day. Nevertheless, the case of Mab Ta Phud has been continuing until this day. A number of accidents that have caused environmental hazards have been taking place around the industrial estate. While the effects of pollution are obviously shown by the illness of villagers, identifying the polluter who leaked the chemical is controversial. The 124 factories in the 3,360 acres of Mab Ta Phud industrial estate poses a challenge to identifying who is accountable for the contamination.

In sum, these cases reflect the impact of environmental journalism on the dispute between the huge corporations and the communities during the 1980s. In terms of environmental communication in a broader context, the focal point of environmental communication has been shifted to the issue relating to efficiency and justice of environmental management because the flourishing of modernisation and capitalism transformed natural resources into industrial resources (Kaewthep 2013). Regarding this change, people in rural areas widely called for their rights to manage local resources, which comprise their life support system. This era was the rising of the “voice of side effect”, the voice of people who suffered from the latent effects of industrial development, which are difficult to prove scientifically, as indicated by Beck (1992).

During the era of conflict, environmental journalism has grown up with conflict news angles focusing on industrial organisation and citizenship movements (Chuenjaichon 2005). It is not a surprise that the Thai Journalist Association first introduced the Best Environment Conservation News Award at that time. Nevertheless, the voice of lay people in environmental news during this period existed as symbolically meaning to indicate struggle

and harsh environmental situations in rural areas in news reports. This representation is similar to environmental news published in the US and UK where the voice of side effect in news does not contribute to the solution to environmental problems (Cox 2010).

3.3.3 Environmental news after the economic crisis

The economic crisis in 1997 marked another turning point for environmental journalism in Thailand. News organisations adjusted themselves to survive the financial crisis. Duangmanee (1999) indicates that many newspapers went out of business, while surviving newspapers decided to reengineer their structures for cost minimisation. Environmental news sections and their reporters were vulnerable to closure and redundancies respectively. The news desk was closed down in most of the daily newspapers. In addition, major newspapers assigned extended topics to environment news beats, for example, health, education, and technology. Similarly, the broadcast business removed the environmental programme because it is perceived to be a non-profitability programme (Wannasiri 2005). Research (Chuenjaichon 2005) and journalists (Suekeaw 2015) confirm that environmental news rarely gets to the front-page of popular newspapers unless it contains a conflict angle. Likewise, environmental news found in the inner pages tends to relate to soft issues such as lifestyle.

Findings indicate challenges of environmental journalism that contribute to the decline of environmental news in Thailand. Phiphitkul (1994) and Chakpisut (2014) both point to characteristics of environmental news that contradict the newsworthiness concept. Since environmental topics are about daily life and not exciting, they cannot compete with other occurrences in the day. If the topic concerns natural resources and unusualness in society, as well as economic and political problems, this can raise the opportunity to receive greater coverage. An example of this is the stealth logger allegation at the border of Thailand and Burma that related to the corruption of politicians. Samabhuti (2014) expresses that:

Although the editorial team are all concerned that environmental news is vital to society, there is newsworthiness to consider. In the context of Thailand, where internal politics is extreme, political news has received more front-page coverage. This long run of political crises in Thailand has been dominating all communication atmospheres (Kulthida Samabhuti, The Secretariat of Environmental Journalist Association of Thailand, interview, 6 November 2014)

Sponsorship influences the status of environment journalism in Thailand. Duangmanee (1999), Wannasiri (2005), Kaviya (1997) and Klaisuban (2007) confirm the impact of sponsorship on news policy that governs the direction of environmental news. A number of environmental news articles that potentially harm the reputation of sponsors are self-censored in the press. In addition, the influence of sponsors to limit news angles in environmental news and/or to censor investigative news, which reveals the illegitimacy of business activities, is addressed. Instances of this include chemical pollution from industrial plants, national forest trespass, and human rights infringements (Thabtong 2014; Samabhuti 2014; Kamkowitz 2014).

Accordingly, environmental news beats are obstructed from reporting environmental hazards as well as long-term risk reduction. Therefore, society can perceive environmental problems as flashy exciting accidents. Several studies illustrate that the majority of environmental news focuses on conflict angles (Wannapreuk and Sooksai 1998; Wannasiri 2005). The daily situation of conflict in environmental issues cannot bring understanding of the real issue to the audience, nor the solution. Research indicates that environmental journalists perform their role as “informers” but are unable to reach to the “educators” in Thai society (Chuenjaichon 2005). According to Khamvijit (1990), journalists believe that their role is merely to inform the public. Consequently, journalists stick to the writing formula of Who, What, When, Where, Why and How (5Ws 1H) and they are unable to present environmental issues comprehensively. For example, the context of environmental problems that is unobservable was left out of news reports. Finally, environmental news is unable to provide common ground for public education in environmental and sustainable solutions.

Regarding previous findings, politics and economics have an impact on the status of environmental journalism in Thailand. While research indicates that the environmental news sections seem to have disappeared from daily newspapers in Thailand, the *Krungthepturakit* newspaper, a daily business newspaper, had launched its new supplement “*Green Report*” in 2010. In relation to the popularity of launching “Green” issues in international magazines such as *Vanity Fair* (Anderson 2011), the green issue of the *Krungthepturakit* newspaper was claimed to provide an alternative view of green content and environmental issues in Thailand. Accordingly, this thesis’s research includes the *Green Report* in the analysis, in order to investigate the differences between this supplement and other environmental news

in daily newspapers (see Chapter 4). This section thus provides related information about the launch and production of the *Green Report*.

The *Green Report* is a broadsheet supplement issued monthly inside the *Krungthep-turakit* newspaper. The news policy of the *Green Report* aims to establish a new approach to environmental journalism in the country (Thabtong 2014). The editorial team is a voluntary collaboration of reporters from diverse news departments. The diversity of reporters has brought the capability to pursue environmental aspects embedded in extensive current situations. According to the interview, the section editor claimed that reporters who joined the team developed environmental concerns and increased their skills in framing environmental angles in routine newsgathering.

The strategy of the *Green Report* production is to optimise dimensions of environmental coverage. The editors argue that this can facilitate readers to understand environmental issues concretely. Therefore, editorial meetings are sessions of shared ideas derived from the perspective of journalists from news desks. The objective is to produce inclusive environmental news further from mere conflicts related to the environment. Thabtong (2014), the *Green Report's* editor, reported that

The management would like to establish a segment in environmental journalism which includes all voices from government, private organizations, and civil movements, even 'the nobody'. However, the quality of life news section is kept in daily broadsheets to report daily incidents. Conversely, the *Green Report* was established to provide an alternative style of content. We won't focus on the daily situation but we will look at any environmental issues which affect or will affect society. So, we have much freedom to cover any story from an environmental angle. Due to this concept, many stories are possible to report; for example, efficiency of resource management and pollution from industrial plants among others. We have included reporters from economics, energy, educational and lifestyle backgrounds to collaborate in monthly editorial meetings ... The *Green Report* won't go with the flow. Current issues are trendy but superficial. We need the *Green Report* to be the publication that addresses in-depth environmental issues (Saranya Thabtong, the *Green Report's* editor, interview, 12 November 2014).

Accordingly, it can be argued that the *Green Report* is an alternative genre of environmental news. While environmental news in Thailand has been traditionally produced from the perspective and method of environmental journalism, the *Green Report* aimed at exploring alternative newsgathering processes and narratives to extend the dimensions of environmental stories. This initiation raises the opportunity to resolve particular issues in

traditional environmental news such as limitations of newsworthiness and writing structures to present environmental news comprehensively. Nevertheless, it is not clear to what extent would the initiation be successful in the context of Thailand. Moreover, the establishment of the *Green Report* has been criticized by the environmental news editor who has worked for the Thai Public Broadcast Service (ThaiPBS). Tantipitak (2015) suggests that it is merely an attempt to increase sponsorship from business corporations. He states that

since its name is the *Green Report*, the newspaper reports anything that concerns 'green' issues. *Krungthepturakit* is a business newspaper, so the *Green Report* concerns green marketing. Launching the new section means more opportunity to get advertisement and product placement. Therefore, this can support CSR and the green marketing gimmick of their sponsors. It should be looked at in the content...Green news is not environmental news (Vanchai Tantipitak, News Editor, interview, 30 November 2015).

Importantly, this situation reflects that environmental news production in daily newspapers is diversified in distinct newspapers. However, it is not clear what the influential factors to this diversification are. This change can be influenced from both marketing pressure in the news industry and change in social context as a whole. Arguably, the emergence of environmental supplements such as the *Green Report* can be seen as an attempt to support the marketing strategy of a newspaper, as well as the attempt to produce environmental stories that are suitable to modern society. Consequently, it has proven to be controversial in assigning specific genres of news reports such as environmental news vs news related to environment.

3.4 Status of climate change journalism in Thailand

Climate change has become a popular topic in public communication in Thailand. Due to the impact of the Asian economic crisis in 1997 and the global paradigm in sustainable development, environmental management increasingly influences large industries in Thailand to communicate about climate change. This phenomenon is also aligned with the release of the film, "An Inconvenient Truth" in 2006. This section draws on literature that assists in understanding the status of climate change communication and its relation to environmental journalism in Thailand.

3.4.1 Public communication about climate change

Chidtaisong (2010) indicates that the confusion about the science of climate change in Thai society partially relates to Thai linguistic limitation. For example, in Thai, there are no specific words to differentiate “weather” from “climate”. The word, “ภูมิอากาศ” (Pu Mi A Kad), translates as both words. Moreover, “climate change” is translated into Thai as “สภาพภูมิอากาศโลกเปลี่ยนแปลง” (Sa Pab Pu Mi A Kad Lok Plian Plang), which contains 9 syllables and scientific jargon. Public communication thus tends to use the more accessible word that is “โลกร้อน” (Lok Ron), which means “global warming”. Chongkolrattanaporn (2011) indicates that science experts critique that climate change campaigns in Thailand have failed to educate the public about the environment and climate change risk. Despite the fact that climate change’s awareness campaigns were collaborations between governments and private organisations, these campaigns embedded hidden agendas to popularise the organisations or political parties. Similarly, journalists claim that corporate social responsibility (CSR) and marketing strategies of business cause confusion about climate change among the public (Samabhuti 2014). Nakthong (2014) stated that:

the media familiarise “global warming” to Thai society. But the purpose is something else other than climate change education. Thai society is thus inundated with information about global warming (Jakkranat Nakthong, Director, Thai Greenhouse Gas Management Organisation, interview, 10 December 2014)

Effective strategies to communicate information about climate change to the public in Thailand are controversial. Chongkolrattanaporn (2011) investigates public relations media in the climate change mitigation campaign of the Bangkok Metropolitan Administration which reveals that financial and scientific frames fail to encourage the mitigation behaviour of dwellers. The researcher suggests associating climate change with social problems in addition to portraying climate change as an environmental problem. Similarly, journalists and NGOs agree that the key message of communicating climate change should be to highlight its negative impact to people’s lives (Janthong 2015; Hannarong 2014). Moreover, Kasemwit (2008) studies news articles about climate change from 30 Thai language websites, including those relating to commercial and educational matters. Kasemwit (ibid.) argues that emphasizing the impact of climate change is important to raise public awareness of climate change. However, the official who accounts for climate change solutions in Thailand has different opinions about communicating climate change. The official values the

economics of climate change as follows:

I think we need economics of climate change. This approach will guide people to see financial benefits in environmental protection. This is not that I prefer capitalism but we need to accept that people are struggling to understand the science of global warming. With the approach of economics of climate change, we can exhibit a cost-benefit analysis to the public (Jakkranat Nakthong, Director, Thai Greenhouse Gas Management Organisation, interview, 10 December 2014).

In terms of public understanding of climate change, research shows that students in secondary schools in Bangkok have high levels of knowledge and concern regarding climate change (Puangpia 2010). However, they have low levels of energy literacy. In relation to this, Reynolds et al. (2010) mention that people fail to notice that the combustion of fossil fuels is the key source of carbon dioxide emissions. Nevertheless, they have a better understanding about climate change than they did in 1992; for example, they are less confused about climate change and stratospheric ozone depletion. However, Kasemwit (2008) argues that audiences in Thailand detach climate change risks from their daily lives. This is because climate change has been represented with the image of natural disasters in other countries. The researcher also suggested that climate change issues should be localised with current circumstances and geography in Thailand.

Regarding cultural influences, Chongkolrattanaporn (2011) indicates that the perception of risk of climate change of Thai people is constructed from the interplay between Thai values and western philosophy, as well as science. The dominant discourse of Buddhism (Theravada doctrine) and a Sufficiency Economy Philosophy (SEP) are the core ideas that influence the perception.

Buddhist concepts involve Karma or deed. This generally refers to the phrase “What goes around comes around”. This concept, together with scientific information, help to highlight that the causes and consequences of global warming are human related problems (ibid., p.226).

3.4.2 Climate Change News Coverage in Thailand

Climate change issues are advanced by diverse sectors in Thailand. Research indicates that “climate change” and “global warming” are mentioned in news coverage but are dispersed over a number of news sections (Olarrrat 2009). The content tends to emphasise carbon reduction campaigns and innovations. Olarrrat (2009) argues that the representation of climate change in news articles is influenced by corporate social

responsibility (CSR) programmes of business organisations. Similarly, other research agrees that large amounts of climate change content in Thailand newspapers are of a promotional nature (Salathong 2009; Salathong 2011).

Studies of climate change coverage in Thailand typically rely on the quantitative approach of content analysis. Two significant studies were conducted by Salathong (2009, 2011), which investigate climate change coverage in Thai daily newspapers. These findings point out that the amount of climate change coverage was determined by the amount of coverage related to the global movement concerning climate change. Climate change coverage in Thailand tends to correlate with significant events in other countries such as the COP15 meeting, and other international conferences. Accordingly, the amount of climate change coverage in newspapers declined in line with the decrease of progress in the international climate change conferences.

According to Salathong (2011), the peak of climate change news coverage was in 2007, when the United Nations Climate Change Conference took place in Bali. The peak of news coverage in Thailand, consisting of 657 articles published in 3 daily newspapers, reflects the influence of global trends of climate change journalism in Thailand. However, a large amount of the coverage was found on the foreign news pages. Similarly, Kasemwit (2008) points out the dependency of climate change news production on international news agencies. The researcher maintained that climate change news in Thai newspapers is translated from the websites of international news agencies.

Evidently, Salathong (2011) suggests that in terms of placement, between 2009 and 2010, 14 climate change news articles were published on the front pages of daily newspapers in Thailand, equalling 3.8 percent of the overall 393 climate change news stories. In addition, there was a slight shift in climate change news production from translation of news received from international agencies to in-house production. Therefore, a number of climate change news articles were published on local pages and quality-of-life sections (Salathong 2011). Despite this change, research found a decrease of 40 percent in climate change coverage in daily newspapers from 2007 to the 2009-2010 period. Salathong (2011) argues that this declining trend was influenced by the overall volume of environmental coverage that had been dropped as a result of competition from news agendas, especially political news.

Salathong (2011) suggests that the news policy and ideological orientation of each newspaper intensely regulate the frequency of climate change issues and news angles. Significant newsworthiness, which includes proximity, novelty, and prominence, is highlighted in climate change news. The coverage has been associated with risk in disasters taking place in local areas. For instance, rising temperatures, rising sea levels, and floods in Bangkok. Kasemwit (2008) argues that the fear appeal is utilized in news reports to present the hazards and risk of climate change.

Despite other environmental news in Thailand, climate change is not reported as conflict stories in newspapers. The environment journalists argue that:

a skeptical view of global warming is never shown in news reports. I think this is because Thai environmental journalists believe that global warming is real and we are concerned about the risk of climate change (Bhutapan 2015).

Supported by other environmental journalists (Kamkowitz 2014; Bhutapan 2015; Sangthong 2015; Janthong 2015), it seems that perceptions about climate change influence the way that journalists frame news stories. Moreover, it points to the perception of news sources by journalists. Accordingly, unlike climate change coverage in the USA which has tended to balance viewpoints of climate change believers and deniers (Boykoff and Boykoff 2007), climate change coverage in Thailand tends to comply with climate change certainty.

3.5 Conclusion

In its close reading of previous research studies, this chapter has examined the reasons why the status of environmental journalism in Thailand is being dominated by powerful institutions, namely government and business. The emergence of journalism in the country involves the struggle of ideologies, conservatism vs liberalism, to maintain political power. Meanwhile, the profession of environmental journalism in the country has developed among conflicts in environmental and natural resource management. Concerning the context of Thailand which is a developing country, the needs to stimulate economic growth entail usurping environmental resources among governmental institutions, industries, communities, and to be in the public interest. Environmental journalism has been involved in this dilemma and raises public awareness of environmental destruction. Moreover, external pressure from

governmental policy and internal pressure from sponsorship are among the challenges of environmental journalism in Thailand. In relation to this circumstance, it can be seen that daily newspapers adapt themselves to survive, which is reflected in the evolution of the environmental news genre.

This chapter has also shown that in terms of climate change communication, research indicates that corporate greenwashing is conflated with public communication in Thailand, in spite of the global flourishing of climate change anticipation. While the government focuses on promotional campaigns to address the obligation of the country to climate change mitigation, business organisations promote the fact that their activities can reduce climate change. According to this backdrop, climate change journalism has taken place during the downturn of environmental journalism in the country. This circumstance invites queries concerning the representation of climate change in news reports. Since climate change knowledge is powerful in the modernisation era, it is of interest to investigate what environmental truth-claims are made in climate change discourse in news reports. Due to institutional power in Thailand, it seems that the meaning of climate change can be dominated by the primary-definers, namely high status news sources and the experts. The analysis of news related to climate change contributes to the understanding of the discursive practices of powerful actors in the country. Besides, the findings help to unveil to what extent journalism in Thailand is capable of responding to new risks in modernisation, in particular the influence of journalistic norms to the representation of climate change issues.

Chapter 4

Methodology

4.1 Introduction

The objective of this chapter is to demonstrate consideration of the methodologies framework and design of the empirical research investigation to follow. Approaching journalism as the institution in modernization that has an impact on reproducing environmental realities in a society as discussed in the literature review chapter, this thesis's research thus focuses on the investigation of news texts in the first instance, and on semi-structured interviews with journalists and sources in the second instance. In order to outline the rationale informing these methodological priorities, this chapter starts with a section that explains the methodological choices made for this research. The following sections offer further details of the research design, since this research aims to investigate power structures and relationships in environmental issues embedded in the works of Thai press, this research approaches news as "text" exhibiting a distinctive, analysable structure and features. This level of analysis is complemented by semi-structured interviews conducted to explore related insights into news production processes, especially the impact of relationships between journalists and news sources. Therefore, these two research methods, textual analysis and semi-structured interviews, will together advance an empirical enquiry aligned with the research questions. Lastly, details regarding the data-collecting period and research timeframe will be discussed in this chapter as well.

4.2 Justification of methodological approach

Chapter 2, which illustrates related theories and concepts utilised in this thesis's research, shows that environmental hazards in modernization affect people beyond the limitation of class, race and nation-states. Climate change issues have transformed the perspective to reality of environmental problems around the world. Nevertheless, the

manifest hazard is different depending on environmental vulnerability in diverse areas around the world. In consequence, people experience negative effects of climate change in different ways. Therefore, news media are one of institutions that help people in society to make their own understanding of climate change. Nevertheless, the environmental discourse in news media is institutionally constructed. Importantly, the power of “mediascapes” (Appadurai 1996) can suppress local environmental knowledge, while climate change knowledge from western perspectives is prioritised in global news media networks. Accordingly, this thesis’s research problematizes the representation of environmental issues, in particular to climate change, that are manifested in selected Thai newspapers.

In order to investigate climate change agendas, this thesis’s research methodologically approaches news text as the empirical evidence of environmental discursive practices in society. This approach assists researchers in investigating “discourse practices” (Fairclough 1995, p.16) of journalism in Thailand, particularly in the area of environmental news reports. News text, therefore, is the output of the interaction between journalistic practice and the power of institutions in society that demonstrate particular truths of environment that do not naturally reflect the realities of environmental issues. Analysis of news discourse contributes to identifying how climate change agendas are advanced by the newswriters within the structure of news. This thesis’s research is interested in journalistic values, which dominate the construction of environmental news narratives. Since previous research in climate change found that the content in climate change news articles signified “greenwashing” (Olanrat 2009; Kasemwit 2008; Salathong 2011), this thesis’s research thus investigates more deeply the relevant factors in news production. This examination can give explanations of such representation of climate change in news mentioned in previous studies. Furthermore, analysis of news texts can reveal the perception of journalists to their audience, since news production concerns “what can and should be said” (Allan 2011). Therefore, environmental realities narrated in news texts are the indicators of environmental truths which are legitimately accepted particularly by distinct society.

Moreover, news content is codified with “hierarchies of definitional power” (Allan 1995). Textual analysis is thus the tool to clarify interplay between journalists and news sources in the production process to encode news texts. Therefore, this aspect allows researchers to analyse news discourse without neglecting the complex power relationship embedded in the strategies of news sources and the negotiation of journalists. Manning

(2001) suggests that researchers can look at news texts as the evidence of the complex power relationship that determines social practice. Therefore, textual analysis is the strategy to achieve the understanding to these power relationships, which is naturalised, rather than the method of observation and analysis of news production processes; in his own words ‘this is the task of trying to describe and understand those structural dimension of power, within the news encoding process, which are only “visible in their consequences” (ibid., p.46).

In Chapter 3, the context of Thailand is discussed where it reflects the politics of natural resource management which have been sustained along with the industrialization of the country. It can be seen that local environmental conflicts are usually about turning natural resources into industrial input. The usurpation of natural resources harms the folkways of local people, while the regulations of government seem unable to resolve the conflict in the long term (see examples in section 3.3.2). This circumstance is of interest to environmental news beats, which frame environmental problems as conflicts of interest between the state and communities. Environmental injustice in Thailand is thus emphasized in environmental news. From this backdrop, climate change brings new kinds of environmental problems to journalism in Thailand. Arguably, the situation has escalated from the politics of local natural resource management, which manifest obviously in society, to the politics of climate change which are complex and latent. It is of interest to see to what extent journalism in the country responds to this change.

Accordingly, analysis of news texts, which concerns those whose environmental claims are addressed in news media and whose claims are absent from the news text, is the method employed to investigate the power relations in society. Since “[l]ack of power can be measured based on the lack of active access to discourse” (Dijk 2008, p.76), the investigation of news texts thus allows an understanding of the politics of environment in Thailand, especially, when the country binds with the politics of climate change. Therefore, extended institutional powers influence environmental practices in the country. Meanwhile, the suppression of the voice of marginalised people is found in the issue of natural resource usurping in Thailand (Kongton 2010). It is unclear whether climate change, which evidences the problems of development in the approach of capitalism, has influenced either the increasing or decreasing of the voice of marginalised people in society. To this notion, the analysis of news discourse can help in clarifying power relations among the state, citizen, and journalism in Thai society.

Regarding this methodology consideration, textual analysis is developed to investigate the power relations embedded in news related to climate change in selected Thai newspapers. In order to clarify precisely what is meant by this thesis's use of the phrase "textual analysis," the following sections provide underlining ideas regarding discourse and power, while also showing how and why elements of critical discourse analysis (CDA) have been taken up to build the chosen framework. The following sub-sections (4.2.1-4.2.2) specifically clarify how CDA concepts inform this thesis's approach to textual analysis.

4.2.1 Discourse and power

Since the focal point of this thesis's research is to examine power relations embedded in news related to climate change, this sub-section aims to illustrate the relationship between discourse and power, where news media are involved in reproducing particular environmental discourses.

Defining what "discourse" means depends on the context. Discourse can be considered as having dual meanings that are adaptable according to its context. At a concrete level, discourse can refer to particular ways of representing parts of the world. When discourse is considered in more abstract dimensions, it refers to the meaning of language and type of semiotics as elements of social life (Fairclough 1989). Discourse is involved in social practice in three dimensions. Basically, discourse is involved in the way that one communicates, such as how someone who is in a particular social position utilises language. By this, discourse is embedded in our social activities in everyday life. Furthermore, discourse is situated in the representations of the self, others, and society. Discourse is involved in how social actors construct the social reality to their own sense. People interpret the meaning of social actions which surround them and "recontextualise" their own meanings. In other words, the meanings of social actions that one perceives and represents are varied depending on the position in which one is situated. Moreover, this representation also determines social practice.

The last dimension that discourse involves in social practice relates to the identity of self. People construct their own perspectives toward themselves. They identify themselves with some specific position, which is determined by discourses. As a result, the interaction of

actors in society depends on this self-construction. Even though these three dimensions of discourse are separately explained, it is not that discourse operates dividedly on each level of social interaction. On the contrary, all of these dimensions work dialectically and internalise each other. Consequently, overall context is required to be included in order to understand discursive practice in one phenomenon.

Regarding the relationship between discourse and society that mutually determine each other (Fairclough 2003), discursive practice is a continued process of meaning making. On the one hand, people have the privilege to construct their own meanings of social world and self-relationship, which agree on specific discourses. On the other, discourse is socially constructed and it is carried by social interaction. In other words, the power of discourse can also govern social practices. Social practice likewise cumulatively sustains the power of such discourse to society. Various discourses, which are embedded in everyday life activities such as language utilization, can result in the tensions that can be manifested or invisible (Heroux 2001; Dryzek 2005). Accordingly, scholars interested in the study of discursive practice, (which refers to the way of practice in social life that was dominated by some discourses and suppressed other discourses) eventually yields the advantages of particular social groups and classes in modern society. Understanding discursive practice makes invisible power of the discourse visible and reveals particular ideologies promoted by institutions.

Discursive power can result in “normalization” (Foucault 1978), which means the process situated in the social interactions that take for granted either actions or ideas, which align with dominant discourse by taking it as “common sense”. Particular actions and ideas in modern society thus concern “normal” practice. Meanwhile some actions that do not comply with the institutional discourse are perceived as “deviant” or abnormal. Accordingly, discursive power that is embedded in news media has a vital role in shaping the realities of environment in modernisation. In particular to Thai society, the issue relating to environmental discourse advanced by powerful actors that normalises the environmental practices of institutions and marginalises some actors in society, is investigated in this thesis’s research.

4.2.2 Applying critical discourse analysis to analyse news texts

Since discourse and power are involved in a number of areas of social interaction, from production and dissemination, to interpretation of text, similarly, the work of journalism is a complex process of “codification” that journalists use in the interpretation of speech from their news sources and transform such facts into specific truth claims. In order to analyse the product of this complex process, the research methods are shaped from an application of ideas derived from critical discourse analysis. This sub-section aims to demonstrate the overall concepts of critical discourse analysis and to emphasize specifically selected parts of this approach adapted for the thesis’s research agenda.

Definitions of critical discourse analysis (CDA) can vary considerably, but in general the approach widely utilised in media and journalism studies exhibits certain common features. In this thesis’s research, I borrow a specific element of the CDA approach to inform my textual analysis in order to examine the discourse and power relationships between journalists and news sources. More specifically, by approaching news as text, my aims are to analyse news structures and news narratives, which have a distinctive system in the production of meaning. Moreover, the linguistic structure of the Thai language is different from English, while news structures and narrative conventions in producing news are more universal in many cultures. The unit of analysis in this thesis’s research is that of news articles in both Thai and English languages. Therefore, the analysis strategy of this textual analysis method, which does not focus on linguistic structure, helps to manage the differences in language of the unit of analysis.

The analysis of the linguistic systems utilised in a particular text is followed, in turn, by the analysis of discourse embedded in language. Next, the analysis moves to the state of interpretation of text by the reader or the audience, where the relationship between the text and social relations is theorised as a dialectic process (Richardson 2007, pp.37-43). Fairclough (1995, p.55) emphasises that “CDA is the analysis method that explores the tension between two sides of language use, the socially shaped and the socially constitutive”. This means that the CDA method is not definitely limited to analysing text. On the contrary, CDA embraces the aspects of producing and interpreting text which includes the relationship between the author and the reader (Fairclough 2003). Regarding this thesis’s research, this selective borrowing from CDA emphasises that the relationship between production of text

and discursive practice is worthwhile for investigating how news text that carries order of discourse in a society influences the reproduction of environmental realities in society. Especially, this thesis's research includes the analysis of news production that influences a sustaining power structure in environmental management in society as mentioned by Fairclough (1989, p.22) as the "interpretation of complex and invisible relationships".

However, the scope of this thesis's research focuses on the analysis of production of text, news production, and the discursive practice embedded in the news text, while the approach relating to how the audience interprets news related to climate change is not included in this study. This is because this thesis's research aims to investigate the operation and status of journalism in Thailand concerning issues related to climate change, ultimately, the impact of journalism on power structures of environmental policy in Thailand. In this sense, I specifically address the methodology of this thesis's research as "textual analysis", which is considered to be one part of discourse analysis, dealing with the discovery of the discourse type drawn inside particular texts and the classification of those discourses as mentioned by Fairclough:

Classification schemes constitute a particular way of dividing up some aspects of reality which is built upon particular ideological representations of that reality (ibid., p.96).

Moreover, this methodology provides researchers with the methods to detect the ideological struggles which can be either implicit or explicit within diverse levels of social organisation. According to this notion, it is significant for textual analysts to have a comprehensive knowledge of social contexts in which texts are situated. The following sections demonstrate two research methods which are introduced along with the research questions.

4.3 Restatement of research questions and research methods

Regarding this methodologies framework, the researcher designed two research methods, which are 1) textual analysis of news articles and 2) semi-structured interviews. The choice of these two methods was made in order to develop a mode of enquiry to address the concerns identified in my earlier research literature reviews. The following subsections

provide further details and the analysis procedures to be utilised in this thesis's case studies. The research methods are aligned with the specific research questions to be explored.

4.3.1 Textual analysis method

Textual analysis is employed by Carvalho (2007) and Olausson (2009) to examine climate change news. The analysis strategies differ, depending on research design, for example, the analysis of manifested elements shown in investigative texts. This aspect involves the analysis of the structural and organisational characteristics of texts such as page numbers, size, and headlines. Further rhetorical devices employed in the text such as language strategy, theme, ideology standpoint and actor are also included. Moreover, textual analysis can be utilised in examining the presence and absence of certain keywords and stock phrases, as well as stereotypical images. This aspect is necessary to understanding the discursive process.

This multifunction reflects the adaptability of textual analysis to serve a variety of research objectives. This thesis's research aims to investigate news related to climate change in Thailand. By framing news as "text", the representation of claims relating to climate change and environment in newspapers can reveal discursive practices in Thai society, regarding environmental issues in Thailand where many conflicts in natural resource management take place among the government, community, and industry. News media is a public space where diverse groups possibly represent their perspectives on environmental issues. However, it is possible in the circumstances that gatekeepers agree on the publicity. At this point, analysing discourses embedded in news articles also demystifies the representations of environment that benefit some groups in society. Furthermore, the power of particular environmental discourse can be understood from analyses of news texts. For example, the discourse of sustainability, which is the outcome of negotiations between the discourses of industrialism and conservation, currently dominates social practice in the world in which environmental risk is increasingly concerned. However, it is questionable that the discourse of sustainability serves, rather than disrupts, industrialism (Luke 1995). This again leads to the issue of the order of discourse that prioritises particular ideologies in modern society such as capitalism and economic progression.

It has been suggested that expanding analysis from concrete elements in the text to intangible factors that constrain text production is significant (Silverstone 1999; Fairclough 2003). This leads to the second level of analysis that can be considered as contextual analysis. This textual analysis method is designed to analyse news articles from selected newspapers in Thailand. The analysis strategy can be described as consisting of three steps of analysis separated along the structure of news articles. However, the whole process of analysis is not considered as being entirely separate. On the contrary, the analysis that starts from the level of textual analysis and moves to contextual analysis is cumulated to strengthen the findings of this thesis's research. The following sub-sections explain analysis strategy with research questions, as well as the data-collection process.

4.3.1.1 Analysis strategy for textual analysis

This thesis's research treats news text as a unit of analysis. Accordingly, the analysis focuses on the implications of news language, which concerns news structure (placement, headline, lead, body), news narrative, and rhetoric embedded in the narrative. Accordingly, the analysis procedure is demonstrated as follows:

1) The analysis of the headline and placement

In terms of journalistic writing, the headline is the most important element in news structures. On the one hand, headlines help readers to quickly gain the big picture of reported information. On the other, headlines function in attaining the attention of the reader. Furthermore, front-page headlines also significantly relate to the sale volume of newspapers. Therefore, headlines do not only present the current situation but also represent the perspective of discourse encoders such as editors or reporters. This thesis's research examines how climate change is referred to in the headlines of news articles. Moreover, particular words, phrases, and marks that are utilised as modality in discussing climate change are included in the investigation, such as auxiliary verbs (might, may, can, could, will) and some modal adverbs (potentially, probably, possibly, surely, certainly), which signify the meaning of levels of certainty.

This analysis strategy answers research question 1: to what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers?

2) The analysis of the news lead

In general, the news lead is the first paragraph that shows the priorities of news elements. The news lead is traditionally written within the structure of “5Ws 1H”, which is the formulation of what, when, where, why and how, that defines the occurrence. The news lead reflects the newsworthiness that news writers perceive in specific stories also exhibited through rhetorical language. In order to examine the leads, this thesis’s research focuses on the prominence of particular newsworthiness manifested in the news lead. In addition, a number of the topical themes employed in news stories can be examined in news lead analysis. This can show how climate change is framed within news reports. Furthermore, the examination of modality is also underlined.

This analysis strategy answers research question 1: to what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers?

3) The analysis of body

This also moves to constitutive intertextuality or “interdiscursivity” (Fairclough 1992, p.47) which is a macro-analysis of intertextuality. This part of analysis aims to uncover the order of discourse that determines social practice, especially revealing institutional discourses that influence news production processes. By mentioning institutional discourse, I also include journalistic professionalism in this notion. Furthermore, a number of discourses are potentially engaged in news discourse.

The analysis of news bodies concerns the representation of diverse actors and their voices in climate change agendas. The examination of how different news sources and “speech of another” (Fairclough 1992), which is merged into the news discourse, are brought into the analysis. According to this, the reportage words that define indirect speech and the quotation marks that signify direct speech are included in this analysis. Therefore, this analysis helps researchers to understand the interpretation of risk in climate change that journalists employ in the news production process. Furthermore, the disappearance and manifestation of news sources in different news paragraphs can be investigated at this stage. The results of analysis can reflect the prioritisation whereby journalists allow various news actors to justify their interpretation of climate change in news structures.

This analysis strategy answers research question 2: who are the claim makers shaping news coverage of climate change issues in the selected newspapers? It also answers research question 3: what is the nature of the debate - particularly with respect to truth claims - concerning climate change in these newspapers?

4.3.1.2 Data collection for textual analysis

This thesis's research is a mixed-method analysis that employs two separate methods of data collection. The major method is textual analysis and the secondary method is a semi-structured interview. I targeted newspapers for collecting data for textual analysis. The reason is that printed media provide more potential to reach the objective of exploring relationships between news entities and environmental claims in society. Due to the political situation in Thailand, the broadcast system has been intervened by the censorship scheme since May 2014, when the military government seized Thailand. Moreover, in terms of data collection, accessibility to the archive of broadcasting content is not easy. Meanwhile, newspapers do not comply with government censorship and, accordingly, press reporters have more flexibility in covering news.

In terms of social media, a previous analysis of climate change conversations on Twitter (Jang and Hart 2015) evidences that social media reinforce climate change agendas which are preset by mainstream media. In spite of opening new democratic public spheres, social media users tend to engage with like-minded users. In addition, in the context of Thailand, where the digital divide still demonstrates the large gap between rural and urban areas, Thai people tend to utilise social media to satisfy their needs for entertainment (ETDA Thailand 2015). By this, social media platforms play a less important role in terms of stimulating public opinion about environmental issues. The following sections demonstrate the data collection processes of the two respectively.

- **Identifying target newspapers**

Newspapers are crucial in stimulating public opinion. In terms of this thesis's research, the literature review allows insight into the fact that news related to climate change is associated with energy policies in Thailand. Regarding this context, examining text in newspapers assists the understanding of how climate change issues are advanced in news

articles which contribute to the construction of public opinion and public policy in the country.

This thesis's research selected three national daily newspapers for purposes of analysis. The three newspapers consist of two Thai language newspapers and one English language newspaper because the findings relate to climate change coverage worldwide, which tend to derive from analysing English language newspapers, especially in the UK and the US (Anderson 2014, p.74). This emphasis limits the scope for making generalisations about Thai news coverage. However, I selected Thai language newspapers and the English language newspaper because of their importance for pertinent public debates within Thailand, as discussed below. My findings may thus provide further insights into climate change coverage mediated in more than one language. Moreover, the criteria informing my selection of newspapers for this study also concern their different news policies, readerships, and news priorities. The detail of the three newspapers is demonstrated as follows:

A) *The Bangkok Post* newspaper

The *Bangkok Post* is a broadsheet newspaper published in the English language. Its establishment in 1946 makes *Bangkok Post* the first newspaper in Thailand that operated commercially. The circulation is approximately 75,000 copies. The newspaper contains three main parts, which are 1) the main section which reports major hard news including political news, local news, international news, crime, and op-ed, 2) the business section and 3) the outlook that reports soft-news and lifestyle.

The *Bangkok Post* has focused on progressive news reports in environmental issues for many years. However, the environment section was closed down because of financial reasons following the economic crisis in Thailand in 1997. Their environmental journalists had been allocated to other sections and some of them resigned.



Figure 4.1, Front page of the *Bangkok Post* newspaper

B) *Krungthepturakit* newspaper (กรุงเทพธุรกิจ)

Krungthepturakit is a Thai language business newspaper that has been published for 2 decades with a current circulation of 200,000 copies. The newspaper is an affiliate of the Nation Group which is the largest media conglomerate in Thailand. Environmental news is included in the section named “the quality of life” in the main section of daily newspapers. This section comprises a quarter of the news pages to report a range of news about technology, science and environment.

However, the newspaper provides a monthly special supplement, which is distributed with the main section. The supplement; the “*Green Report*”, has a unique news policy that aims to provide alternative news related to environment in Thai society. According to this initiation, the editorial team of the *Green Report* learnt from trial and error in news production. For example, the newspaper has experimented with reducing ink intensity in their publication on the basis that this reduction ensures sustainability in using resources. It is claimed by the editor in chief (Kanchana 2015) that the *Green Report* can increase the educational target group of the newspaper, as well as gaining sponsorship from businesses which need to publish content related to sustainability. Although the editorial team of the *Green Report* cannot control the type of advertisement that is submitted, they argued that they have received great support from the marketing department to select advertisements which suit the *Green Report*’s positioning.



Figure 4.2, Front page of *Krungthepturakit* newspaper

C) *Thairath* newspaper (ไทยรัฐ)

As the first Thai language newspaper, *Thairath* was established in 1950, it has the largest circulation of a popular general-interest newspaper, distributing 1,000,000 copies. Therefore, the newspaper has a high impact on the social agenda in Thailand, which leads to a lucrative income from its advertisement rate per column inch. *Thairath* is published in broadsheet size. However, its similarity to tabloid newspapers in the UK has led to criticism about its sensational content. While tabloid newspapers in the UK, for example, the Sun, publishes sexual female images in its “Page three” column, *Thairath* has a similar column on the front page of the Sunday issue. Also, the newspaper is being criticized for its violation in rights to privacy of the victims in crime news. The newspaper comprised of two main sections. The main section provides op-ed, main columns, and hard news, which are local news, international news, political news, and crime news. The second section comprises entertainment news and sport news. In terms of environmental news, the newspaper provides a page in the main section that combines agricultural, environmental, and technological news. However, the agricultural section of the newspaper takes up most of the space on the page.

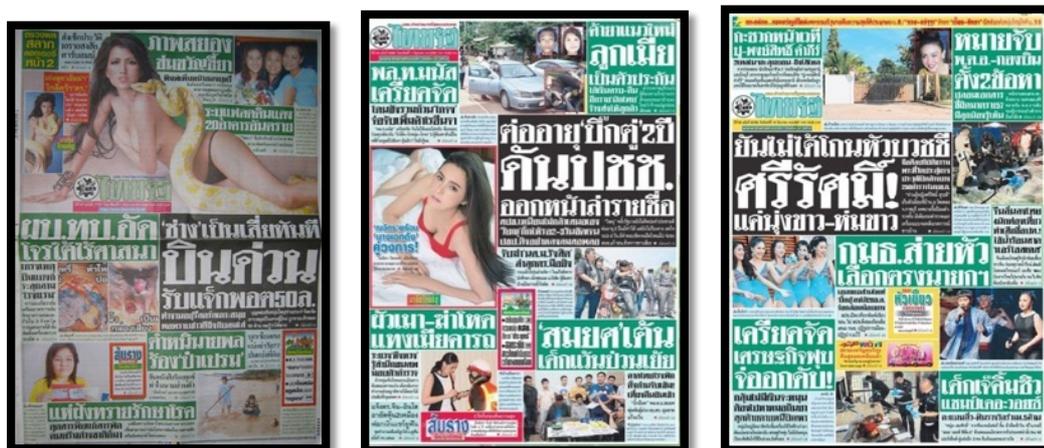


Figure 4.3, Front-page of *Thairath* newspaper

- **Identifying target news articles**

The researcher employs a full-text search engine from a private news clipping provider⁹ to search news articles from three newspapers, which contain target keywords relating to climate change. The selection of keywords is developed base on two pilot studies, which brought the insight of how the issues of climate change are usually engaged with other topics in the national newspapers. For example, newspapers usually reported the opinion of scientists about the correlation between climate change and drought crisis in Thailand happen in 2015, as well as specific science explanation about the correlation between El Nino and climate change. A set of keywords in both English and Thai languages, utilised with the search engine, is demonstrated as follows;

- 1) English language: “climate change” or “global warming” or carbon or CDM or “clean development mechanism” or UNFCCC or COP21 or IPCC or El Nino

⁹ IQnewsclip is an online news clip service provider, which provides news articles and advertisements published in more than 300 national newspapers and news agencies in Thailand. The company acquires the finished PDF file format of every newspaper issued directly from newsrooms and has stored the data since 2006 up until now. Its client can apply the keyword search function, which is run by full-text search software, to obtain the specific data required. The output will show in PDF format, in full colour, original news articles published in newspapers. The information regarding page and size are also shown in the output (<http://www.infoquest.co.th/service/news-service/iqnewsclip>).

- 2) Thai language¹⁰: สภาพภูมิอากาศเปลี่ยนแปลง OR โลกร้อน OR คาร์บอน OR ซีดีเอ็ม OR กลไกการพัฒนาที่สะอาด OR อนุสัญญาสหประชาชาติว่าด้วยการเปลี่ยนแปลงสภาพภูมิอากาศ OR การเจรจาเรื่องโลกร้อน OR คณะกรรมการระหว่างรัฐบาลว่าด้วยเรื่องการเปลี่ยนแปลงสภาพภูมิอากาศ OR เอลนีโญ OR เอลนีโญ

In order to verify the relevance of the sampling articles derived from full-text search engine, I employed frequency analysis to separate types of the articles, their topics, and their trend during choosing timeframes. The frequency analysis shows several correlations between the characteristic of the sampling articles and that of previous research in Thailand (Olartrat 2009; Salathong 2011). Moreover, I read all sampling articles to ensure that advertorial articles, as well as the articles which are not contribute directly to climate change issues, are excluded from the process of close analysis of news articles. The process of data sampling is further discussed in the following sub-section.

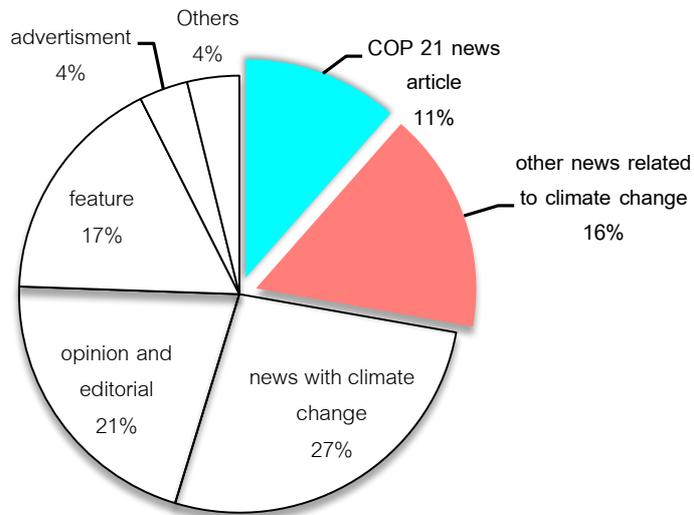
- **Identifying timeframes for data collection for textual analysis**

The period of data collection is designed to cover significant events related to climate change. According to previous research (Salathong 2011; Lee et al. 2013; Dirikx and Gelders 2010; Boykoff 2007b) this indicates a correlation of major events and a high volume of climate change coverage. The researcher designed a data collection period between 1 June and 31 December 2015, when Thailand was preparing to attend the UNCCC meeting (COP 21) which took place in Paris in December 2015.

Accordingly, there are 481 articles derived from the full-text search engine. The frequency analysis is exhibited to provide overall understanding of data derived from the search engine. The following charts and table illustrate the frequency of news articles in three newspapers from broad perspectives to specific categories of articles, respectively.

¹⁰ It has been noted that some keywords in the Thai language are transliterations from their roots in foreign words by maintaining their phonetic roots such as “คาร์บอน” which is a transliteration of “Carbon”. “เอลนีโญ” “เอลนีโญ” and “เอลนีโญ” are all transliterations of “El Nino”. This results in many ways of spelling one transliteration word depending on specific publications.

Figure 4.4 , Articles found from full-text search engine separated by type total of 481 items (June - December 2015)



According to figure 4.4, there are 124 news articles which report climate change issues. Of this amount, there are 51 articles that directly report the COP21 meeting, while the other 73 articles report environmental topics that relate to climate change. Moreover, the other types of articles which are not news articles, and the articles that mention keywords but do not contribute to environmental topics, are excluded from the analysis.

Moreover, frequency analysis of news articles related to climate change shows that the amount of news related to climate change reported in three newspapers has a correlation with the climate change occurrence of the COP21 meeting. It can be seen that the peak of news coverage was in December 2015.

Figure 4.5, Trending of news articles related to climate change amount in three newspapers from June to December 2015

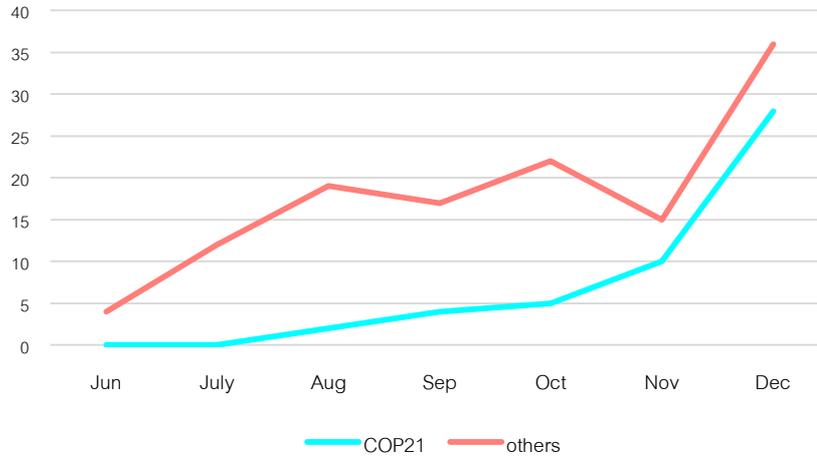


Figure 4.5 exhibits the trend of news articles related to climate change between June and December 2015. News articles are reported separately between the COP21 news agenda and other news related to climate change. The trend shows that two news agendas reached their peak in December 2015.

Concerning the 124 news articles included in this thesis’s research, most articles are from the *Bangkok Post* newspaper, namely 54 news articles between June and December 2015. This is followed by *Krungthepturakit* that has 41 articles in the same period. *Thairath* has the smallest number of news article related to climate change, amounting to 38 items. Table 4.1 illustrates the number of news articles related to climate change in three newspapers between June and December 2015, separated by publications and news agendas.

Table 4.1: Number of news articles related to climate change in three newspapers between June and December 2015, separated by publications and news agendas.

News article related to climate change	Newspapers			
	<i>Thairath</i>	<i>Bangkok Post</i>	<i>Krungthepturakit</i>	Total
1)COP 21 agenda	11	29	11	51
2)other agendas	27	16	30	73
Total	38	54	41	124

Finally, the researcher has purposively selected 36 news articles¹¹ (30 articles of the COP21 and 6 articles from other news agendas) from the total of 124 articles into textual analysis.

4.3.2 Semi-structured interview method

The semi-structured interviews were designed as the secondary research method to support the textual analysis method for the following reasons:

Firstly, employing a textual analysis method tends to enact “inquiry problematic” issues (Manning 2001). Researchers frequently make inferences about the social relationships related to the production of news texts because media text is the result of the combination of social and symbolic elements. News is the symbolic practice. News productions involve criteria such as organisational structure, chain of command, and the way that each news organisation frames events. Therefore, a further investigative method that ensures the impact of journalistic practicality on the news text is useful for validity of the analysis.

Secondly, the semi-structured interview complements the level of discursive analysis since text is the output of the interpretation process of social actors. Examining three levels of analysis, namely the meaning, the action, and the representation of text, is essential to provide insight into the findings. Also, the semi-structured interview helps researchers to assess both manifest actions and abstract ideas that exist in the setting of analysis, such as news actors’ knowledge and perception of climate change. Research indicates that news sources engage deeply with the framing process of environmental news, especially in the case of a journalist who is inexperienced regarding climate change topics (Ramos and Carvalho 2000). Accordingly, semi-structured interviews can assist the understanding of the complex relationship between news sources and journalists.

Finally, regarding the journalist as “an author” (Fairclough 2003, p. 12), while journalists need to deal with a number of environmental discourses, they also comply with

¹¹ The articles are enclosed with this research; please see appendix.

journalistic standards in the production of news texts. They can act as the discursive producer and they can be subjects of discursive processes at the same time. Furthermore, this thesis's research includes interviews with news sources as the actors that engage in discursive processes. To earn comprehensive understanding of these interactive processes of interpretation and communication, the semi-structured interview is also employed in this thesis's research.

Overall, the advantage of semi-structured interviews is that they enhance the validity of the primary analysis of news articles. This method is conducted in the study in order to gain insights into the relationship between sources and journalists that take place in environmental news production. This semi-structured interview method contributes to textual analysis regarding further exploration of discursive practices during the newsgathering process. For example, the practices of journalists from different news beats that interact with news sources in diverse situations and social contexts. However, this practice is unable to be traced from textual analysis. Accordingly, the interview sessions with journalists and news sources assist in revealing their perception toward their relationship and involvement in the newsgathering process, especially the operation of news sources that helps to "keep the issue silent". By this, there is the need to further explore implicit attempts that are not manifest in news content.

This answers research question 4: what factors drive the influence of primary-definers in environmental news production in Thailand?

4.3.2.1 Using a qualitative interview approach to conduct semi-structured interview methods

This dimension of the research applies qualitative interviews with target groups. The main advantage is the opportunity to understand the different aspects and interpretations of specific social events. Atkinson (2003) compares the position of researchers between participant observation and qualitative interview. Despite certain advantages gained by participant observation, qualitative interview assist researchers in making sense of complex social relationships while, at the same time, not intervening to shape or influence the nature of the actual events. This characteristic of qualitative interviews helps researchers to understand both perspectives of journalist informants and news source informants.

In qualitative interviews, there are differences between unstructured and semi-structured interviews. Unstructured interviews are usually employed in a setting where researchers need to learn about abstract phenomena during the course of the inquiry. Therefore, the role of the researcher is that of the deep listener who asks a small number of questions that are adaptable along the process of the interview only to glean the participant's story during the interview (Morse 2012 , p.194). Different questions are employed for the different participants depending on the perceptions and experiences of each respondent. In comparison, the semi-structured interview is "the type of interview that consists of a question stem, to which the participant may respond freely. Probing questions, planned or arising from the participant's response, may be asked" (Morse 2012, p.197). Accordingly, semi-structured interviews offer more control to the researcher during the interview session. Although the responses are unscripted and the respondent is free to set open-ended questions, the investigator knows in advance the questions that need to be asked but not all the possible responses. The researcher maintains flexibility of interaction between the interviewer and the interviewees. This flexibility, which responds to the foundation of constructionist epistemology, opens the opportunity for the interviewee to express experience, belief, event, and perspective freely (Atkinson 2003; Rubin 2012). The researcher performs as a conversation partner who gathers narratives, descriptions and interpretations arising from conversation. As a result, this method attains rich information from interviewees such as feelings and emotions to some events.

Accordingly, the semi-structured interview questions of this thesis's research were drafted in advance. The details of the semi-structured interview method utilised in this thesis's research is demonstrated as follows:

4.3.2.2 Constructing semi-structured interview questions

The set of main interview questions is designed in the light of findings from textual analysis that reflect the dominance of official news sources in news related to climate change. Although the focal point of the interview sessions is drawn to assess major queries related to the influence of primary-definers in news production processes, this set of questions is designed to start conversations with general questions to "break the ice" between the researcher and the interviewee. Meanwhile, questions 4-6 are designed to generate

conversation about the relationship between journalists and news sources. These questions are wide open for the informants to reflect their perceptions and experiences around the main areas of news production. Finally, questions 7-9 are designed to allow the informants to further express their overall perspectives toward journalism. These main questions are consolidated with follow-up questions and probe questions when conversation touches on abstract concepts such as environment, climate change, risk, modernity and Thai culture. The pre-test of questions was conducted with three former reporters in Thailand before the main data collection began. The set of main question utilised in the semi-structured interview method is as follows:

- 1) How often you have been involved in conversations about environment and climate change?
- 2) What do you think about public perception of climate change in Thailand?
- 3) What do you think about climate change news that you have read or seen before? What is it that you like or dislike about these news items?
- 4) In terms of climate change, is there any difference between the daily conversation that you communicate on your own and that which you communicate on behalf of your organisation? If there is, then what is that difference?
- 5) When you need to communicate on behalf of your organisation (as communicator or reporter), from where do you access the information source?
- 6) Please explain the production process of climate change news or environmental news that you have engaged with.
- 7) What is the main challenge of climate change communication or journalism in Thailand?
- 8) What do you think of environmental journalism in Thailand?
- 9) How can climate change news be developed?

4.3.2.3 Identifying target informants

The informants are identified by using the criteria of expertise and experience of involvement in the following circumstances:

- 1) Those who are working in specific professions, namely journalism, public relations, community relations, grassroots movements and communication management,

- 2) Those who have more than five years' experience in environmental issues, climate change, pollution, and natural resources management,
- 3) Those who are located in Thailand and/or have worked in Thailand.

In order to access the right informants and maintain the non-manipulative method of identifying targets (Wengraf 2001), the aforementioned criteria are used along with further sampling techniques, which comprise the purposive sampling to identify key informants. Then, a snowball sampling technique is employed to expand the circularity of informants. Nonetheless, the number of informants depends on the saturation of information (Rubin 2012). This process resulted in 26 informants who were interviewed for this research. This total was comprised of 14 journalists and 12 news sources (see the list of the informants in tables 4.2 and 4.3). All interviews were conducted in accordance with Cardiff University's guidelines for ethical research. After the data-collection period, the thematic analysis was conducted. It is not only the verbal language which the researcher analyses. Non-verbal language such as gesture, facial expression and the way that interviewees express their ideas, were similarly important to attain the depth of information (Rubin 2012). In terms of data organisation, the use of recording machines proved helpful. However, field notes were also made during the interview sessions.

The following sub-section explains further challenges of the interview procedure in a real setting. Also, the tabulates of the informant list are provided in tables 4.2 and 4.3.

4.3.2.4 Challenges in the interview procedure

This section aims to address the particular strategies that I employed in dealing with challenges in the interview procedure which took place in Thailand, where cultural differences are central to the issue of accessing and disclosing information.

In terms of the context of Thailand, cultural and political sensitivity affect the interview process. The political situation, after the coup d'état in May 2014, limits rights of expression of citizens and the media. 690 civilians, including journalists, academics and students, were arrested by the military government on grounds of communicating political ideas. Recently, a total of 700 people were sent to military court (Thai Lawyer for Human Rights 2015) (as of 21 June 2015). Moreover, the patronage culture in Thailand tends to

praise citizens who respect members of the authorities. This culture also expects society to value the expert. Concerning these cultural differences, several decisions have been made to deal with this situation. Importantly, the following considerations and procedures were conducted to obtain the data with respect to Cardiff University's guidelines for ethical research.

- **Researcher identity:** since I conducted the research interviews by myself, the issue of identity has become a crucial point to the success of accessing the informant. While I am a PhD student in the United Kingdom, my identity in Thailand can be perceived in a different way. I have a background in public relations in which I worked for 10 years. I am also a member of the faculty of journalism in a well-known state university. In order to refrain from the status of the expert and official that can be intimidating to some informants, I initially introduced myself to informants by using the identity of "research student". However, the target informants were informed about my background after they were briefed about the objectives and overview of the research project.
- **Formality in contacting and trustworthiness:** while formality can be considered as trustworthiness in the United Kingdom, formal contact procedures such as sending formal letters to propose the interview, imply a sense of bureaucracy and arouses suspicion among journalists in Thailand. Due to these differences, I decided to rely on informal methods to initially contact potential informants. Social media platforms were used to introduce myself to target informants in the first place. This was done to reduce the formality that tends to lead to stress for the informant. Moreover, the target informants are addressed as the experts in their profession. The key message employed in the introduction is to ask for help in a research project that is related to understanding about environmental journalism. Once the target informant expresses their initial interest in giving an interview, a description of the research project, formal letters and related documents, and a list of questions, if required, are provided to the informants before their final decision to participate in the project.
- **Data disclosure and protecting confidentiality:** all informants are reminded that they are having a conversation with a researcher before starting the interview session. Although I explained the necessity of anonymity in the research, all journalist informants argued that they intended to disclose their real identity in the

research report. However, I decided to write this thesis's research with pseudonyms for all informants, journalists and news sources, as well as the organisations for which they work. Meanwhile, the working title of informants such as "reporter", "editor", and "public relations manager" is maintained. This is because I need to protect the informants from "deductive disclosure" (Kaiser 2012, p.457). Accordingly, the identities of interviewees in Chapter 6 are presented in a way that is protective enough of their privacy and reflects enough context of news production.

- **Interview logistics:** after the informant agrees to the interview, the meeting is arranged at a convenient time and venue for the informant. The meetings with journalist informants usually take place in either their home or the lobby of their office. Due to the nature of their work, the place and time of interview usually depend on their work schedule. The interview usually takes 1-2 hours. I have found that journalist informants are keen on gauging interview procedures and taking turns in the conversation. This makes the first interview very different from the later one. The questions are adapted along the emerging topics around the news production process. Moreover, I observed that journalists are open in expressing their perspectives of the journalism profession in Thailand. Also, informants insist on keeping in touch and agree to provide follow up information via either phone call or email. Meanwhile, the interviews with news sources require different methods of managing logistics. The informants who work for private sectors prefer to give interviews in their offices, especially those whose working positions are at management level. However, the informants whose working titles are at the operational level prefer the interview to take place outside their offices at the weekend. This selection of venue reflects that the informants are concerned about their privacy and the disclosure of information.

Finally, I also had the opportunity to observe the editorial meetings regarding the *Green Report*, which brings further insights into the news production process. Atkinson (2003) suggests that qualitative interviews are useful as a triangulation technique along with participant observation to enhance the understanding of social life that is cultivated by both performance and narration. This is a minor feature of my case study, but a valuable one nonetheless.

Tables 4.2 and 4.3 provide the list of informants in this thesis's study that consist of 26 informants comprising 14 journalists and 12 news sources. Although I applied pseudonyms for their names, surnames and names of their workplaces to protect their privacy. The following tables indicate years of experience that each informant has in their occupations related to climate change and environmental communication.

Table 4.2: The list of informants who are journalists or veteran journalists, separated by work experience in environmental news and industrial and economic news beats.

No.	The journalist informant	Years of communication experience in related field	
		environment	Industrial & economic
1	Warapa Janthong, first editor, <i>Green Report</i>	5-7	more than 10
2	Chalaow Kanchana, executive news editor, <i>Krungthepturakit</i> newspaper	7	more than 20
3	Pichai Kanpirom, news editor in chief, TV news channel	more than 20	more than 10
4	Sributree Bhutapan, news editor for online news section, Thai Independent Channel	more than 10	2-3
5	Salila Watanakan, section editor, <i>the First News</i>	more than 10	-
6	Nuntida Sangtong, section editor, <i>The Bangkokian Newspaper</i>	5-7	-
7	Janrawi Kamkowitz, news editor, Thai Independent Channel	5-7	-
8	Winyu Raksasi, former environmental news editor and the News Editor in Chief	more than 30	-
9	Meka Dettrakun, veteran environmental news editor	30	-
10	Thanida Paosri, reporter at news bureau in the Ministry of Health, <i>the First News</i>	5	-
11	Nattawut Kamjinda, the News Editor, <i>Thai City Newspaper</i>	10	-
12	Noppon Pedchai, industrial news reporter at <i>Thailand Post</i>	-	more than 10
13	Aroon Kwanpong, section editor, the <i>Trade Post</i>	-	more than 20
14	Indra Chana, financial reporter, <i>The Bangkokian newspaper</i>	-	15

Table 4.3: The list of informants who are news sources for climate change related news, separated by work experience in communication issues, which are science and environment, industrial and economic.

No.	The news source informant	Years of experience in issues	
		Science & environment	Industrial & economic
1	Anon Sanitwong, director, The Geo-Informatics and Space Technology Development Agency (Public Organisation)	more than 15	-
2	Father Dhammapirom, the monk who initiates the first recycling outlet in Thailand	more than 30	-
3	Sanchai Thongrak, director, the Environmental Foundation	more than 20	-
4	Saichon Budsarin, communication Specialist, Greenpeace Thailand	more than 20	-
5	Sidthi Nantachat, associated professor in climatology	more than 10	-
6	Malida Klaprayut, communication specialist, Climate change related NGO	7-10	-
7	Katawat Asunchai, director of Public Affairs in state owned organisation	5-7	-
8	Sujittra Meepanya, director of Public Relations and Corporate Affairs in the state enterprise organisation	more than 20	more than 25
9	Kanchai Rodcheewa, communication Specialist of Public Relations and Corporate Affairs in the state enterprise organisation	more than 10	more than 10
10	Piya Bantadtan, manager, the industrial corporation	more than 10	more than 10
11	Punnee Rachabhun, public relations manager in energy production company	more than 10	more than 15
12	Hansa Lapsakon, media relations manager in energy production company	more than 10	more than 15

According to table 4.2, apart from informant numbers 8 and 9 who are veteran environmental journalists, other journalist informants are still involved in the process of climate change related news production directly and indirectly. In relation to the news articles selected for analysis in Chapter 5, eight journalists joined in the daily editorial meeting and the editorial process of news production. Moreover, five journalists from the list are the writers of the news articles.

Table 4.3 shows the list of news sources that consist of the informants whose occupations related to scientific and environmental communication. Four news sources are working for NGO organisations, five news sources are the officials, and three news sources are from private companies that are concerned high environmental risks. The name of these informants and their organisations were also identified by assessing the news sources found in the news articles, which were analysed in Chapter 5. Moreover, I found that the list correlates with the names that were mentioned by the journalist informants (table 4.2) as their news sources during the interview.

4.4 Conclusion

This chapter elucidates the rationale informing decisions made regarding the methodology framework which guides the conduct of this study. It was explained why this research approaches news texts as empirical evidence in order to better understand the interrelationship between modern environmental problems and the practice of journalism in Thailand. The analysis of news texts, drawing on several concepts from CDA, can clarify the dynamics of relationships between powerful institutions, local and international, and citizens to manage environmental issues. Moreover, journalism, as one of the powerful institutions in society, can influence the realities of environment perceived by the audience. In this sense, this research therefore investigates textual evidence indicative of the practice of journalists in responding to climate change issues.

In order to address the thesis's research questions, two complementary research methods were designed for this study. Textual analysis was the main research method and semi-structured interviews assisted in exploring the relationship between journalists and news sources as the actors involved in the production of news related to climate change in Thailand.

Three newspapers, the *Bangkok Post*, *Krungthepturakit*, and *Thairath*, were purposively selected for the research. The timeframe of the data collection was between June and December 2015. Afterwards, 124 news items from three newspapers, which contain target keywords about climate change were derived from full-text search engines, while other materials that do not constitute news were excluded from this thesis's research. The descriptive analysis of these 124 news articles was conducted in order to evaluate similarities and differences in climate change news coverage which had been found in previous research, namely, the number of articles, trending of articles, and frequency in each newspaper. Finally, 36 news articles were purposively selected for close analysis by the textual analysis method.

In terms of the interviews conducted for this study, this research applied the approach of a semi-structured, qualitative interview, which is flexible enough to avoid the limitations associated with either structured or unstructured interview approaches. The interviews were conducted in Thailand with due acknowledgement of political-cultural sensitivity. The informants, who included journalists and news sources, were purposively selected from the criteria of their experience in dealing with news production and their careers. Moreover, a snowball technique was applied to expand the circle of potential informants. Accordingly, a total of 26 informants, whose identities have been protected for privacy, were interviewed.

Chapter 5

Textual Analysis of News Related to Climate Change

5.1 Introduction

This chapter introduces and critically interprets the findings derived from a textual analysis of selected news articles relating to climate change published in the chosen three newspapers in Thailand (*Thairath*, *Krungtheprakit*, and the *Bangkok Post*) between June and December 2015. The close examination of 36 news articles aims to answer the pertinent research questions for this level of investigation, which are 1) To what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers? 2) Who are the claim makers shaping news coverage of climate change issues in the selected newspapers? 3) What is the nature of the debate - particularly with respect to truth claims - concerning climate change in these newspapers?

Since this thesis's research took place during the downturn of environmental journalism in Thailand, the news articles included in this study were produced from a number of news desks. Therefore, diverse news stories relating to climate change were included in this study. However, the analysis focuses on two news stories, namely an international event and a local event, namely the COP21 meeting and a global warming lawsuit in Thailand, respectively. Meanwhile, other news stories, for example, extreme weather events and scientific data release that were reported in the newspapers, are acknowledged in the analysis. According to the variety of news stories, this chapter is structured to demonstrate what news frames are applied to the occurrences by analysis of headlines, in order to exhibit a broad perspective in textual analysis. Afterwards, the chapter demonstrates the analysis and discussions derived from elements of news structures.

In order to answer the research questions, the discussion aims to provide insights into implications about the journalism profession's responsibilities for raising climate change issues in Thai society. This chapter starts from a demonstration of major news agendas that are portrayed in the newspapers (section 5.2). Therefore, the presentation of this section intentionally provided only a broad picture of news agendas reported in the newspapers to start with an overall idea of the findings, while further details are illustrated and discussed in

the following sections. After that, section 5.3 – 5.5 provides discussion and examples of journalistic standards and values, in particular to newsworthiness, news narrative, and objectivity standards, which influence the manifestation of news related to climate change and its presentation in the newspapers. Moreover, the discussion concerning environmental truth-claims that are maintained in news related to climate change is illustrated in these sections. Further discussion that identifies actors who are involved in climate change news stories is demonstrated in section 5.6. Then, the chapter moves on to discuss the power of climate change discourse and the implications of climate change representations of environmental practices in Thailand. Finally, the conclusions from this textual analysis will show how journalism influences the reality of climate change and the environmental situations in Thailand will be evaluated.

5.2 Episodic frames in news related to climate change

The objective of this section is to establish a broad perspective of textual analysis findings derived from news articles collected from *Thairath*, *Krungthepturakit*, and the *Bangkok Post* newspapers during a seven-month period (June – December 2015).

The analysis of news related to climate change identifies episodic frames utilised in news agendas related to climate change. In other words, news angles focus on daily occurrences about climate change. Even though climate change, global warming and carbon emissions were placed in their headlines, leads and slugs, the stories do not contribute directly to investigative or in-depth stories about climate change issues. On the contrary, events ranging from international politics to investments in coal-fired power plants were reported in news stories. Moreover, these news stories were published over diverse news pages. While previous content analysis (Olartrat 2009; Salathong 2011) examining news coverage in Thai newspapers simply mentions that news stories referring to climate change do not contribute to the environmental topic, this thesis's research further discusses characteristics of these news stories. The analysis therefore reveals the spectrum of events that newswriters perceive to be about climate change.

The examination found that news coverage focused on two major events during the seven months. Also, these events are claimed by the news sources and the journalists to show

that climate change has a significant influence on their existence and emergence. Since these two news agendas will be discussed further throughout this thesis's research, in this section, two news events are described with their backgrounds and context to address their relations with climate change issues. However, the details of analysis of representation of these news agendas such as news value, news narration, and news sources, which are more interpretative, will be discussed later in section 5.3-5.5. At this point, this section starts with general information about two news agendas to show the framing of the events in news as follows:

5.2.1 Global warming lawsuit agenda

The agenda of the global warming lawsuit is reported continuously in three newspapers. The issue emerged on 14 August 2015 when the supreme administration court sentenced 23 villagers to pay 1.5 million BHT (34,511 GBP) in reparation for forest encroachment. This lawsuit was filed under the Environmental Act passed in 2012, although the legitimacy of the compensation scheme developed by the Royal Forest Department of Thailand has been criticized by academics. The compensation model was developed from two calculation factors: the type of the damaged forests and the average of rising temperatures in the damaged areas. Specifically, the degree of rising temperatures is compensated by the expense of using air conditioning to cool the damaged area. While the Royal Forest Department argued that the penalty was reasonable because it responded to global warming problems, critics alleged that the calculation was unacceptable in terms of scientific standards. In addition, the civic sector opined that global warming lawsuits harm environmental justice in society because people in rural areas are more vulnerable (Kaiyoonwong 2009).

While the establishment of the environmental court in Thailand has been delayed by unstable politics, long-run conflicts between the state and communities related to forest encroachment have not been easy to resolve for decades. In 1964, the government passed the National Reserved Forest Act, B.E. 2507 (1964) which reclaimed 39,000,000 rai (15,419,375 acres) for a conservation area (The Royal Forest Department of Thailand 2017). The Acts that aim to conserve forest areas and protect species of wildlife force locals to leave their homes without either subsidies or emergency habitat. Therefore, the communities, the majority of whom are ethnic minorities, claimed their rights to reside on the land inherited

from ancestors and resisted evacuation. Consequently, a combined force of army and police enforced communities to move from the forest. This has resulted in long-run confrontations between the state and the communities until today.

The analysis shows that news articles which report this issue refer to the 'global warming lawsuit' (see appendix 18, 20-23). This is because the court emphasised the fact that forest encroachment obstructs the carbon reduction target of the country. The reports mention criticism by academics and NGOs, and brought public attention to social justice in environmental issues. The verdict of the court was published in the *Bangkok Post* and *Krungthepturakit* newspapers, where “global warming” is mentioned in the slugs. However, the articles provide neither the context of global warming nor climate change in the body.

5.2.2 The COP21 in Paris agenda

The analysis of the three newspapers found that the 2015 United Nations Climate Change Conference, which took place between 31 November and 11 December 2015 in Paris, was reported. After the expiration of the Kyoto Protocol, it had been expected that the meeting would result in an agreeable solution for carbon mitigation and other anticipated schemes such as financial support to vulnerable countries. The Prime Minister of Thailand participated in the meeting and pledged to reduce carbon emissions by 20-25% from current levels. However, environmentalists criticized the fact that emission targets are hindered by the Power Development Plan 2015 which proposed to invest in two coal-fired power plants. This controversial PDP2015 brought a large amount of criticism against the national development policy and the legitimacy of the military government (the details of the PDP2015 are in section 5.5.2).

Two weeks before the conference, on the night of 13 November 2015, Paris was attacked by The Islamic State of Iraq and Syria (ISIS). Consequently, the French government strengthened the security protocols in Paris and restricted public mobility during the COP21 meeting. This led to a demonstration of left-wing environmentalists. Finally, the conference took place on schedule, which resulted in the Paris Agreement limiting the rise of global temperature to within 2 degrees.

During the seven-month period, three newspapers in Thailand reported related events, such as press conferences, media briefings, cabinet meetings and seminars, organised

by relevant organisations, to the COP21. These news stories were published before the beginning of the COP21. During the 10 days of the conference, news coverage focused on activities in the meeting on a daily basis in the three newspapers. The peak of coverage was on the last day of the conference when the meeting reached consensus. The total numbers of news stories in relation to the COP21 event are 25 articles and images. In addition, the agenda of the COP21 was connected to the controversy of national energy policy, PDP2015.

5.2.3 The influence of news policy on framing in news

This sub-section aims to discuss the influences of newspapers' policies on framing in news related to climate change. This study is conducted based on three types of newspaper: *Thairath* is a popular newspaper, *Krungthepturakit* is a business newspaper, and the *Bangkok Post* is an elite English language newspaper. Therefore, the analysis shows that the policy of newspapers is crucial to the way that climate change issues are framed in their news articles, although news related to climate change similarly tends to be in event-oriented frames. Comparing two news agendas, the global warming lawsuit and the COP21 meeting, the examination found that the coverage of the global warming lawsuit has a less episodic frame than that of the COP21 meeting in all three newspapers. In other words, there is a variety of new sources and context provided in global warming lawsuit news. Moreover, the coverage of the COP21 meeting featured seminars and conferences hosted by government organisations. Venues and topics of seminars were mentioned in the COP21 news reports.

The example of the COP21 meeting news from two newspapers, the *Bangkok Post* and *Krungthepturakit*, is the seminar “Counting down to COP21”¹² at the French Embassy. This event was hosted by The Delegation of the European Union to Thailand which cooperated with Thai officials for briefing journalists prior to the beginning of the COP21. While *Krungthepturakit* published this event on 25th November with the headline, “PM promises to reduce global warming in Paris in late November”¹³, the *Bangkok Post* reported this event the following day with the headline, “Kingdom aims to cut emissions by 25%”. The analysis shows that the two news articles quoted similar sources, the Director of Climate Change Management and Coordinator Division. In this sense, the two newspapers gave priority to

¹² Author's translation “โค้งสุดท้ายก่อนคือป 21” (Kong Sud Tai Kon COP 21)

¹³ Author's translation “นายกฯ ชูลดโลกร้อนบนเวทีปารีสสิ้น พย” (Nayok Choo Lod Lokron Bon Wa Tee Paris Sin Poryor)

this seminar event differently. It is not clear what factors delayed the report of the *Bangkok Post* to the next day, while its competitor had already reported the event. This might be because of the competition of other news events on the day. Nonetheless, this difference reflects that the seminar about the COP21 is portrayed as important but non-emergency. However, the coverage from the three newspapers on the final day of the meeting when the members reached consensus evidences prioritisation to the COP21 meeting (see figure 5.1). The reports mentioned that the consensus was reached and resulted in the Paris Agreement. The headlines of the news stories are as follows:

- *Bangkok Post*: **Govt feels heat on climate deal**
- *Krungthepturakit*: **195 countries agree on temperature increased limit at ‘1.5’ degrees¹⁴**
- *Thairath*: **Global members appreciate in solving global warming deals COP21¹⁵**



Figure 5.1, Three news articles from the *Bangkok Post* (left), *Krungthepturakit* (middle), and *Thairath* (right) published on the day that the COP21 reached consensus

Although the three newspapers similarly used episodic frames in the COP21 news, there are differences of news angles. While *Krungthepturakit* and *Thairath* focused on the success of international cooperation, the *Bangkok Post* further designated potential effects from the Paris Agreement to the national arena. Therefore, the *Bangkok Post* gives more context and implications of the COP21 to Thailand than the other two newspapers. In this

¹⁴ Author's translation "19ชาติลงนามคุมอุณหภูมิโลกเพิ่มต่ำกว่า 1.5°" (195 Chat Longnam Kum Aunabhum Lok Peum Tumkwa '1.5')

¹⁵ Author's translation "นานาชาติปีติยินดีข้อตกลงโลกสู้ COP21" (Nana Chat Pluem Kor Toaklong Kair Lokron COP21)

light, these differences highlight the significance of news policy to the representation of the COP21 agenda. It can be seen that the three newspapers framed the same event in distinct ways. Nevertheless, other factors such as news production processes, and the knowledge and perception of newswriters to climate change can undermine the depth of the news narrative. These factors will be discussed further in following sections.

In sum, this section points out the similarity of news related to climate change and other environmental news that is reported in episodic frames in the three newspapers. In relation to event-oriented frames, their news narratives are diverse across the different newspapers. Arguably, climate change related news is influenced by the news policies and production processes of newspapers. The discussion of news narrative is provided in following section.

5.3 Implications of news production and news narrative to the presentation of news related to climate change

This section aims to investigate particular characteristics of news texts that influence the representation of news related to climate change in three newspapers, namely, *Thairath*, *Krungthepturakit*, and the *Bangkok Post*. In order to answer research question 1, ‘to what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers?’, the analysis involves examining narrative style, presentation, and placement of news related to climate change in specific newspapers. The section discusses each newspaper separately to identify distinct characteristics in news texts, especially the COP21 news agenda in the newspaper. The discussion is advanced against the backdrop of the environmental situation in Thailand.

The investigation of news articles shows that the three newspapers placed the COP21 event in different news sections. *Thairath* published the meeting on the international news page, while *Krungthepturakit* and the *Bangkok Post* published the event on local pages. The discussion of news related to climate change in three newspapers is demonstrated as follows:

5.3.1 *Thairath* newspaper and churnalism

During seven months of observation, *Thairath*, which is a popular newspaper, published all articles about the COP21 meeting in the international news section. The articles were narrated with 5W and H structure including the 37 column inch report of the final round of the COP21. The analysis shows that the contexts of the meeting such as background and its implication to Thailand are not provided in the reports. Therefore, merely basic information of daily movements in the meeting was reported in the news. Some comments of the leaders in the meeting were provided with indirect quotes. This style is similar to other climate change related news published in *Thairath* during the seven-month period.

The coverage by *Thairath*, shows evidence of churnalism (Davies 2008) in news production that results in the dependency on the information gained from secondary data such as corporate press releases and websites. Arguably, the newspaper relies on secondary data to produce news related to climate change. However, it is not clear whether journalists retain information from international newsfeeds or webpages because the source of information was not mentioned in the news article. Moreover, a hard news style is employed in the news report of the COP21 for time-saving reasons. This is because the structure of hard news allows journalists to fill in information they seek from webpages and international newsfeeds quickly. As a result, the news reports do not provide comments from Thai delegates about the Paris Agreement. On the contrary, all commentators in the news story are world leaders who gained attention from international news agencies; for example, the report on the final day of the COP21 meeting was headlined, “Global members appreciate solving global warming deals COP21” (see table 5.1). Additionally, the rigid structure of the news writing detached the event from related context in Thailand, for example, the national carbon emission policy and alternative energy sources in the country.

Table 5.1, Illustration of news article structure, content of the COP21 report, and sources mentioned in the article published on the final day of the meeting

Structure	topic	News source
Leading	Summary leading	without news source
Paragraph 2	Praising the consensus of the meeting and congratulating the world's cooperation	Indirect reported speech <ul style="list-style-type: none"> • Ban Kee Moon, Secretary-General of the United Nations • Barak Obama, the President of the US
Paragraph 3	Mentioning other members who congratulate the consensus of the meeting, namely, David Cameron, Narenthra Modi, Christine Lagrad, Jim Yong Kim	without news source
Paragraph 4	Reporting that 'green activists' claim that the agreement is not legally binding to its members. The consensus will directly affect the future of fossil industries.	without news source

In terms of other news about climate change in *Thairath*, their narratives similarly display signs of churnalism. For example, news images published on the science and agriculture news page present the images of polar bears and whales. It is mentioned in photo captions that these species are affected by the climate change situation (see appendix 3-5). However, the newspaper does not provide the sources of these news images. This thus implies that these images were shot by in-house photographers. On the contrary, acquiring the images of polar bears which are victims of climate change from the internet or international newsfeeds is more practical. Research also mentions the popularity of using polar bears and whales as iconic photographs for climate change news stories (O'Neill 2009).

The other examples are short news articles which feature climate change effects. A number of news stories were written briefly in a hard news structure. Moreover, news

angles utilized in the headline address the impact of climate change with alarmist tones such as:

- **Global warming causes harsh flood risk**¹⁶
- **Global warming causes loss of efficiency in 30 years**¹⁷
- **More poor because of global warming**¹⁸

These articles were published in the international news section. Although the source is not mentioned in the news story, it seems that these stories have been translated from international newsfeeds. While their headlines depict the harsh effects of climate change, the news content merely consists of brief excerpts from reports issued by international academies such as the World Bank (see figure 5.2). For example:

Washington- World Bank reports that global warming will affect UN target to reduce poverty worldwide. Moreover, it will drag more than 100 million people around the world to poverty. This is because of dramatic changes in climate which increase drought, flood, and disasters. The situation will cause food scarcity and a 5% increase in food prices in 2030 which will reach 30% in 2080.¹⁹

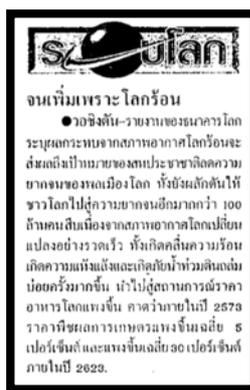


Figure 5.2, The article in *Thairath*; ‘More poor because global warming’

¹⁶ author’s translation from “โลกร้อนเสี่ยงท่วมหนัก” (Lok Ron Siang Tuam Nak), *Thairath*, 11 June 2015, appendix 6

¹⁷ author’s translation from “เหตุโลกร้อนอีก 30 ปี ประสิทธิภาพหด” (Hed Lok Ron Eik 30 Pee Prasittapab Hod), *Thairath*, 29 October 2015, appendix 7

¹⁸ author’s translation from “จนเพิ่มเพราะโลกร้อน” (Jon Pem Proa Lok Ron), *Thairath*, 10 November 2015, appendix 8

¹⁹ excerpt from “จนเพิ่มเพราะโลกร้อน” (Jon Perm Proa Lok Ron), *Thairath*, 10 November 2015, appendix 8

In addition, local consequences are not mentioned in the news stories. Accordingly, the climate change issue is represented as a global threat detached from the economic and environmental contexts of Thailand. Arguably, climate change coverage in *Thairath* has become a “climate change drama” that is merely able to fulfill the emotional satisfaction of its readers. Due to the fact that the news content is divorced from the reality in the local domain, the reader is merely able to “know” about climate change but not fully understand it. Importantly, the effects of climate change portrayed in the news are unrelated to their real lives. In spite of the debate about climate change certainty in the UK and Europe (Boykoff 2007a; Dirikx 2010), climate change is portrayed as a real and uncontrollable risk in *Thairath*, the largest popular newspaper in Thailand.

In contradiction to previous research that suggests an increasing trend of in-house production of climate change news (Salathong 2011), this thesis’s research argues that in-house content in popular newspapers is, in fact, churnalism. The analysis of news related to climate change in *Thairath* draws the questions to the news production process and, also, to the perception of newswriters of the issue of climate change. Therefore, particular factors in news production are discussed in section 6.5 to clarify churnalism in news related to climate change.

5.3.2 *Krungthepturakit* and alternative news narratives of the COP21 in the Green Report

Krungthepturakit is a business newspaper that provided a separated supplement named the *Green Report*. The *Green Report* aimed at providing a monthly news scoop related to environment to the reader. While daily environmental news in *Krungthepturakit* is the responsibility of the “quality of life” news desk, the *Green Report* had separated the editorial team (see details of the *Green Report* in sections 3.4.2 and 6.5). Due to the specific character of the newspaper, particular issues about the representation of climate change in news coverage of *Krungthepturakit* and the *Green Report* are discussed below.

In terms of the main section of *Krungthepturakit*, the findings suggest hard news and episodic frames in the COP21 news. Similar to *Thairath*, the analysis of the seven-month coverage that mentioned climate change in *Krungthepturakit* reflects churnalism in the production process. Although the COP21 meeting was reported in local sections of the

newspaper, essential context related to Thailand was withdrawn from the news stories. For example, the news article on the final day of the meeting was published in a local section named “Focus”, which is located at the back of the main section. However, the article merely records a brief report that the meeting reached consensus but its significance to local contexts is not provided. Additionally, the source of the information was not mentioned in the article.

To elaborate, the headline of the news report is, “195 countries agree to limit temperature rising by ‘1.5’ degrees”²⁰. This headline highlights the impact of the event and the number of countries who joined in the event. These elements were brought together to emphasise the significance of the Paris Agreement. According to this newsworthiness, the hard news structure provides comments from the leaders of powerful nations, instead of only the contributions from Thai authorities. Accordingly, it is unclear why the newspaper published this article, which lacks a local dimension, in its local section. It is notable that the article was placed on the back cover which is a prime page. In comparison, the news article on the inner page of a local section called “Society-Community-Environment” reports on a media briefing prior to the COP21. It seems that the newspaper prioritises international events over local events. This assumption is clarified further along with findings from the interview method (see section 6.4.1). Nevertheless, this difference between the placement of articles implies particular factors in the editorial process that affected the representation of the event related to the COP21. Importantly, the findings point out that journalists perceive the climate change issue to be an international matter that has fewer implications to Thai society. Evidently, representation of the COP21 event concerns ‘what’ is happening out there but “why” and “how” are omitted from the news report.

In terms of the *Green Report*, the newspaper dedicated its December 2015 issue to the COP21 meeting. Three main columns of this issue report and analyse the COP21 event as illustrated in table 5.2.

²⁰ author’s translation from “ 195 ชาติลงนามคุมอุณหภูมิโลกเพิ่มต่ำกว่า‘1.5’” (195 Chat Long Nam Kum Au Na Bhum Lok Peum Tum Kwa ‘1.5’), Krungthepturakit, 14 December 2015, appendix 9

Table 5.2: Main columns in the December issue of the Green Report separated by page, headline and space.

Page	Column and headlines	space (column inches)
1	Change Climate Change Notre Dame Global adaptation index	228.91
8	GR monitoring the world temperature: Thailand joins the troops to reduce greenhouse gases 20-25% ²¹	140.38
7	GR innovation: Thai-IPCC; the route to fight global warming ²²	213.47

These main columns acquired full pages to report the news. Therefore, the coverage has a less episodic frame and provides a greater context of COP21 than the articles in the main book, for instance, the GR innovation column on page 7. The headline that highlights engagement of Thailand to the IPCC is followed by a news lead that elaborates on the background of the meeting and commitment of Thailand to the Paris Agreement as follows:

The feedback of Major Prayut Chan-O-Cha, the Prime Minister, after travelling back from the COP21 meeting in Paris in early December was the order to relevant departments [...]. This feedback is a significant drive to activate all sectors.²³

After the news lead provides a background to the COP21, the news story introduces the Thailand Greenhouse Gas Management Organisation (TGO), which is responsible for the national mission in reducing greenhouse gases. The news article gives a comment from the expert from TGO that elaborates on policy and procedure, on which TGO cooperates with extended national departments. Finally, the article suggests that Thailand is missing its direction in anticipating the climate change problem. The country should have focused on climate change adaptation and increasing climate change resilience. It is argued that the government dedicates large resources on mitigation, whereas Thailand releases less than 1% of greenhouse gas. The article concludes:

It can be seen that critical issues of Thailand are impact, vulnerability, and adaptation. These issues should be prioritized. However, they received less attention than

²¹ author's translation from "ไทยร่วมขบวนการลดก๊าซเรือนกระจก 20-25%" (Thai Ruam Kabuan Lod Gas Ruankrajok 20-25%), appendix 10

²² author's translation from "Thai-IPCC หนทางสู้โลกร้อน" (Thai-IPCC Hon Tang Su Lok Ron), appendix 11

²³ excerpt content from the *Green Report*, December 2015, appendix 11

reducing greenhouse gas, of which the country releases less than 1%. [...]. Concerning in miss direction of Thai authorities are make sense²⁴

In comparison to the COP21 news in the main section, the analysis of news articles in the *Green Report* shows a writing structure that does not follow the 5W and H style, allowing more essential context of the event to the news story.

The issue-centric structure in the *Green Report* is flexible enough to exhibit relevant context in Thailand related to activation of the Paris Agreement. Importantly, the structure of writing can provide diverse dimensions of climate change issues that are the science of climate change, politics of climate change, and climate change management. As a result, the presentation of the climate change problem is neither limited in ecological or economic aspects. This complex dimension is unable to be presented in daily newspapers.

Since the *Green Report* is a monthly supplement, the editorial team is not limited to a daily news routine. This factor contributes to the narrative utilised in their COP21 scoops. Newswriters can spend weeks in the initial process of developing their ideas and direction of the issue. Then, the editorial team has further time for accessing news sources, gathering data, and drafting the storyline of articles. In consequence, extended news structures beyond the 5W and H format are brought to increase the opportunities to represent the issue comprehensively. In terms of the COP21 meeting, this issue-centric article can push the focal point of the story beyond “what happened in the COP21 meeting” to its implications to Thailand. Importantly, this increases the diversity of climate change discourse because there is the opportunity for local authorities to voice essential information.

Nevertheless, the findings also indicate that increasing local news sources does not reduce the predominance of the expert as primary-definer. In fact, the COP21 news stories are dominated by particular sources, namely politicians, officials, and experts. This prevalence of expert sources points to the idea of primary-definers in news, which is discussed in section 5.6.1.

²⁴ excerpt content from the *Green Report*, December 2015, appendix 12

5.3.3 The *Bangkok Post* and typification of COP21 news articles

The *Bangkok Post* was the only newspaper from Thailand which had their journalist at the COP21 meeting in Paris. Therefore, the *Bangkok Post* reported the COP21 news more frequently than the other two newspapers during the ten days of the meeting. Moreover, the analysis during the seven months shows that the *Bangkok Post* reported news about climate change more frequently than the other two newspapers. Also, these news articles feature the COP21 within the relevant context of Thailand, especially the controversy of the Power Producing Plan 2015. In order to illustrate the development of news narrative in the *Bangkok Post*, which had been altered along with the intensive situations across the meeting, this sub-section focuses on the analysis of 7 news articles that were published during the meeting. The analysis is illustrated as follows.

The analysis shows that both episodic frames and thematic frames are found in the articles. The articles published during the first three days of the conference focused on daily updates of the event, for example, news articles on 2 December 2015 (see appendix 12), that report the announcement of the Prime Minister of Thailand about emission direction at the meeting. The headline mentioned that the “PM vows to cut emissions at Paris summit” signifying a newsworthiness which concerns the prominence of the Prime Minister and the COP21. The event-oriented article is written in an inverted pyramid structure, and mentions “climate change” in slug²⁵. The news article also provides some part of the Prime Minister’s speech. The last paragraph of the news article is a comment by the US President about the significance of the summit. In addition, the *Bangkok Post* published news images on the front page which portray the Prime Minister as giving his condolences to the victims of the Paris attack. Its caption mentions that the image was circulated to the media by the Government House. Figure 5.3 illustrates a news image published on the front page of the *Bangkok Post*.

²⁵ a slug is a short name given to an article that is in production. The story is labelled with its slug as it makes its way from the reporter through the editorial process.



Figure 5.3, Front page news image in *Bangkok Post* 2 December 2015

Despite the fact that the *Bangkok Post* is the only newspaper which had a reporter at the meeting, the news report presents a similar picture to the other newspapers. Arguably, the *Bangkok Post* focuses on the impact of the meeting on international relations in which Thailand is involved. Moreover, publishing news images provided by the Government House thus increases the predominance of official sources, as well as churnalism in news production. This hard news disconnects the COP21 from its Thai context, for example, the effects of carbon reduction to the domestic economy. Nonetheless, this news report is the only article which reports the speech of the Prime Minister of Thailand, while other newspapers merely feature actions and comments of world leaders such as the US President and the Prime Minister of China.

Nevertheless, the *Bangkok Post* published articles that engage the COP21 with local contexts in the following days. These articles were narrated with alternative structures, which were titled “special report” and “news analysis”. The details of these articles are discussed below.

The first ‘special report’ was published on 5 December with the headline, “Critics say emission vows ‘a pipe dream’; renewable resources under-used as southern projects and energy import plans forge ahead”, writes **Paritta Wangkiat** (original emphasis, see appendix 13). The analysis indicates that the narrative of this special report engages with the

COP21 meeting, which is an international occurrence, to a local controversial issue about investment in coal power plants. In consequence, the article encourages extended dimensions of the COP21 beyond international politics. Moreover, the journalistic norm of identifying news sources is compromised in the report. Anonymous news sources, who are attributed as “critics”, are cited in the news lead that addresses scrutiny over the possibility of reducing greenhouse gases by 20-25% and mentions that:

Thailand’s pledge to massively cut carbon emissions by 20-25% from its 2005 levels has been questioned by critics, who regard it as a pipe dream. The pledge, also known as Thailand’s Intended Nationally Determined Contributions (INDC), was made by Prime Minister Prayut Chan-O-Cha at the 21st Conference on Climate Change (COP21) held in Paris last week. (my underlining)

The article provides a background about planning to build coal power plants and the Power Development Plan 2015. The claim which mentions that PDP2015 is an obstacle to mitigation policy is raised in the news article. Further contexts related to energy demand in Thailand are also provided. Several officers and experts are quoted in the news, for example, the director for Energy Policy and Planning Office (EPPO). The analysis suggests that the article tends to balance the news story by offering comments from both supporters of and opponents to coal-fired power plant building. Nevertheless, it can be seen that the headline and lead prioritized oppositional aspects to building coal power plants.

The second “news analysis” was published on the front page of the *Bangkok Post* on the day that the COP21 reached consensus (appendix 14). This news analysis features the objectives of the Paris Agreement with the capability of Thailand to reach its international goals. Moreover, the article claims that megaprojects hinder Thailand’s ability to reach its commitment to the Paris Agreement. To elaborate, the news headline, “Govt feels heat on Climate Deal”, emphasises the newsworthiness of the impact of the Paris Agreement on Thailand. Leading and following paragraphs offer a background to the Paris Agreement and its significance in the global environment. The article advances the opinion that Thailand is struggling to succeed in making a commitment to the Paris Agreement by providing the opinion of experts. They argued that megaprojects impact on the release of greenhouse gases, especially investment in coal-fired power plants. The following is an example from the article:

Withoon Premwongsacharoen, director for the Mekong-Energy and Ecology Network (MEENet), suggested the Thai government be more sincere about developing renewable energy, aligning with the global push to green energy rather than invest-

ing in coal [...] However, most of the government’s policies have been criticized by green activists. They cited the controversial PDP which will replace gas dependency by increasing renewable energy sources in power generation from 7% currently to 20% - part of which includes mega hydropower – of total energy capacity by 2036. But coal use will increase from 10% to 25%, possibly pulling nine coal-fired power plants into the pipeline, raising concerns about Thailand’s ability to achieve its INDC target and its credibility at future rounds of talks²⁶.

In light of the analysis of the COP21 agenda in the *Bangkok Post*, several arguments are raised as follows. Firstly, this thesis’s research argues that transformation of narrative style from event-oriented to issue-oriented is influenced by relaxation of time constraints. Arguably, news reports during the first three days of the meeting are episodic because journalists had limited time for the newsgathering process. However, journalists can frame the COP21 meeting differently when having more time on newsgathering and becoming familiar with the meeting (see table 5.3). Therefore, the newspaper is able to publish issue-oriented news analyses and special reports at the final stage of the meeting.

Table 5.3: The articles that report the COP21 news agenda during the COP21 meeting in Paris, 1-14 December 2015.

issue	News framing	Headline and sub headline
1 December	event-oriented	PM weighs emissions goal effect
2 December	event-oriented	PM vows to cut emissions at Paris summit with news image of Prime Minister laying flowers in the Place de la Republique in Paris circulated by the Government House
4 December	event-oriented	Asian Nations vow to be haze-free by 2020
5 December	Thematic - Special report	Critics say emissions vow ‘a pipe dream’. Renewable resources under-used as southern projects and energy import plans forge ahead
9 December	event-oriented	Thais refuse to help fund climate efforts
14 December	Thematic - Analysis	Govt feels heat on climate deal. Analysis: Analysts say focus on coal, megaprojects imperils Thai targets under global pact

Secondly, this thesis’s research argues that the predominance of official sources in news articles during the first three days of the meeting signify that journalists activated the “web of facticity” (Tuchman 1980) to deal with the complicated details of the COP21 and

²⁶ from “Govt feel heats on Climate Deal”, Bangkok Post, 14 December 2015

tight deadlines. In other words, official sources and accessible material provided by the organiser help to verify the complex facts that journalists need in the climate change newsgathering process. Accordingly, politicians and officials gain news media access in the COP21 event. Using the web of facticity in the COP21 news results in the prevalence of managerial discourse in climate change news (see discussion about discourses in climate change news in section 5.7).

In relation to the influence of news routines, the analysis shows that hard news narrative limits approaches to climate change in news. Hard news in inverted pyramid structures cannot deliver complicated factors involved around the COP21, ranging from the background of greenhouse gas emissions worldwide to Thailand emissions, as well as related effects to the economy and society. Importantly, the hard news structure fails to inform the climate change issue within the agenda of the COP21. Even though newswriters addressed “climate change” and “global warming” in the slugs of hard news reports, the science of climate change and other related aspects are omitted from the news report.

In this sense, this thesis’s research argues that hard news narrative is a tool that assists journalists in dealing with time constraints in news production. The structure of 5W and H allows journalists to manage facts, especially comments from a number of news sources that are gained from using the web of facticity in a practical way. In terms of the COP21, journalists use inverted pyramid structures to arrange the particular facts of the meeting, which are verified as truth from authoritative sources, to present the reality of the meeting. In doing so, complex realities concerning the COP21, ranging from international relationships to national situations in climate change, can be reduced or discarded without compromising objective standards in news writing.

In terms of alternative news narratives, this thesis’s research argues that particular claims about environment and climate change are embedded within narrative style. Due to the flexibility of narrative structure, journalists can create the order of facts for delivering specific ideas to the reader. The story can be started with the background of the event and contexts related to the issues. In addition, news actors introduced in the story have a wider diversity of social class and social status than actors in the structure of the inverted pyramid. Therefore, the climate change issue can be combined with extended aspects and topics. However, the difference between news analysis narrative and special report narrative is

ambiguity. The analysis shows that there are several similarities in their narrative structure, despite specific types applied to their names.

Finally, the analysis of the COP21 news in the *Bangkok Post* signifies the influence of “*typification of news*” (Tuchman 1980) on the presentation of news. The idea of typification of news is concerned with the fact that the emergence of such events and newsgathering practices are conditions of applying particular narratives into the news story. In other words, the way that journalists gather some facts of any occurrence are significant to the production of news. Some occurrences that own immediacy can be framed into hard news style, while others that have less immediacy are usually written in soft news style. Therefore, categorising news reports into hard-news and soft-news relates to the practices of newsgathering.

In terms of the COP21 news agenda, the event of ratifying the Paris Agreement is an immediacy event. Therefore, the *Bangkok Post* employed a hard news narrative to signify the newsworthiness of immediacy. However, the Paris Agreement has a global impact and relates to complicating factors such as the energy policy of Thailand. In consequence, the structure of 5W and H is too rigid to deliver these complex realities which concern the social and economic issues of Thailand. This complex issue thus requires a news narrative that is flexible enough to link the Paris Agreement with specific context. Moreover, there is the need to employ the narrative that can convey integrated ideas from a number of areas such as ecology, science, and economics. Therefore, the newspaper utilised alternative narratives, which consist of entitled news analysis and special reports to narrate the reality of the Paris Agreement. These news narratives help journalists to maintain newsworthiness, namely timeliness and prominence in the COP21 news story, which it is unable to reach within soft-news narratives. Moreover, the flexibility of the structure allows some facts and claims, which are unable to be reported in hard news narratives, to be presented in the news story; for example, journalists can cover the identity of news sources. In this sense, it seems that dichotomous types of news, namely hard news and soft news, are too limited for dealing with the realities of modern environmental problems.

However, this thesis’s research argues that newswriters are discreet in using alternative news narratives. Concerning the presentation of COP21 news in the *Bangkok Post*, it can be seen that the newspaper differentiates hard news from special reports and news

analysis, although these reports are published on the same news page. Firstly, specific names are assigned to alternative narratives. Moreover, a special layout design is assigned to alternative news narratives, while hard news is reported with general standards that contain the slugs, headline leads and body.

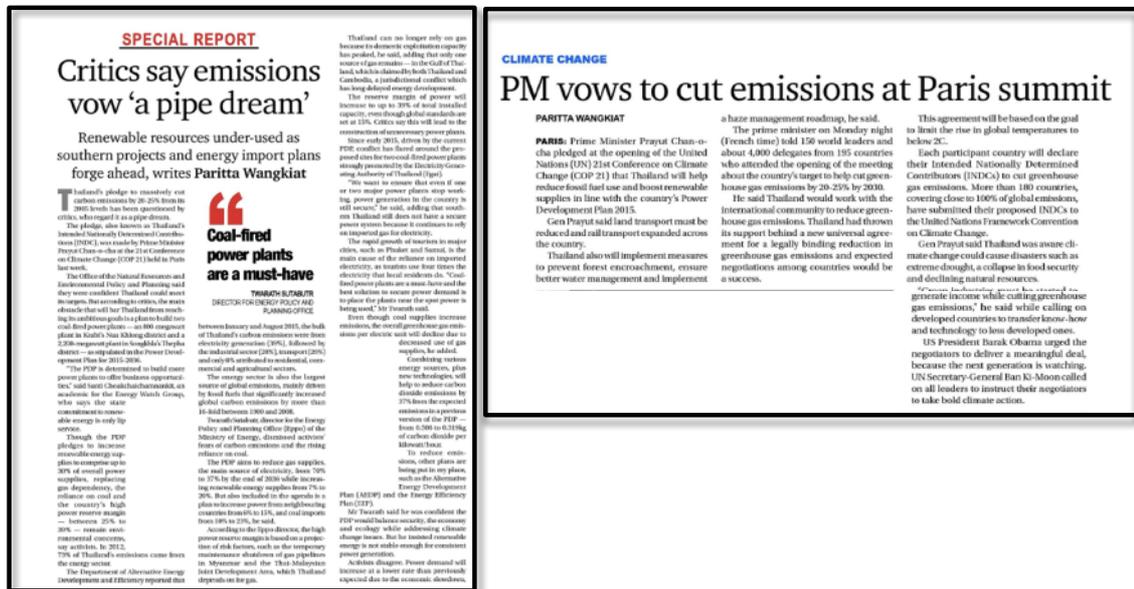


Figure 5.4, Layout design of news article in the *Bangkok Post* page 3, special report (left) and news report (right)

From figure 5.4, it can be seen that elements such as pulled quotes were used in special reports, while the slugs, which are used in news reports, do not appear in special reports. This distinctive layout design thus separates hard news from other news narratives. It might be argued that this distinguishing design aims to draw broad concepts of the articles to the reader; for example, news analysis specifies the depth of facts and less timely characteristics. Nevertheless, this thesis's research argues that the differences between the presentation of hard news narratives and alternative narratives reflect a tendency to reserve journalistic norms of typification of news. To elaborate, objectivity standards and extended newsworthiness are anchored into hard news types. Newswriters thus value hard news as a serious genre of news that contributes to the idealistic meaning of what news should be like. Due to this journalistic norm, navigating from hard news structures leads to risk in compromising professional standards, especially objectivity in reporting. Accordingly, the separation of traditional hard news and other narratives makes it possible for newspapers to present the reality of the COP21 issue comprehensively while the ideal of "news" is still

conserved. For example, the *Bangkok Post* can publish a news analysis of COP21, which is not hard news narrative, on the front page (appendix 14).

5.3.4 Challenging of reporting news related to climate change in Thailand

According to the analysis from three newspapers during seven months, textual analysis evidences that journalistic values are constrained in presenting climate change issues comprehensively. A number of factors related to the production process are involved in the way that journalists present the climate change issue in the COP21 news agenda. Concerning the downturn of environment journalism in Thailand, newswriters lack expertise in environmental issues because daily newspapers have dismissed their environmental news desks. This problem leads to a predominance of official sources in news related to climate change, since newswriters do not possess sufficient skills in environmental newsgathering. Two news articles in *Krungthepturakit* evidence this characteristic of environmental news that is produced by general journalists (see figure 5.5).



Figure 5.5, Left - the article in *Krungthepturakit* newspaper published in the section ‘social-community and environment’ 27 July 2015 (appendix 29). Right - the article in *Krungthepturakit* newspaper published in the section ‘social-community and environment’ 19 August 2015

The news article on 27 July 2015 reports on the conference, “Capability development to a low carbon society in the Southeast Asian region”, organised by the Climate Change International Technical and Training Centre (CITC), TGO. The article relies on the comments of Thai official presenters who address the government’s policies, while other ideas to improve the capability of the region to become a low carbon society are not mentioned in the article. In consequence, news related to climate change is reported in hard news

style, being event-oriented. Moreover, churnalism, which is found in the COP21 news in *Thairath* and the main section of *Krungthepturakit*, is utilised when daily newspapers have fewer resources to produce news related to climate change (see discussion about churnalism in section 6.6).

Furthermore, the representation of climate change in three daily newspapers attracts queries about the perceptions of newswriters on climate change. Arguably, it seems that newswriters value climate change as a powerful idea which gains attention from the public. This perception seems to dominate other aspects of climate change such as the science of climate change, ecology, and international politics. Concerning the presentation of hard news in the *Bangkok Post*, “climate change” and “global warming” are utilised in the slugs, although there is less information about climate change in the content. It can be argued that these the slugs can secure space for publishing the articles in the news section. Moreover, these slugs can prepare readers to relate the COP21 that took place in Paris with more familiar topics. Accordingly, the issue about perceptions of journalists is investigated further by interview methods (see discussion in Chapter 6).

In the light of previous analysis, this thesis’s research argues that it is essential to improve environmental journalistic skills in order to cope with modern environmental risks. Moreover, rethinking of news narrative and practicality of newsgathering is a necessity for representing modern environmental problems such as climate change and its consequences. The analysis of the COP21 news in the *Bangkok Post*, especially special reports and news analysis, illustrates that journalists can challenge journalistic conventions in news narratives to pursue alternative ways in presenting the COP21 news agenda on the front page. It can be seen that the special reports and news analysis in the *Bangkok Post* include the relevant context and situation of Thailand. Importantly, news narratives embed particular environmental truth-claims that are reflected in its news structure (see discussion in section 5.4). Despite critiques from scholars (Tuchman 1980) that the news production process is bureaucratic and newswriters are governed by professional standards, this finding shows that journalists negotiate with the standard of their news production. Arguably, the newswriters acknowledge limitations of hard news that complement objective standards and, therefore, they employ a special reporting style and news analysis style to succeed those limitations in their newsworks. This negotiation evidently shows creativity of the journalists as an active agent in newsworks. Manning (2001) contended the idea that the key issue is to

what extent news organisations' structures allow them to negotiate with particular barriers and to act creatively. This issue is discussed further to investigate the impact of alternative narratives to environmental truth-claims in news related to climate change (see section 5.4).

To summarise, this section demonstrates news narrative styles of the COP21 coverage from three newspapers. The examination shows that news routine in daily newspaper results in churnalism and superficial content in episodic frames shown in *Thairath* and *Krungthepturakit*. Moreover, a hard news style with 5W and H structure is employed to complement objectivity standards when there is a necessity to deal with complex events within the deadline. In consequence, climate change is represented partially in hard news about the COP21. On the contrary, the *Bangkok Post* utilises alternative styles of narrative, which are more flexible, to engage the COP21 with important issues in the context of Thailand. In doing so, the presentation of news reflects a tendency to reserve journalistic norms in typification of news, which relates to the conservation of professional standards. In this light, the researcher argues that the representation of news events related to climate change is the interplay between the accountability to reserve professional standards and constrains factors in the production process such as news routine, resources, and skills of newswriters. Moreover, the findings evidently demonstrate that newswriters are rather active actors, who negotiate with particular constraints in the profession to create news stories that are suited to modern environmental issues.

This finding also addresses the question of the implications of particular news narratives to the representation of climate change and other environmental issues. The following section emphasises the analysis of news scoops related to climate change such as news analysis and special reports. The purpose of this analysis is to answer in detail what environmental issues (and in which dimension) are manifested in alternative news narratives. In doing so, the articles, which are not limited to the COP21 news, in the *Bangkok Post* and the *Green Report* are thus brought to the analysis.

5.4 News narratives and embedded environmental truth-claims in news related to climate change

This section discusses narrative styles utilised in specific types of news articles, and is intended to answer research question 1: “to what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers?” According to the discussion in the previous section (5.3), particular types of narrative, namely special reports, analyses, and columns, convey distinct representations of climate change. This section thus further provides a close analysis of these alternative styles in news related to climate change to investigate environmental truth-claims embedded in news articles. The following sub-sections discuss four articles, which report a global warming lawsuit, Thai fishermen affected by climate change, and the COP21, as well as the discussion of their implications to representations of climate change.

5.4.1 Global warming justice and the unspeakable fact of forest encroachment

The special report was published on page 2 of the *Bangkok Post* newspaper with the headline, “climate justice pack punch”. The newspaper also provided a hard news article about the global warming lawsuit on the same page (see figure 5.6).



Figure 5.6, Hard news published in the *Bangkok Post* newspaper 28 September 2015, page 2 (top left) (appendix 22)

In comparison, hard news that uses an inverted pyramid structure features comments of high-profile NGOs and activists who challenged environmental justice in this lawsuit. On the contrary, the special report (see figure 5.7) begins its first paragraph with the situation of the defendant in the lawsuit. The lead mentions that

Chada Chuthing, 54, came away from the administrative court in July facing almost certain bankruptcy. And she thinks she has an inflexible bureaucracy, and the climate, to blame. Her face paled and palms started to sweat when the court read out its decision²⁷.

News actors who are accused of causing global warming were prioritised at the beginning of the news story. Afterwards, backgrounds of accusation, encroachment, and consequences are offered. This story mentions that compensation for causing global warming is a penalty of THB 1.5 million (approximately GBP 34,000). Later, the special report is balanced with the viewpoint of a former official in the forest conservation department who was the developer of the compensation model. Finally, the article provides a critical view from academics that this climate change lawsuit is illegitimate because it allows double standards in enforcement towards villagers compared with that towards industrial manufacturers. Furthermore, photographs and graphics are employed to illustrate particular environmental claims in a special report. A 30 column-inch full-colour image, that portrays huge hidden logs in overgrown bushes is located at the beginning of article with the caption:

A large tree is cut down in a forest where watersheds are located in the Ban Khai district of Rayong. Residents, reportedly backed by businessmen and politicians, cleared the forest to grow rubber trees and cash crops.

This caption contains ambiguous information, for example, using “residents”, “businessmen”, and “politicians” instead of referring to specific people. In addition, this information appears without identifiable news sources. Similarly, the image is not of the encroaching area mentioned in the global warming lawsuit. This picture portraying illegal loggings is taken from elsewhere.

Accordingly, this special report delivers extended facts and embedded environmental claims, which are unable to be delivered within a hard news narrative, especially facts that are not gained from expert comments. In this case, the narrative prioritises the difficulties of

²⁷ from “Climate Change Pack Punch”, *Bangkok Post* 28 September 2015, page 2.

villagers who are defendants in the law case. Moreover, the publication of news reports and special reports of this single event on the same day implies that newswriters realised the limitations of hard news narratives and acknowledged the benefits of using special report narratives. Arguably, it seems that journalists need to deliver facts and ideas that are unable to be included into an inverted pyramid standard, for example, omitting news sources.

SPECIAL REPORT



Climate justice packs punch

A large tree in a forest in a forest where waterfalls are located in Ban that district of Banang. Residents, reportedly backed by businessmen and politicians, cleared the forest to plant rubber trees and cashew crops, causing damage.

Experts differ on how encroachers must pay for harm they cause, write Apinya Wipatayotin and Achara Ashayagachat

Childs Charking, 54, came away from the Administrative Court in July being almost certain his case would be dismissed. He has an inkblot on his forehead, a mark of a defendant in a law case.

He is being persuaded financially by logging cut rubber, naturally grown forest trees, and replanting them with cashew crops. The practice costs the forest of its richness and ecological services, remains measured by the department to justify decreasing "compensation" from law, according to forestry authorities.

However, the encroachers, many of whom have no land of their own, are logging, argued the forest was already in a deteriorated state with few precious trees left standing when they arrived in 1985. No Chalks know why they logging

in July did not order the department's method of calculation to be changed, meaning the encroachers are still liable to meet the compensation demanded.

The financial penalty imposed on these encroachers, also known as "climate change compensation" was first introduced in 2004.

It calculates in monetary terms the damage and loss resulting from deforestation which forest encroachment causes to the ecological system.

More than 100 cases of forest encroachment, involving those involving agricultural encroachment, have been resolved for the climate change compensation.

An encroacher once ruled guilty by the court, must pay a penalty fee to the department as compensation for causing the forest ecology and the climate.

Purged 10,000 hectares of forest, a national natural park official who played a part in advising the compensation needed in 2007, said the change was intended to create justice.

The compensation had been around long before the case to resolve the national park agency had the previous calculation method had been criticised as inflated as the encroachers were charged with inflated compensation rate of 150,000 baht per hectare, regardless of what type of forest they encroached on and whether there were trees on the land.

The second factor of the forest land had been here before the encroachers came to occupy it.

The reality on the ground complicated the method of calculation for compensation.

For example, those criteria were not clearly identified, unclear to the public, and his calculation, Mr. Prayudh said.

The first criteria is whether the encroachment has impacted the natural richness of the forest, lowered or wiped out specific trees and wildlife animals in specific areas, or damaged the soil quality or disrupted the groundwater.

The second is whether the peaching has caused for the worse the ecological balance between the forest trees and the ground temperature and the amount of precipitation as well as the soil's capacity to absorb water. A third criteria is whether the encroachment has impacted the "top of forest services to humans" such as the forest's ability to regulate temperature, water cycle and to store carbon people's lives, and result in a decrease in water, wildlife and plants.

Calculating the compensation questioned the criteria, especially if it is not practical or even possible to put a price on the relationship between the temperature and rainfall. However, the park department has come up with compensation figures for losses or destruction to specific types of forest with damage to the climate also included.

The compensation covers the damage to the public forest (natural forest or evergreen hill forest), the public forest (open area forest) and the public forest (dry evergreen or semi-evergreen forest) ranges between 1,800 to 20,000 baht per hectare.

For damage to the public forest (natural deciduous forest), the compensation is between 2,047 to 7,700 baht per hectare and for the public forest (dry evergreen forest), the compensation is 1,800 to 20,000 baht per hectare.

However, the encroachers are charged depends on the nature of damage they have made to the ecology of the forest and the value of the forest trees, as well as how much the difference is of disrupting the trees about the forest about the soil which had degraded.

When trees are cut down there is nothing to absorb carbon dioxide, its cause carbon dioxide goes into the atmosphere, it worsens the greenhouse effect.

Many forests with the highest compensation prices are also prime waterheds and the origin of major rivers. It means the compensation amounts do not only compare to result in the elevation of the forests above sea level at what previous or low rates were set.

Mr. Prayudh said that and burning forest land, including rain forest, pine, eucalyptus, and other plants species, for example, has caused extensive damage to forest ecology.

He said a study conducted that rubber trees, if planted in high rain forest areas, can lead to a sharp drop in groundwater.

"The plan Chalks and other farmers the change of calculation method was already in mind and it is necessary to ensure its accuracy and reliability."

"Every step of the calculation is scientific and measurable. This is why the court is willing to listen to our reasons. In fact, the court applied the method in a manner that is not different from our methods. It is not a matter of method," he said.

Many developed countries follow a principle in which the government is obliged to replant trees (such as Thailand, Japan) which are cut down from the forest.

“ Every step of the calculation is scientific and measurable. ”

PONGSAK WITTHANACHITWITOL
REFORMER OF CLIMATE JUSTICE COMPENSATION MODEL

COMPENSATION BY FOREST TYPE

Forest Type	Compensation (Baht/Hectare)
Public Hill Forest	1,800 - 20,000
Public Forest (Open Area)	2,047 - 7,700
Public Forest (Dry Evergreen)	1,800 - 20,000
Public Forest (Semi-Evergreen)	1,800 - 20,000

www.doe.go.th/forest-ecology-and-biodiversity

Figure 5.7, Special report published in the *Bangkok Post* newspaper 28 September 2015, page 2 (top right)

The analysis of this special report evidences that the narrative enables environmental claims, which journalists are eager to incorporate into daily newspapers without compromising journalistic standards. Arguably, the special report claims that the forest encroachment problem is not simply caused by loggers who reside in communities around forest areas. Forest encroachment is involved with corruption in the bureaucratic system. This environmental claim is unable to be reported straight away in inverted pyramid news without identifiable news sources to maintain objectivity standards.

Concerning environmental conservation in Thailand, illegal logging is an important factor in decreasing forest areas. While loggers have been caught in the act, police have never had enough evidence that leads to the powerful people who masterminded this illegal activity. In relation to this situation, news and news images which show police arrests over illegal loggings are regularly reported in daily newspapers, especially in local news sections.

the newspaper. Arguably, editorial teams published this article in the main section that normally focuses on hard news, instead of placing this story in the feature section²⁸ so that the reader can find this news story among other hard news in the main section, although it has a distinct narrative style.

This report presents the phenomenon of unusual sea levels and climate, which is affecting local fishermen in Thailand. The news story started with a quotation from a local fishermen as an eyewitness to the changing patterns of monsoons. The news story further portrays difficulties in fishing, which scientists confirm has resulted from climate change. Also, the report concludes with the comments from a local fisherman, who has observed the changing patterns of the sea. The fisherman articulated inherited local wisdom in the following extract:

It was supposed to be a sunny day in the summer of 2013, but Sompong Pannoi recalled the storm that abruptly hit the coast of Prachuab Kirikan's Khan Kradai Bay and damaged over 30 boats. "It doesn't seem to be the sea we used to know", said the 41-year-old fisherman who usually fishes no further than 20 km from the shore. [...] While scientific methodology clarifies winds in only two directions, northeast and southwest, fishermen know there are 12 passages which have been passed down through unwritten lore. [...] It is likely to come from the northwest while combining with all 12 passages at once... a kind of extreme wind that will end the world.

This narrative does not merely show that the impact of climate change is hitting people in rural areas, but it presents the particular way that local fishermen make sense of environmental change from climate change. Despite scientific discourses made by experts, who are usually referred to in news about climate change, this news story features scientific comments with environmental knowledge that is local wisdom. Since the fishermen are included as commentators, there are more than scientific discourses in the news but folklore and local observation have become the facts that define the reality of climate change. In this sense, this representation expands the definition of climate change beyond the primary definition of the expert. Moreover, lay people can be further engaged with climate change discourse instead of being merely eyewitnesses. In other words, this inclusive presentation can contribute to the perception that lay people are active actors in solving the climate

²⁸ The *Bangkok Post* comprises of three main broadsheets published separately in a day. The first section, called 'the Main Book', regularly reports hard news and op-ed, while the second section reports specifically business and finance news. The last section called the Magazine includes features, soft-news, sport and entertainment news.

change problem. This means that the narrative is beneficial to the idea of adaptation, which is vital to tropical countries such as Thailand.

Accordingly, the position and narrative of this news story shows the flexibility in the editorial activity of the newsroom. The analysis thus insists that negotiation of journalists during the editorial process is possible, despite the claim that newswork is bureaucratic. This thesis's research argues that practicality in newsgathering is not definitely determined by journalistic values. On the contrary, journalists' experience and perception of climate change, as well as their accountability to the journalism profession, influence newsgathering processes. By this, I mean that journalists can explore opportunities to construct climate change stories creatively. Meanwhile they need to maintain journalistic standards. As a result, journalists inevitably deal with both internal and external challenges in covering climate change news comprehensively. However, news policy is crucial to grant the diversification of news narrative and position on the news page.

In terms of public perception of climate change, this thesis's research argues that introducing the climate change issue into local situations contributes to climate change literacy in society. Concrete problems in local areas show the urgency of climate change anticipation and make climate change more approachable. Moreover, inclusive representation in news stories engages actors who are not limited to powerful institutions in Thailand to climate change problems. Especially, the voice of people who are directly affected by climate change is addressed in the news story. This representation is essential in raising awareness of climate change adaptation.

Finally, it has been noted that two news articles, which report the global warming lawsuit and the effects of climate change on Thai fishermen, signifies the particular position of environmental news in the *Bangkok Post*. Arguably, it seems that the newspaper focuses on difficulties of people in rural areas who are living among the destruction of the environment. The special report of the global warming lawsuit depicts the troubles of communities as a result of unjust environmental laws. Similarly, the other special report of climate change exhibits the hardships that fishermen are facing because of the changing patterns of monsoons. In other words, the newspaper apparently claims that the climate change problem causes suffering to people in remote areas. Nevertheless, the factor that induces this claim is ambiguity, such as the background of reporters from environmental

news beats. This claim might be associated with particular prejudices inherited from the practices of the news beat. This issue is thus discussed further with the findings from interview sessions in Chapter 6.

5.4.3 Mitigation or adaptation: dichotomous aspects to climate change anticipation in the COP21 news

This sub-section demonstrates the analysis that compares the COP21 news articles in the *Bangkok Post* and *Krungthepturakit*. The two newspapers framed the event and delivered claims related to climate change differently. The *Bangkok Post* published a front-page news analysis on the day that the COP21 reached consensus (appendix 14). The *Green Report* that covered the COP21 issue was launched ten days afterwards (appendix 10-11, 16). Moreover, the *Bangkok Post* had their reporter in the meeting in Paris but *Krungthepturakit* used local sources. Accordingly, the two newspapers have distinct limitations in their newsrooms.

In terms of the *Bangkok Post*, the newspaper associates the event with the emissions situation in the country, instead of simply reporting the outcome of the COP21. The article provides a viewpoint to the controversial Power Development Plan 2015 that proposed investment in coal-fired power plants. It was mentioned in the headline; “Govt feels heat on climate deal. Analysis: Analysts say focus on coal, megaprojects imperil Thai targets under global pack” (see appendix 14). Its content does not specify who are ‘the analysts’ mentioned in the headline. The news lead emphasises the difficulty of the country in obligating to the Paris Agreement without revealing its news sources. It was mentioned that the information is from the observer at the COP21 meeting:

Thailand still has much to do after the global community agreed to the first universal, legally binding deal to stop global warming and is looking forward to collaborating in next-year’s climate talks as chair of the G77, observers say. Adopted by the 195 parties to the United Nations Framework Convention on Climate Change (UNFCCC) on Saturday night in Le Bourget near Paris, France, the new climate agreement set a long-term goal to shift to a zero-carbon economy after two weeks of intense negotiations. (my underlining)

Moreover, the news body begins with related background to the COP21 before providing comments from Thai authorities. The news story reports two sides of opinion towards PDP2015. While pro-PDP 2015 arguments were ascribed to specific governmental sources, the opposing arguments were made anonymously.

To elaborate, the news story first provides the arguments from Thai officers who accept that committing to 25% reduction in greenhouse gases is a challenging goal for the Thai Government. However, they claim that activating PDP 2015 will increase renewable energy in the country. Additionally, implementing coal power plants that ensure energy security will not affect overall mitigation goals because of emission capture technology. Despite these claims, the news story points out that the government has no intention of developing green energy. It was mentioned that green activists and communities are opposed to national energy policies because the PDP2015 will, in fact, swap national energy dependency from gas to hydropower, as well as coal energy being increased from 10% to 25%. According to this narrative, the *Bangkok Post* states the controversial issue of PDP2015 by referring to general criticism in society without identifiable sources. That is to say, journalists referred to “green activists and communities” in order to claim that the government policy is, in fact, the main obstacle against developing renewable energy in the country.

While the claim related to PDP2015 is raised specifically by the *Bangkok Post*, the *Green Report* claims that Thailand is moving in the wrong direction to confront climate change. News scoops argue that the country should focus on climate change adaptation rather than carbon mitigation. This argument is backed up by the comments of a scientist who offers the background to and context of the Paris Agreement, as well as risks in climate change. In addition, the expert linked the idea of global environmental risk to local examples. The expert mentioned that rice farming is the most vulnerable agricultural sector in Thailand.

Kantree Boonprakob, advisor to TGO, and a scientist from Ramkhamhang University, said that Thailand should reform climate change policy structures by applying the UNFCCC model [...] This is because this information is based on thousands of academic reports about climate change that are approved by the expert [...] global warming is about scientific policies which require strong supported knowledge. Thailand is weak in this matter and we tend to use feelings to produce the climate change policies without academic data [...] IPCC expresses concerns in adaptation to climate change of developing countries. In terms of Thailand, climate change affects ecological systems, food security, coastal areas and hygiene standards. For example, rice farming is in a vulnerable situation. We need to find solutions and

promote understanding about its response to rising temperatures. Also, improving endurance of the rice gene is important.²⁹

In terms of graphics, several images portraying environmental damage are presented randomly, such as drought, harsh storms, and floods. Also, the scoop that reports specifically the finalisation of the COP21 is combined with images of the Prime Minister in the conference room.

In light of this analysis, the COP21 news agenda in the *Green Report* is dominated by expert sources. In comparison to the *Bangkok Post*, COP21 news scoops in the *Green Report* rely more on the opinions of the elite classes, politicians and officers. The voice from lay people who are at risk from climate change, such as people in rural areas, is not present in the *Green Report* news scoop. This representation reflects inadequate sources and information to present climate change problems inclusively, although the *Green Report* is not limited by time constraints because it is a monthly publication. Accordingly, the analysis shows that the predominance of experts in news is not enacted entirely from news routines. On the contrary, powerful news sources apparently access news media for particular reasons, including the perception of institutional sources by journalists.

This thesis's research thus argues that it is not merely news routines which pressure journalists to rely on the experts. The findings indicate journalistic prejudice in source selection. Concerning the intention of the *Green Report* which aimed to present environmental issues in alternative and inclusive ways, the newspaper is able to reflect multidimensional viewpoints in the COP21 news. However, it seems that the weak experience of the editorial team, which is keen on business news, in covering climate change issues has limited their choice of news sources. The team thus used their expertise, cultivated from reporting business news, to frame news scoops. In doing so, managerial discourse and scientific discourse are preferable for explanation of the COP21 news agenda. Therefore, journalists value expert sources over lay people in this news agenda. Finally, the events and issues related to climate change, specifically the COP21, are explained solely from the experts' points of view.

²⁹ excerpt from "Thai-IPCC หนทางสู่โลกที่อ่อน" (Thai-IPCC Hon Tang Su Lok Ron), *Green Report*, December 2015, p.7 (appendix 11)

Regarding the context of Thailand, expert discourse about climate change has influenced Thai society. Due to the fact that knowledge about nature and environmental knowledge are varied along sociocultural differences. A number of traditional ways of handling nature and environment are found in Thailand where diverse geographies impact on a spectrum of wisdom about nature. However, environmental issues in serious news media, namely hard news, are featured merely with scientific and managerial explanations. Meanwhile, other environmental discourses, for example traditional ways and local adaptation, are instead presented in soft-news. In this sense, news media are actively increasing normalisation of scientific knowledge of the environment - that is to say, knowledge about environment and nature is dominated by scientific and managerial explanations. Meanwhile, local wisdom is briefly mentioned in news content as providing alternative approaches to understanding the environmental problems in the country.

Furthermore, news media play an important role in associating scientific discourse with powerful institutions in Thailand. Scientific discourse empowers discursive practices of the elite class, in particular expert discourse in climate change news reports. It can be seen that news media portray climate change anticipation as a decision made by elite people, while the middle class and working class are required to participate with top-down climate policies. Importantly, claim makers such as government agents and huge corporations usually advance environmental science discourse to legitimise their environmental practices. This claim-making makes the headline in mainstream news media rather than the voice of ordinary people in society. This predominance is a vital issue for environmental justice in Thailand where income inequality has been increasing from failures in the educational system (World Bank Organisation n.d.). For example, the predominance of environmental science discourse is reflected in the global warming lawsuit (see detail in section 5.2.1 the global warming lawsuit).

In addition, representing climate change with scientific discourse, and discarding local ideas, can undermine opportunities to encourage climate change adaptation activity, which is diverse and depends on specific geographic locations. By this, I do not mean that science is not the solution to climate change adaptation. On the contrary, scientific knowledge is fundamental in tackling climate change. The knowledge should be applied distinctively for practicality in specific areas affected by climate change. However, challenges arising from

the political situation in Thailand are paramount to integrate scientific knowledge and climate change adaptation countrywide. To elaborate, Thailand is a centralised state. Especially after the recent coup d'état in 2014, the military government announced a new constitution which disempowered local governments' functions³⁰ in the country (ilaw 2017). This situation thus increases inequality in education and literacy development in suburban areas. The consequences of this inequality are not merely educational lacking behind in rural areas, but also scientific education overall. While over THB 63 billion per year has been invested into research and developmental activities in Thailand, this academic research has been kept shelved, especially environmental and agricultural research (National Research Council of Thailand 2017).

In relation to climate change, scientific research that examines disaster management has been initiated from central departments without integrating local thought, for example, the strategic plan of the Ministry of Environment and Natural Resources (see details in section 3.2). This detachment of scientists from reality in local areas results in a great deal of scientific reportage although the technology is often impractical. Importantly, initiating adaptation to climate change is impossible without comprehension of particular contexts.

Accordingly, this thesis's research points out that the pervasiveness of science discourse in news media cannot encourage adaptation to climate change in Thailand. The news scoop in the *Green Report*, for example, employs scientific discourse to emphasis the environmental effects of climate change but leaves out the contribution of science to climate change adaptation. Even though it is claimed that adaptation is a vital issue for Thailand, this argument is, in fact, based on comments made by the elite. The information that reflects current adaptation capability in the country is not shown in news scoops. Therefore, it seems that scientific discourse in news is merely the reflection of the centralisation of climate policy in Thailand that increases top-down approaches to climate change management in the country.

³⁰ Since 1997, Thailand had divided its public administration into central government and local governments. While central government came from elections and was appointed under The Royal Prerogative, the local governments were elected directly by the residents in the area. Local government administration is combined with two layers, provincial local government (Jangwad) and sub-district local government (Tambon). Recently, sub-district local government administration has been dismissed by the new constitution of Thailand. It is still uncertain that the military government will propose other administrative structures.

Finally, the investigation indicates journalistic prejudice in news related to climate change. The differences in framing of the COP21 news in the *Bangkok Post* and the *Green Report* show that journalists have learnt from their experience in the news beat to frame news agendas differently. This accumulative experience thus conveys journalistic prejudice embedded within distinct news beats. On the one hand, business news prioritises scientific and managerial discourse in presenting environmental news. On the other hand, environmental news beats exhibit inequality to access environmental justice and conflict in natural resource management. It seems that this conflict is the heritage of environmental news beats that own their root with scandal and conflict issues in the country (see the development of environmental news beats in section 3.3). To illustrate, the presentation of COP21 news in the *Green Report* points to environmental problems enacted by climate change. In order to solve the problem, it needs scientific and environmental management. For example, the *Green Report* provides the headline: “Thai-IPCC path way to fight global warming”³¹. The report also mentions a speech made by a scientist:

Kantree Boonprakob, advisor to TGO, and the scientist from Ramkhamhang University said that Thailand should reform climate change policy structure by applying the UNFCCC model [...] This is because this information is based on thousands of academic reports about climate change that are approved by experts [...] global warming is about scientific policies which require strong supported knowledge. Thailand is weak in this matter and we tend to use feelings to produce the climate change policy without academic data [...] IPCC expresses concerns about adaptation to climate change of developing countries. In terms of Thailand, climate change affects ecological systems, food security, coastal areas and hygiene standards. For example, rice farming is in a vulnerable situation. We need to find solutions and raise understanding about their response to rising temperatures. Also, improving endurance of the rice gene is important.³²

Conversely, the *Bangkok Post* connects the COP21 with controversial coal-fired power plant investment in the country. The newspaper claims that government policy is the obstacle to developing renewable energy in the country; for instance, headlines and sub-headlines are utilised in the news analysis and special report;

³¹ author's translation from “Thai-IPCC หนทางสู้โลกร้อน” (Thai-IPCC Hon Tang Su Lok Ron), *Green Report*, December 2015, p.7 (see appendix 11)

³² excerpt from “Thai-IPCC หนทางสู้โลกร้อน” (Thai-IPCC Hon Tang Su Lok Ron), *Green Report*, December 2015, p.7 (see appendix 11)

*'Critics say emissions vow 'a pipe dream' Renewable resources under-used as southern projects and energy import plans forge ahead'*³³

'Govt feels heat on climate deal. Analysis: Analysts say focus on coal megaprojects imperils Thai targets under global pact'.³⁴

In order to investigate further about journalistic prejudice, the discussion based on interview methods is provided in section 6.4.2.

In sum, this section shows that alternative news narratives, either special reports or news analysis, present environmental claims in newspapers. Despite the inverted pyramid style, using this narrative allows journalists to omit particular journalistic standards in hard news but maintains the norms of objective and immediate senses of news stories. For instance, some environmental facts and claims that are sensitive can be presented anonymously in news leads or bodies. Therefore, these types of news narratives can be produced with less dependency on the idea of the “web of facticity”. This thesis’s research argues that this flexibility of news narratives reflects the capability of newswriters in negotiation with journalistic standards. Arguably, the journalists are active in presenting environmental topics creatively within the pressured conditions of news production processes. However, it is unclear to what extent news policy can influence this capability of newswriters.

Moreover, the examination of news related to climate change from three newspapers shows environmental claims that are embedded in news, for example, inequality to access environmental justice in Thailand, corruption problems, and others. These claims are discussed in further detail in section 5.7. In terms of the COP21, the issue of controversy in coal-fired power plant investment is raised to engage with this international conference when the agenda is presented by environmental journalists.

Meanwhile, business news media advance the claim that climate change adaptation should be prioritised in the country. In this light, this thesis’s research argues that particular journalistic prejudice inherited in the news beats plays an important role in the representation

³³ *Bangkok Post*, 5 December 2015, p.5

³⁴ *Bangkok Post*, 14 December 2015, front page

of climate change in news. This journalistic prejudice also influences the selectivity of news sources in environmental news. In consequence, scientific discourse in news media becomes a crucial tool of elite claim makers to justify their environmental practices in Thai society

5.5 Newsworthiness and implications of representation of climate change in Thai society

This section aims to identify particular aspects of climate change which are emphasised in news reports. The discussion is to answer research question 1: ‘to what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers?’ The section is separated into three main sub-sections. The first sub-section is a discussion of newsworthiness that is embedded in hard news related to climate change over seven months. The analysis of headline, lead, and the elements that are prioritised in 5W and H structure are brought to discussion. The second sub-section discusses the implications of climate change issues, which are emphasized in hard news narratives, to environmental discourses. The findings derive from analyses of environmental claims in news related to climate change, which are brought to discussion in the backdrop of the environmental situation in the country. The arguments are supported with examples from issue-oriented news articles.

5.5.1 Prominence and impact newsworthiness in hard news reports related to climate change

According to the analysis from three newspapers, the findings evidence that the representation of climate change in hard news is influenced by accountability to newsworthiness. This journalistic norm accentuates the fact that climate change is important because it has deadly effects on global ecology and this leads to global negotiation. Due to the structure of the inverted pyramid, journalists need to select one single aspect of the event to feature in the headline and lead. While this aspect is highlighted, others such as risk, conflict, and local dimension are discarded from news stories. The analysis of newsworthiness emphasized in news related to climate change is illustrated in the following sub-sections.

5.5.1.1 Prominence of politicians

The analysis of news related to climate change shows that the prominence of politicians is utilised to increase newsworthiness in hard news narratives. In terms of the COP21 news agenda, it can be seen that actions and comments of politicians tend to occur at the beginning of news structures. The investigation shows that hard news on the front-pages presented political conflict that related to the COP21 rather than climate change politics; that is to say, news reports focus on a political situation that connects to climate change and the COP21. The following examples illustrate the prominence of politicians in the COP21 news agenda.

Case 1: the COP21 agenda and illegitimacy of fiscal spending

Thairath published front-page news that reported the controversy of budget approval for attending the COP21 meeting of the officials. The headline mentioned “MNRE flocks to France, 81 personnel join global warming meeting, request from cabinet ‘About 20 Million’. Stunt! MNRE prepare to propose 20 million baht for carrying 81 executives and officials from 27 departments to Paris” (see figure 5.9)³⁵. This report criticised the huge amount of budget and excessive numbers of official participants at the COP21. However, the story neither mentions the significance of the COP21 to climate change mitigation, nor its relevant impact on Thailand. It can be seen that the headline intensifies the story and hints at political conflict by using strong words such as, “flock”, “request from cabinet 20 million”, and “Stunt!”

³⁵ author translations from “ทศ ยกโขยงไปฝรั่งเศส .81 คน ประชุมโลกร้อน ขอครม .เกือบ 20 ล้าน” (Tor Sor. Yok Ka Yong Pai Farangsed 81 Kon Pra Chum Lok Ron Kor KoRoMo ‘Keub 20 Lan’), *Thairath* 16 November 2015, p.1, appendix 17



Figure 5.9, Front-page article in *Thairath* that criticises budget spending for traveling to the COP21 meeting

Accordingly, newsworthiness is emphasised by using prominence in political conflicts of the illegitimacy of fiscal spending.

Case 2: Prime Minister in the COP21 meeting

The photograph of the Prime Minister of Thailand laying flowers for the victims of the Paris attack was published on the front page of the *Bangkok Post* newspaper on 2 December 2015 (see figure 5.3). The newspaper also reported the mission of the PM in Paris on the inner pages. The headline mentions that the “PM vows to cut emissions at Paris summit”. However, this hard news report is allocated six paragraphs for statements of Thailand’s Prime Minister on the climate policies of the country. The last paragraph was quoted from the statements of the US President and UN Secretary-General. Moreover, the context of COP21 is omitted from the report.

According to these reports that were published on local news pages, climate change and the matter of the COP21 meeting are not focal points in hard news reports. On the contrary, the significance of climate change is tied up with the prominence of political actors. Arguably, climate change is represented in hard news as the event which involved global politics. Nevertheless, the aspect of climate change politics is not provided in hard news narratives.

Regarding the COP21 news on international news pages, the analysis evidences that newsworthiness, especially, “reference to the elite” increasingly influences the narratives of

news reports. Regarding the reports of agreement finalisation, the prominence of politicians from powerful countries is reflected in the news structure. Moreover, the opinions of celebrity politicians such as the President of the United States, the Prime Minister of China, and the UN secretariat dominates Thai politics. For example, the report in *Krungthepturakit* mentions in its headline, “195 nations agree to limit world temperature below ‘1.5’ ”³⁶. This news report includes opinions from the President of the US and other famous foreign analysts but there is no opinion from Thai representatives. In this sense, the findings reflect that prominence of actors in the event is the most important concern to illustrate the newsworthiness of such an event. It can be argued that the prominence of political actors in the COP21 news can ensure coverage of the COP21. Accordingly, the COP21 agenda is highlighted by addressing “who” but omitting others such as “what”, “why” and “how” in 5W and H structure.

In this sense, this thesis’s research argues that implications of newsworthiness in hard news reports diminish the essence of the COP21 agenda, as well as its effect on overall climate change issues. Due to the attempt to emphasise the prominence of politicians, the COP21 is represented as a political agenda at local and global levels. In consequence, the significance of the COP21 to the environment and economics disappears in hard news reports. Even though it can be argued that the COP21 is not any issue other than that of international politics, it should be acknowledged that climate change politics is complex and engages with a number of issues. While news media prioritise politicians, especially from developed countries, which usually comment on the issue of greenhouse gas release, essential issues of the agreement, such as climate change resilience, aiding funds and climate change immigration are undermined in the COP21 news agenda. The issue of prominence of politicians in the COP21 news also influences the predominance of managerial and bureaucratic discourse in climate change related news. This issue is discussed further in section 5.7.

³⁶ author’s translation from “195 ชาติลงนามคุมอุณหภูมิโลกเพิ่มต่ำกว่า ‘1.5’ ” (195 Chad Long Nam Kum Una Ha Phum Lok Peum Tum Kwa ‘1.5’), *Krungthepturakit* newspaper, 14 December 2015, p.16, appendix 9

5.5.1.2 Impact of climate change effects

The analysis shows that hard news reports from the three newspapers emphasise the dangers of climate change to the global environment. In terms of news images, endangered species are brought to highlight the risks of climate change. However, news images focus instead on iconic animals that are not local inhabitants such as polar bears and whales. Moreover, local environmental effects are not mentioned in news related to climate change.



Figure 5.10, The image of iconic animals in newspapers

Concerning hard news articles, the three newspapers also reported the situation in distant locations such as the melting ice shelf in the North Pole and heatwaves in California. These reports refer to global institutions that publish reports about climate change effects. Furthermore, it can be seen that some news articles neither specified the name of the institution nor the expert. Conversely, it is mentioned that the research was conducted by scientists. This thus reflects journalistic norms in focusing on newsworthiness. For example:

- *Thairath* – “Bad Luck Polar Bear: the scientists are concerned about the living conditions of polar bears at Beauford Sea in Alaska. It has been worrying that they will be unable to adapt to global warming, which is reducing ice shelves where the polar bears feed.”³⁷
- *Thairath* – “Flood risks in global warming: Paris – the study from New South Wales University in Australia, which is published in “Nature Geoscience” on 8 June, shows that rising global temperatures cause heavy rainfall and lead to immediate harsh floods. Scientists have analysed 40,000 storms which took place

³⁷ Excerpt from “หมีขั้วโลกเคราะห์ร้าย” (Mee Kua Lok Kroa Rai), *Thairath*, 21 July 2015, p.7

during 30 years in Australia. The IPCC reports that carbon emissions will increase the rise of global temperatures to 4.8 degrees within 85 years.”³⁸

- *Krungthepturakit* – “Experts warn that extreme weather causes food scarcity: London – Experts warn that extreme weather will frequently increase food scarcity, suggests international collaborative plan. English and American experts warn that extreme weather events such as big storms, droughts and heatwaves will cause food scarcity from climate change and the effects in the food system [...] The report suggests enacting international plans in anticipation of the problem and developing precise forecasts of climate change problems.”³⁹

According to this analysis, the global scale impact of climate change is particularly newsworthy in newspapers. Arguably, it seems that this newsworthiness increases the competitiveness of stories related to climate change over other news agendas on the day. Furthermore, advancing the impact of climate change that is backed up by global institutions reduces the newsgathering process. That is to say, the manifestation of news articles that highlight global impact advanced by global institutions reflects that this aspect of climate change has an adequate impact to gain public acceptance in Thai society. Even though the news content is unlikely to offer proximal value to the readers, it highlights the fact that climate change is a global issue which is agreeable for both journalists and their readers. In relation to the influence of newsworthiness, climate change effects are represented as real and severe, but they take place in distant locations.

5.5.1.3 Climate change issues and ‘common sense’ in solving environmental problems in Thai society

Representation of climate change in the three newspapers reflects the public consensus about climate change in Thai society. Arguably, it can be seen that either climate change solutions or climate change effects are presented in news media as a global agenda. Moreover, this representation is associated with powerful actors. The analysis of the three newspapers shows that climate change is not defined scientifically in the news articles. On the contrary, news actors advance climate change issues within discourse related to politics and social movements. Meanwhile the prominence of the issue is emphasised in news

³⁸ Excerpt from “โลกร้อนเสี่ยงท่วมหนัก” (Lok Ron Sieng Tuam Nak) *Thairath* 11 June 2015, appendix 7

³⁹ Excerpt from “ผู้เชี่ยวชาญเตือนอากาศสุดขีดทำขาดแคลนอาหารรุนแรง” (Pu Cheaw Chan Tuean Akad Sud Kua Tam Kad Klean Ahan Run Rang) *Krungthepturakit* newspaper 15 August 2015 p. 11, see appendix 30

narratives. In this sense, it seems that news media have a vital role in shaping social definitions of climate change in Thai society. In doing so, the power of climate change discourse is enhanced by underpinning the tackling of climate change as a premise to environmental good causes. Importantly, participating in the tackling of climate change concerns the reputation of the country, even though the association of climate change and local environmental effects is not much illustrated in newspapers. Solving climate change seems to be “common sense” in Thai society. This perception is reflected in the presentation of climate change issues in three newspapers in Thailand.

Accordingly, I argue that the representation of climate change in Thai newspapers evidences the power of “*mediascapes*” (Appadurai 1996). Mediascapes contribute to global cultural flow, which is the performance of global mass media resulting in distribution of cultural meanings (further details in section 2.4.2). In terms of climate change issues in Thai newspapers, reproduction of climate change images and content, which is disengaged from the context of Thai society, in news spheres reflects the underlining of cultural hegemony that is embedded within environmental issues. That is to say, commodification of climate change is enacted from the reliance of Thai newsrooms to the international news agencies to supply climate change content. Meanwhile the significance of climate change politics is increasing in global society. The commodification of climate change is thus stimulated from internal factors of news organisations and external factors concerning transnational environmental operations. As a result, the manifestation of climate change issues in Thai newspapers confirms the power of mediascapes to engage the audience in global environmental culture, specifically, Thai society to global environmental movements. On the other hand, this representation of climate change in Thai newspapers confirms that news media have implications to transform environmental issues into cultural products as mentioned by Cottle (2003b).

Nevertheless, I argue that this representation of climate change in newspapers demonstrates the tensions of the “glocal” (Beck 2009) meaning of climate change in Thai society. Textual analysis reveals that the reality of climate change presented in hard news merely contributes to the significance of reducing emissions and environmental effects manifested in the western world. On the contrary, environmental approaches that acknowledge local reality about climate change are absent from the hard news genre. Accordingly, climate change issues in hard news, which embedded the sense of a serious

news genre, are enhancing the status of environmental knowledge in modernization that is defined from western perspectives. Meanwhile, meanings about environment from local aspects are suppressed due to journalistic standards, for example, newsworthiness and news narratives. Accordingly, news media perform their roles in enhancing cultural hegemony in climate change issues in Thai society.

This hegemony in climate change knowledge has repercussions on Thai society. In terms of climate change literacy, the lack of local dimensions in climate change news increases misperceptions about the dangers of climate change, for example, the myth that perceives that climate change is all about hot weather (Chidtaisong 2010). This misperception is associated with the term “ลดโลกร้อน” in Thai, which can be translated as “to reduce global warming”. The term has been used popularly in environmental campaigns in the country because it can be pronounced with only three syllables (Lod-Lok-Ron) (Kaiyoonwong 2009). According to the meaning of this word, people can assume that increasing green areas in the country is a major concern for global warming problems because trees can cool down the temperature. Due to this linguistic difference, climate change issues are associated with the ecological situation rather than its multi-dimensional aspects that relate to politics, economics and environment. Accordingly, this inequality of literacy in science and technology between developed countries and the third world, exhibits “ecological neo-imperialism” (Beck 1999) which is embedded with the meaning of climate change in hard news. This result of the environmental problems in modern society is, in fact, defined to benefit capitalist ideology.

Furthermore, textual analysis of news related to climate change shows that climate change discourse is referred to in local environmental conflicts. The following section discusses the power of climate change discourse that is represented as a global agenda to engage with local environmental topics in daily newspapers.

5.5.2 Embedding global agendas to the dilemmas of developmental policy in Thailand

This section discusses the power of climate change discourse over local environmental agendas in Thailand. The findings derive from analyses of issue-oriented news stories that connect climate change agendas to local environmental issues in Thailand.

Since the previous sub-section indicates that climate change discourse is dispersing in environmental news coverage, this analysis illustrates how journalists employ climate change discourse to justify environmental claims in news stories.

According to the analysis, news related to climate change from three newspapers presents conflict values in the narrative. The actors in the conflict involve groups of people struggling with environmental problems. Table 5.4 summarises news agendas, angles of conflict and actors in conflicts that are found in this analysis.

Table 5.4 demonstrates conflict angles, actors in conflicts that were applied to news cases and the example of news content in the articles.

news agenda	angle of conflict	actor in conflict	example of headline and news content
COP21	rights in economic growth, responsibility over pollution	rich vs poor country	<ul style="list-style-type: none"> • <u>fight against</u> global warming⁴⁰ • underdeveloped countries' efforts to <u>combat</u> climate change⁴¹
PDP2015	power development plan, legitimacy of development policy	state vs environmental activists	<ul style="list-style-type: none"> • MNRE <u>flocks</u> to France, 81 people join global warming meeting, 'About 390,000 GBP' proposed from cabinet⁴² • Greenhouse gases, especially CO2, <u>are blamed</u> for rising of world temperatures [...] agriculture <u>will be</u> further hit by the drought crisis⁴³
extreme weather event	Life and death matters	State vs people, Human vs nature	[...] one million of the three million rai of paddy fields in the Chao Phraya River basin are in irrigation areas [...] the Royal Irrigation Department disputes this. figures [...]
global warming lawsuit	social injustice	state vs environmental activists and communities	<ul style="list-style-type: none"> • 'MJ' rushes in remedy-investigate <u>scandal</u> in 58 areas affected by 'forest harm lawsuits'⁴⁴ • Top court <u>rules against</u> encroachers⁴⁵ • Climate justice <u>packs punch</u>⁴⁶ • Forest harm lawsuits '<u>target poor</u>'⁴⁷

⁴⁰ author's translation from *Thairath* published on 30 November 2015, p. 2, underlining is not original emphasis, appendix 31

⁴¹ author's translation from *Krungthepturakit* published on 14 December 2015, underlining is not original emphasis, appendix 9

⁴² author translation from *Thairath* published on 15 November 2015, page 1, underlining is not original emphasis, appendix 17

⁴³ *Bangkok Post* published on 1 December 2015, page 2, underlining is not original emphasis, appendix 19

⁴⁴ author's translation from *Krungthepturakit* published on 24 June 2015, page 14, underlining is not original emphasis, appendix 18

⁴⁵ *Bangkok Post* published on 14 August 2015, page 2, underlining is not original emphasis, appendix 20

⁴⁶ *Bangkok Post* published on 28 September 2015, page 2, underlining is not original emphasis, appendix 21

⁴⁷ *Bangkok Post* published on 28 September 2015, page 2, underlining is not original emphasis, appendix 22

This presentation reflects the fact that climate change agendas are advanced by claim makers to support their environmental arguments. Importantly, climate change that is presented as a global agenda has discursive powers to justify particular environmental practices in Thailand. In this sense, news related to climate change does not provide definitions of climate change. Conversely, the manifestation of climate change issues in issue-oriented news emphasises the situation of environmental conflicts in Thailand.

The following examples of news articles are demonstrated as the way that climate change is advanced to support environmental practices in Thailand, especially environmental claims advanced in the dilemma of emission reduction, which reflects the problem of natural resource management and rights to environmental resources.

Example 1: Climate change and drought crisis

The news article focuses on the government's preparation for the COP21. The headline mentions, "PM weighs emissions goal effect"⁴⁸. The news lead mentions that the goal to cut greenhouse gas is a concern of the Prime Minister. Later, the article illustrates that the progress of the industrial sector will be examined by experts to find the effects of reducing emissions. The analysis shows that news narratives convey conflict newsworthiness by juxtaposing two scenarios in the country. The following is the news leading and content;

An ambitious target to cut greenhouse gases by 25% by 2030 requires that Prime Minister Prayut Chan-O-Cha looks into the possible impact on Thailand's industrial development [...] the premier asked experts to conduct a study on whether the industrial sector will suffer if Thailand goes ahead with the target. Gen Prayut is scheduled to announce the country's plan to reduce greenhouse gas emissions by between 20-25% at the UNFCCC, which is being held in the Parc des Expositions du Bourget in Paris, France. World leaders are meeting to discuss new commitments to deal with global warming.

It can be seen that the news story regards the COP21 as the world agenda for national emission issues. However, the article suddenly turns to report the drought situation in the country after global warming issues are mentioned in the earlier paragraph.

Meanwhile, farmers in the Central Plains have been warned to prepare for a drought which is expected to hit the region over the next three years as average rainfall in mountainous areas is decreasing. Sucharit Koontanakulwong, chief of the

⁴⁸ *Bangkok Post* published on 1 December 2015, page 2, underlining is not original emphasis, appendix 19

department of water resource engineering at Chulalongkorn University's faculty of Engineering, said that the farming sectors will be further hit by drought for another three years until there is enough water in the country's main dam to boost supplies. (my underlining)

Accordingly, the narrative offers a juxtaposition of two scenarios. The first scenario reports politicians' concerns about emission targets that might affect industrial progress in the future, while the second scenario illustrates the hardships of farmers who are facing environmental hazards. These contrasting scenarios imply the dilemma of national development policies and injustices of environmental resource management. Arguably, news narratives convey the idea that the government favours the industrial sector over the agricultural sector. Also, rhetorical strategies are used to highlight the difficulty of farmers as urgent and real.

Example 2: Controversy of PDP2015

The controversy of PDP2015 was reported by the *Bangkok Post* newspaper during the COP21 news agenda. The analysis points out that the *Bangkok Post* brought the PDP2015 issue to feature with the COP21 news agenda, while other newspapers did not bring this issue to publication. Table 5.5 illustrates three articles from the *Bangkok Post* that feature the COP21 news agenda with PDP2015.

Table 5.5, Three news articles related to climate change that associate the PDP2015 with the COP21 news agenda

Slug	Headline	News source	Issue
Environment	Govt looks to cut down on greenhouse gases	The director of the Climate Change Management and Coordination Division, The coordinator of the Thai Climate Working Group, COP Ambassador of Asia	17 July 2015, p. 3
Special report	Critics say emissions vow ‘a pipe dream’	The office of Natural Resources and Environment Policy and Planning, The academic for the Energy Watch Group, the Director for the Energy Policy and Planning office of the Ministry of Energy, Anonymous Activist, Kasetsart University’s Economics lecturer	5 December 2015, p. 5
Analysis	Govt feels heat on climate deal	The Director for Energy Policy and planning office of the Ministry of Energy, the Director of the Mekong-Energy and Ecology Network (MEEnet), Thailand Based Oxfam’s Programme campaign and advocacy coordinator , the Director at the Good Governance for Social Development and the Environment Institute, the Ministry of Environment and Natural Resources, anonymous green activist	14 December 2015, p. 1

Mentioned in the slugs and their position on local news pages, these news articles are covered by environmental news beats. It can be seen that climate change issues are highlighted in the headlines that point to the efficiency of climate change policies. The

analysis indicates that arguments of environmentalists, who oppose coal-fired power plants, are supported by climate change discourse. In addition, this claim is prioritised in news elements, namely, headline, lead, and news narrative. The example of a special report on 5 December 2015 is illustrated as follows.



Figure 5.11, Special report published in the *Bangkok Post* on 5 December 2015, page 5

According to the layout of the special report, the headline prioritises claims from environmental activists. It is mentioned that “Critics say emission vows ‘a pipe dream’. Renewable resources under-used as southern projects and energy import plans forge ahead”. However, the pulled quote was designed to offer short comments from the officials who insist on building coal power plants. It was mentioned that “Coal-fired power plants are a must”. In terms of news content, the special report firstly offers strong statements from environmental activists who claim that the government neither intends to reduce greenhouse gases nor increase clean energy in the country as pledged to the Paris Agreement. It is mentioned in the lead that

Thailand’s pledge to massively cut carbon emissions by 20-25% from their 2005 levels has been questioned by critics, who regard it as a pipe dream. The pledge [...] was made by the Prime Minister, Prayut Chan-o-Cha at the 21st conference on climate change (COP21) held in Paris last week [...] but according to critics, the main obstacle that will bar Thailand from reaching its ambitious goal is a plan to build two coal-fired power plants, an 800-megawatt plant [...] and a 2,200 megawatt plant [...] as stipulated in the Power Development Plan 2015-2036. “The PDP is determined to build more power plants to offer business opportunities,” said Santi Chock-

chaichamnankit, an academic for the Energy Watch Group, who said that the state's commitment to renewable energy is only lip service.

In this sense, climate change discourse has been portrayed as a powerful agenda engaged in news stories to support the claims of activists. The news story balances the claims of activists by including the comments from the official who argues that coal power plants are essential to the energy security of the country and to support economic growth. This development thus requires higher installed capacities of energy. Due to the needs to reduce dependency on natural gas, which is imported from Myanmar, coal power plants must be operated in the country. The official claims that

[e]ven though coal supplies increase emissions, the overall greenhouse gas emissions per electric unit will decline due to decreased use of gas supplied. Combining various energy sources and news technologies will help to reduce carbon dioxide emissions by 37% from the expected emissions in the previous version of PDP.

By employing two contradictory attitudes to PDP2015, this special report portrays conflict in environmental management. Moreover, it can be seen that the narrative is embedded with rhetorical elements that intensify conflict issues. For example, metaphorical phrases and word choices such as:

- Critics say emission a pipe dream
- the state commitment to renewable energy is only lip service.
- the main obstacle that will bar Thailand from reaching its ambitious goal is a plan to build two coal-fired power plants.
- Since 2015, driven by the current PDP, the conflict has flared around the proposed site of two power plants.

In this sense, the COP21 news agenda that was connected to the PDP2015 issue reflects that this global agenda is framed to support environmental claims in Thai society. Arguably, the commitment to reduce CO₂ was articulated to denounce PDP2015 by arguing that coal-fuelled power is a drawback in accomplishing global agreements. Therefore, the COP21 news agenda and climate change issues were portrayed within the story of environmental conflict in the country. When the climate change agenda is reported by environment news beats, the conflicts related to the power of the state to enforce

environmental practices in society, which tend to violate civil rights of disadvantaged groups, are emphasised in news related to climate change.

This thesis's research raises arguments about this representation of climate change in news, suggesting that it reflects a tendency to frame environmental news agendas within the area of conflict. In terms of the situation in Thailand, the fact that environmental news beats have established themselves with conflicts is widely argued in previous research (Phiphitkul 1994; Samabhuti 1997), especially environmental conflicts that are related to the corrupt justice system in the country (see the development of environmental news beats in section 3.3). This journalistic prejudice also underpins the presence of environmental agendas that are brought engage with climate change topics.

It should be noted that the problem of PDP2015 that proposed to build two coal-fired power plants in the southern part of Thailand is not merely related to emission targets ratified in the Paris Agreement. In fact, there is a number of conflicts and actors involved with this issue. Krabi province, where its coral reef brings tourists from around the world for diving in the Andaman Sea, is one of the construction sites for coal-fired power plants. Therefore, environmental activists, for example, Greenpeace Thailand, who lead campaigns against building these coal-fired power plants, claim that the environmental procedures of the proposed power plants and deep water port construction are below standard. Additionally, the project has been protested against by communities around the construction site. They argue that Krabi cannot afford more coal-fired power plants because its pollution is uncontrollable. In addition, Krabi province is the home of ethnic groups whose life support is provided by coastal fishing⁴⁹. The operation of the deep sea port as well as its daily vessel passage for importing coal can affect sea conditions and finally cause hardship to local people. Confrontation between protesters and the government started in 2015 and was intensified by aggressive feedback from the government.

⁴⁹ Urak Lawoi, sometimes called "sea gypsies", is a mixed ethnic group of Malay people and others. Urak Lawoi originally lived their lives by straying between islands. When the first group of Urak Lawoi decided to anchor around coastal areas of the Andaman sea, islands located in Krabi held the largest population of this ethnic group. Recently, Urak Lawoi conserved the use of their own spoken language. They intend to survive by catching fish for household consumption. Although the group has been affected by modern trading, most Urak Lawoi still preserve their spiritual beliefs and rituals that worship sea and nature spirits.

In order to activate PDP2015, the military government was enforcing Article 44 in The Constitution of the Kingdom of Thailand (Interim), B.E. 2557 (2014) to force legalisation of investment in coal-fired power plants. This enforcement was announced without the Environmental Impact Assessment (EIA). Meanwhile, the Electricity Generating Authorities of Thailand (EGAT), the largest state-enterprise power producer in Thailand, launched its 60 seconds' television commercial to promote the necessity of increasing coal power plants in Thailand. The TVC, which was named 'the balance of energy', asserted the idea that the new technology of coal-fuel generators is safe and clean, while renewable energy from wind and solar sources is unreliable. Therefore, increasing the proportion of coal-fuelled energy will ensure the energy security of the country (The Electricity Generating Authorities of Thailand 2015). It was not a surprise that PDP2015 assigned the new coal power plant operations to EGAT. The project, which is called the "Krabi Clean Technology Coal-Fired Power Plant" (The Electricity Generating Authorities of Thailand n.d.), uses 870 megawatts installed capacity. Coal fuels, subbituminous and bituminous, will be imported for daily usage from Indonesia or Australia. EGAT claims that imported coal contains less than 1% sulfur dioxide. It is estimated that this Krabi power plant will start commercial operations during December 2019.

However, the construction plan was suspended in February 2017, due to the alliance of environmental activists, as well as Greenpeace Thailand, rallying to the house of the government and pledging to stay on the road. The alliance demanded that the government declare the report of the Environmental Impact Assessment (EIA) of the project to the public. The EIA, which was conducted by EGAT, had been under assessment by the Environmental Resource Plan and Policy Centre. The government denied revealing details of the EIA and, meanwhile, the demonstration was forced to disband and leaders of the demonstration were arrested. Before the intensity of the situation could be stimulated, the government announced the postponement of power plant construction and assigned EGAT to revise the EIA. It was revealed later by the Secretariat of Environment Resource Plan and Policy Centre that the EIA proposed by EGAT has not yet been approved by the department because of a number of problems in environmental management procedures (Thai Public Broadcast Service 2017).

While Krabi province was chosen to be the site for the coal power plant, a number of academics supported the claims of environmental activists who alleged that locating a coal power plant in Krabi province would undermine the capacity for renewable energy production of the communities (Buathong 2017). The study reveals that Krabi province has the capacity to generate 1,700 megawatts from renewable energy. This amount covers the peak demand of electricity in the province and it is enough to support the region. It was mentioned by the researcher from the Health Public Policy Foundation, Supakit Nantaworakan:

According to PDP2015, the proportion of renewable energies is supposed to be increased yearly. However, there is no sign of the growth in use of renewable energy. This is because the Ministry of Energy prefers to invest in coal power. It can be seen that the government buys only 40 megawatts of renewable base energy while the country is capable of producing electricity from renewable energy at 100 megawatts (Buathong 2017).

According to this situation, the conflict about PDP2015 is neither merely the agenda that concerns the energy policies of the country nor the commitment to the Paris Agreement. In fact, PDP2015 is more concerned with tensions between liability to serve energy security of the country demanded by central government and the community's rights to manage their own environmental resources. Therefore, PDP2015 is interested in environmental news beats, which attempt to reflect this conflict within the COP21 news agenda.

Regarding the previous two examples, news media play an important role in allowing particular claims from particular actors to be present in news narratives with different degrees of prominence (the actors in news and their claims are discussed in section 5.6). Based on the analysis of news related to climate change in the three newspapers, I argue that, while newspapers are actors which shape the social and cultural meanings of climate change to the public, the newspapers also act as agents to empower discourse related to climate change and local environmental conflicts by prioritising particular claims from particular actors. Concerning the context of Thailand, where environmental justice and community rights are vital issues, climate change discourse is advanced in environmental conflicts between different groups of people. Climate change discourse becomes a premise for defining particular environmental practices in the country as being acceptable or unacceptable to the global community. An example of this is the activists' claim that risks from coal power plants are not merely hazardous to local communities but instead undermine the country's recognition in the global arena.

5.5.3 Journalistic prejudice in framing dilemmas of development policy

This subsection continues to examine the findings related to the COP21 news agenda and the controversies of PDP2015. While the issue has been reported by environmental news beats, the relevance of national energy policies and the target to reduce emissions are not addressed by business news beats. Accordingly, the differences of framing news agendas between environmental news beats and business news beats reflect particular journalistic prejudice in newswork.

Concerning the COP21 coverage in the *Green Report*, the analysis shows that the editorial team neither engaged with the agenda to business nor industrial aspects. Despite the expertise of the *Green Report* editorial team, which has a background from industrial news beats, the newspaper portrayed this special issue as a global event that related to the environmental policies of Thailand. The main scoops emphasise the claim that Thailand is moving in the wrong direction in anticipating climate change. However, the issue of PDP2015 is excluded from the arguments. (The analysis of news narratives in the *Green Report* is discussed in section 5.3.2). This presentation reflects the fact that the issue of energy policies, which relates to economic growth, is not taken into account by the *Green Report* editorial team.

In terms of the *Bangkok Post*, topics related to the energy policies of the country, especially huge investment in power plants, are generally the responsibility of industrial news beats that are familiar to news sources in the energy sector. However, the relevance of PDP2015 and emission targets was reported from the viewpoint of environmental news beats, while the agenda was omitted from industrial coverage. Although the COP21 agenda seems to be related to environmental issues, Thailand is, in fact, a developing country where economic growth directly relies on fossil fuels. Emission targets from the Paris Agreement thus has implications for business and industrial activities. This manifestation of the PDP2015 issue in COP21 news agendas in environmental news, and the absence of the issue in business news, raises the question related to journalistic prejudice, in particular news beats, especially environmental news and business news. It seems that this journalistic prejudice determines the viewpoint of the news beats to produce and to discard news related to climate change in particular ways. Therefore, this thesis's research continues to

investigate the impact of journalistic prejudice towards presentation of environmental news by including interview methods (see discussion about journalistic prejudice in section 6.4).

Nevertheless, I argue that textual analysis evidences challenges in increasing news content that contributes to public understanding of sustainable development in Thai newspapers, specifically in hard news narratives. This is because the editorial team is unable to frame occurrences into sustainable development areas. Therefore, the topics about green business and green energy are neither manifested in the environmental news genre nor the business news genre. Due to newswriters being influenced by journalistic prejudice, topics that are inconsistent with their norms are thus excluded from their routine. While environmental news beats are anchored to areas of conflict in environmental management, business journalists focus on financial areas and the growth of business. Moreover, both news beats distrust environmental information from corporate sources. Therefore, information that reports environmental projects, especially CSR programmes, is discarded by journalists.

Accordingly, the representation of climate change issues in Thailand's newspapers is embedded with conflict aspects. Other dimensions of climate change issues, ranging from science to environmental economics, are not present in the newspapers. These issues require integration of specialty from news beats, such as financial, economic and industrial, to allow multi-dimensional aspects that suit the nature of modern environmental problems. In consequence, the representation of climate change in Thai newspapers pays a smaller contribution to the idea of sustainability, which requires an integrative approach to anticipate modern environmental problems. Importantly, the concept of sustainability is based on mutual support from diverse sectors in a society. According to the analysis of seven months of news related to climate change, there is no news article that reports about green business as well as green energy in the newspapers.

To sum up, this section illustrates that the climate change issue is portrayed as a global agenda in three newspapers in Thailand. The analysis of the COP21 news shows that hard news narrative emphasises the prominence of local and international politicians. As a result, the fact that climate change has become the agenda of international negotiation, as well as conflict between developed countries and developing countries, is emphasised in hard news. Moreover, the impact of climate change on local areas is absent in climate change news due

to the three newspapers evidencing climate change effects with iconic animals, especially whales and polar bears. This research argues that this representation is determined by journalistic newsworthiness that addresses climate change as a global agenda. It seems that newswriters perceive that scientific reports of international institutions are credible sources and, therefore, the reports about the impact of climate change on global arenas are published in the newspapers, while local situations related to climate change effects are not reported.

Finally, I argue that in consequence of portraying climate change as a global agenda, climate change discourse is utilised by various claim makers to support their agendas in local environmental conflicts presented in newspapers, especially the environmental news genre. In doing so, environmental news is not the agent that reflects the definition of climate change in Thai society but the presence of climate change discourse in environmental news is the justification to support claims related to other local environmental struggles. In terms of Thailand, the seven-month analysis of newspapers shows that climate change agendas are engaged with the issue of PDP2015. The conflict about coal power plant investment is intensified with climate change discourse advanced by particular news sources. Unlike environmental news, the analysis of climate change scoops in the *Green Report* shows that the newspaper insisted that climate change mitigation has less significance than climate change adaptation for Thailand. Although the newspaper has expertise in business and investment content, the issue of PDP2015 is not addressed in the news scoops. In this sense, this representation of climate change discourse in diverse news topics reflects journalistic prejudice embedded in distinct news sections. While environmental news beats focus on environmental struggles related to industrial development policies, as well as difficulties in accessing rights to manage local environmental resources, the business newspaper discards the influence of the business and industry sectors to climate change. Moreover, it is a challenge for national newspapers to provide understanding of sustainability concepts to society.

5.6 The actors in news related to climate change

This section aims to answer research question 2: who are the claim makers shaping news coverage of climate change issues in the selected newspapers? The discussion is separated into three sub-sections that are related to the presence and absence of particular

actors found in news related to climate change and, also, the implications of such representation to public understanding about climate change issues. Firstly, this analysis points out that elites and experts are primary-definers in climate change news, while other news actors are portrayed as victims in climate change issues as well as other environmental problems. Moreover, this analysis indicates that middle class actors are underrepresented in news related to climate change. In consequence, it seems that hard news reports about climate change cannot engage middle class people to participate in climate change anticipation. The details of discussion are illustrated below.

5.6.1 Defining primary-definers in news related to climate change: pervasiveness of powerful news actors as commentators

The seven-month analysis of newspapers illustrates that hard news articles related to climate change are dominated by powerful news actors such as politicians, officials and experts (discussed previously in section 5.5). These news actors were presented as the commentators in hard news reports. Moreover, the expert commentators found in the news coverage are also titled with official positions. The predominance of powerful news actors is found in the COP21 news agenda and others in this study. For example, hard news reports about the COP21 events are dominated by comments from politicians, as well as officials. The news report of the *Bangkok Post*⁵⁰ on the first day of the COP21 meeting cited the announcement of Thailand's Prime Minister at the conference (see figure 5.12). It also provided comment from the President of the US and the UN secretary in the final paragraph.

⁵⁰ *Bangkok Post* 2 December 2015, p 3.



Figure 5.12, The news report in the *Bangkok Post*, 2 December 2015, page 2

The pervasiveness of elite commentators in the COP21 news agenda is demonstrated in table 5.6 which shows the primary-definers and truth-claims in hard news article published in three newspapers during seven months.

Table 5.6, Demonstration of primary-definers and truth-claims in hard news articles that report the COP21 news agenda, published in three newspapers over seven months.

Headline	Primary-definer	Truth-claim and example of content
Govt looks to cut down on greenhouse gases (see appendix 32)	Director of the Climate Change Management and Coordination Division at the Natural Resources and Environment Ministry	<p>Truth claim: Thailand needs to be realistic in emission reduction targets. The process to finalise the target is in the hands of the government. However, financial support from developed countries is vital to the success of emission plans.</p> <p>Example: “We don’t want to propose a target that we can’t meet” [...] The 20% reduction will require international financial assistance” [...] “The roadmap of climate change was endorsed by the cabinet and is now under scrutiny of the National Legislative Assembly”</p>
Prime Minister pledges to reduce global warming this November. (excerpt from appendix 28)	Director of the Climate Change Management and Coordination Division at the Natural Resources and Environment Ministry	<p>Truth claim: Thailand’s finalisation of the target is in the process of the government. However, financial support from developed countries is vital to the success of emission plans.</p> <p>Example: “...the reduction at 20% will be the responsibility of the government. But to reach 25% reduction, which requires extreme expense, it is necessary to receive supported budgets from international sources.”</p>
	The expert of division of publication, the Natural Resources and Environment Ministry	<p>Truth claim: The government intended to publicise scientific studies about global warming.</p> <p>Example “...the government has launched a new website that provides daily reports about the COP21 meeting...the government encourages exhibitions about global warming such as short films made by university students...”</p>
Kingdom aims to cut emissions by 25% (see appendix 33)	Director of the Climate Change Management and Coordination Division at the Natural Resources and Environment Ministry	<p>Truth claim: Finalising the target is in process of the government. However, financial support from developed countries is vital to the success of emission plans.</p> <p>Example: “...the reduction of 20% will be the responsibility of the government. But to reach 25% reduction, which requires extreme expense, it is necessary to receive supported budgets from international sources.”</p>

Headline	Primary-definer	Truth-claim and example of content
PM weight emission goal effect (see appendix 19)	Deputy government spokesman	Truth claims: Thailand needs to obligate its participation in the global climate change movement. Example: “The premier asked experts to conduct a study on whether the industrial sector will suffer if Thailand goes ahead with the target [...] Gen Prayut is scheduled to announce the country’s plan to reduce greenhouse gas emissions by....”
PM vows to cut emission at Paris summit (see appendix 12)	Prime Minister	Truth claims: Thailand needs to obligate their participation in the global climate change movement. Example: “Land transportation <u>must be reduced</u> [...] Thailand also <u>will implement</u> measures to prevent forest encroachment, ensure better water [...] Thailand <u>would work with the international community</u> to reduce greenhouse gas emissions. Thailand had thrown its support behind a new universal agreement...”
Thais refuse to help fund climate efforts (see appendix 35)	Director of the Climate Change Management and Coordination Division at the Natural Resources and Environment Ministry	Truth claim: Developing countries are bearing problems from climate change. Example: “Thailand believed developed countries should accept the responsibility for funding developing countries’ effort to reduce greenhouse emissions [...] responsibility will weigh heavily on Bangkok if the Paris Agreement does not conclude with a ‘true agreement’”
Global warming draft is still in discussion for another day (excerpt from appendix 36)	Minister of Foreign Affairs, France	Truth claim: The meeting should acknowledge climate justice between rich countries and poor countries Example: “...the meeting will be continued on 12 December [...] some delegates disagree with the draft on 10 December, which claims that rich countries are pushing global warming to be the burden developing countries”

Headline	Primary-definer	Truth-claim and example of content
195 nations agree to control global temperature at well below '1.5' (excerpt from appendix 9)	US President	Truth claims: The Paris Agreement is a global collaboration to reduce global warming Example: "The Paris Agreement is a model to solve crises in global warming"
	The Prime Minister of Germany	Truth claims: The Paris Agreement is a global collaboration to reduce global warming Example: "Paris Agreement is the turning point in global climate change policy"
	The delegate from China	Truth claims: The Paris Agreement is a global collaboration to reduce global warming Example: "The Paris Agreement is not perfect. However, this is not the barrier to move forward in the future. This agreement is good news to everyone"
	The Director of Greenpeace International	Truth claims: The Paris Agreement is a global collaboration to end the fossil fuels Example: "...the target at 1.5 degrees and the new target at zero emission releasing within final half this century will cause concerns to fossil business and OPEC countries"

Similar to the COP21 news, hard news that reports climate change lawsuits focuses on providing comments from the official and elite news sources. For example, the report in the *Bangkok Post*⁵¹ provides comments from elites and officials rather than the people who are affected by the lawsuit. The opinions from the Land Reform Network coordinator, the National Human Rights Commission, Sukothaithammathirat⁵² University's Deputy Director of the Economy and Environment Programme for Southeast Asia, and the official from the Social Responsibility Law Office, were quoted respectively.

Furthermore, the pervasiveness of powerful news actors as commentators can be found in alternative news narratives. The analysis from three newspapers shows that news scoops over seven months also relied on powerful news sources. For instance, news analysis about the COP21 in the *Bangkok Post* newspaper⁵³ demonstrates a number of news sources but is limited to the opinions of elite people. In other words, it can be seen that the meaning and significance of the COP21 are dominated by the opinion of elite people, while the involvement of other social classes, the middle class and lay people, is diminished in the representation of the COP21 in the newspaper. Table 5.7 summarises sources and their perspectives to the COP21 presented in the news scoop.

⁵¹ *Bangkok Post*, 28 September 2015, p. 2

⁵² Sukothaithammathirat university is the largest open university in Thailand. The university was established in 1978. The university is one of the state enterprises.

⁵³ *Bangkok Post*, 14 December 2015, p. 1

Table 5.7, Sources, perspective to the COP21, and examples of news content in news scoops published on the front page of the *Bangkok Post* on 14 December 2015 (Appendix 14).

sources	perspectives to the COP21	examples of opinion
Official: Deputy of Thai Delegation at the COP21	Direction of national mitigation policy and planning after the Paris Agreement ratifying.	[...] “This will demand more responsibility from Thailand especially when it has to return with a new target every five years... We will still have more work to do. We pledge to work with all countries and comply with the deal”
NGO: Director of the Mekong-Energy and Ecology Network (MEENet)	Blame the government for questionable intentions to invest in renewable energy.	[...] suggested the Thai government be more sincere about developing renewable energy, aligning with a global push to green energy rather than investing in coal [...]
NGO: Thailand-based Oxfam’s programme campaign and advocacy coordinator	Criticism of the Paris Agreement in accomplishing a worldwide low carbon society.	[...] all parties must realise that time to heal the world is running out and they need to do more to become low carbon societies [...] countries are lacking efforts to keep the global temperature increase to well below 2C [...]
NGO: Good Governance for Social Development and the Environment Institute	Call for the responsibility of energy producers cutt CO ₂ and ensure clean energy investment.	[...] Thailand has proposed reducing greenhouse gas emissions by 25% from current levels, and the energy sector will have to play a key role by incorporating clean technologies [...]
Official: Environmental and Natural Resources Minister	Announce national plan to support CDM scheme.	[...] Thailand will promote a voluntary-based carbon market in the industrial sector and increase forest areas nationwide [...].
Anonymous: “green activists”, “observer”	Criticise the national power development plan and claim that it is the barrier against accomplishing the country’s obligation to the Paris Agreement.	[...] coal use will increase from 10% to 25%, possibly putting nine coal-fired power plants into the pipeline, raising concerns about Thailand’s ability to achieve its INDC target and its credibility at future rounds of the talk. [...]

Table 5.7 demonstrates that news articles provide the comments that are not limited to merely the officials but news sources from NGOs are also quoted in the news. Therefore,

counterarguments from alternative viewpoints were raised in the article. However, both officials and NGOs, mentioned as news sources in the story, perform their role as “the expert”. In light of this finding, it evidences the status of the elites in maintaining their definitional power over environmental issues in news. Arguably, this thesis’s research shows that the primary-definers in news related to climate change comprise the elites who are the officials and those who are titled as “the expert” from the perspective of newswriters. This finding confirms the notion that the elite class is “the plurality” (Manning 2001) and news media present their arguments and counterarguments between the elites in news content. In this sense, the variety of sources mentioned here does not guarantee democratised public communication space in environmental news. Moreover, the comments from NGOs are utilised to balance news stories rather than inclusive presentation. Meanwhile, the voices of ordinary people do not appear in the article.

Here, the issue of cultural context seems to be an influence on the pervasiveness of powerful news sources in news. Asian values such as harmony, respect, and trust in leadership, are condemned for their tendency to rely on authoritative news sources of journalists in Asian countries (Maras 2013, pp.224-226). The power of elite news sources to define the environmental issues found in this study can be influenced by both the culture in Thailand and the political situation. Thai society is inherited from a patronage culture, in which the rights of people are defined by societal hierarchy. Therefore, there is a tendency for authorities to be valued as more credible than ordinary people who are suppressed from expressing their opinions in news. Moreover, during the seven-month period of this study, Thailand was an authoritarian state governed by the military government. This circumstance has affected freedom of speech not merely in journalistic practices but also for citizens. In this sense, this tension can compromise public expression, especially through newspapers. Although there is no formal censorship scheme enforced on the newspapers, both news sources and the reporters are more discreet to protect themselves from military courts. This backdrop seems to enact self-censorship widely in the country, including journalism in practice. However, this assumption is made based on the textual analysis so it requires more evidence to clarify the reason why the elite class can secure the status of the primary-definer in news related to climate change. At this point, the analysis demonstrated in the previous section signals that journalistic conventions, especially newsworthiness and news narratives, have influenced the way that the official news sources are prioritised in environmental news stories. However, this thesis’s research extends this matter to investigate further the

newsgathering process that increases the influence of these primary-definers in news. This issue is discussed in more depth in Chapter 6 based on the semi-structured interview method.

In terms of environmental debate, the examination of news related to climate change reveals that environmental agendas advanced by officials seems to connect with the issue about natural resource management in the country. Climate change issues are brought to connect with governmental policies in energy source management, earning international funding for improving the environmental situation and regaining forest areas in the country. In doing so, the official news sources address climate change as the reason behind environmental operations, which government practises in the country. Consequently, the representation of climate change in hard news that is defined by the officials is conflated with bureaucratic and managerial discourse.

By this, I argue that by employing hard news reports, newspapers turn into the space that allows primary-definers to advance climate change agendas to support the environmental policies and environmental practices of the authorities, for example, energy policies and environmental standards. This is because the officials become the main source of identifying particular facts related to climate change in news, while facts given by other parties, for example, NGOs, were marginalized in climate change related news. Here, the finding exhibits uneven “definitional power relations” that are embedded in hard news related to climate change.

In terms of environmental practice in the country, the case of the global warming lawsuit (see details in section 5.2.1) also evidences the power of climate change discourse, which is utilised by the court of justice to enforce liability of villagers and to legitimise the environmental practices of the government. The analysis of news about the global warming lawsuit shows that the conflict between the state and marginalised people is also defined by the officials who are primary-definers in climate change related news. An example of this is the news article in the *Bangkok Post* that solely reported the actions and comments from the Supreme Administration Court:

The Supreme Administration Court has upheld a lower court’s verdict dismissing 23 villagers’ complaints against the compensation method used by the Department of Natural Parks, Wildlife and Plant Conservation at the Royal Forest Ministry. [...] According to the Supreme Administration Court, it is up to the court of the First Instance to determine [...] The cutting down of the trees contributed to global

warming, according to the department. They argued the villagers must pay the state compensation in their role in worsening climate change.”⁵⁴

According to the quoted news article, the officials justified the amount of the penalty that villagers are liable to pay by advancing climate change matters. However, the arguments from the officials are reported in this hard news article without further context or details that can explain the calculation methods. Moreover, the news article provides comments from the villager in the last paragraph, which portrays the villager as the victim (detail in section 5.6.2). It needs to acknowledge that the *Bangkok Post* provides follow-up news about the global warming lawsuit, published one month later. This follow-up article was produced in a special report narrative that provides more context and background to the calculation methods than the first hard news report. However, the special report also prioritises the comments from the officials and portrays the villager as the victim in the lawsuit. Another example from *Krungthepturakit* mentions ‘MJ’ in the rush to remedy-prove the scandalous problem in forest reclamation of the 58 areas referred to in the headline. This news report firstly provided the statement of the Permanent Secretary of the Ministry of Justice that mentions the progress of action to help villagers who are liable for the penalty of causing global warming from forest encroachment:

General Dusadee Arayawut, Assistant to the Permanent Secretary of the Justice Ministry acting as the Chair of Committee to resolve the criminal case of forest encroachment said that the problem is complicated. According to the request of the Natural Resources and Environment Ministry to remedy the villagers who are affected from Article 44, there were the people who encroached national forests and cut down rubber trees [...]

The report adds the comments of the Permanent Secretary of the Ministry of Natural Resources and Environment who insisted that the difficulties in continuing the investigation were because of bureaucratic processes:

Miss Suthilak Rawiwan, Assistant to the Permanent Secretary of the Natural Resources Ministry said that proving the rights of folk people cannot be rushed because of the bureaucratic system. The government accepts that in regard to the issue relating to the damaged property of villagers caused by Article 44, there is not

⁵⁴ excerpt from “Top Court Rules Against Encroachers”, *Bangkok Post*, 24 August 2015, p.2, underlining is not original emphasis. (Appendix 20)

enough of a budget to remedy the damage immediately. In order to provide financial remedy, it needs to prove that villagers have rights too⁵⁵

The news report provides the opinions of villagers in the last two paragraphs of the news story. This example thus illustrates that environmental conflicts between the state and ordinary people are also defined by the authorities. While climate change discourse has become the reason for powerful institutions to earn legitimacy in environmental practices, the voices of opposing parties, who include local communities, are underrepresented in hard-news related to climate change.

5.6.2 Portraying victims in climate change: pictures of ordinary people

While elite actors are primary-definers in climate change related news, the analysis of news related to climate change in three newspapers indicates that particular actors in news are constructed as the victims of climate change consequences. Two main groups that are constructed as victims are ordinary people in rural areas and rare animals in vulnerable geographic locations. Meanwhile, the news coverage of the COP21 in this study does not present opinions from ordinary people, although the hardship from climate change of people in rural areas is emphasised in news reports. The following two news images illustrate the differences between the portrayal of ordinary people and the presentation of elite people in the newspapers.

⁵⁵ excerpt from “ ‘ยธ’ เ่งหามาตรการเยียวยา-พิสูจน์ ผลกระทบปมทวงคืน ‘ผืนป่า’ 58 พื้นที่” (‘YorTor.’ Reng Ha Matakan Yeawya-Pisoot Ponkratob Tuangkeun ‘Peunpa’ 58 Peuntee), *Krungthepturakit*, 24 June 2015, p.24, underlining is not original emphasis. (Appendix 23)



Figure 5.13, News image of British scientist on page 4 of *Bangkok Post*, 3 July 2015.



Figure 5.14, News image of local people published on the front-page of *Krungthepturakit* , 30 November 2015

It can be seen that two types of news actor, the expert and local people, are presented differently from the rhetoric embedded in the two news images. The news image in the *Bangkok Post* (figure 5.13) shows a British scientist, who is campaigning for climate change

awareness, and the COP21 meeting which was represented by active and powerful actions. On the contrary, local people represented in *Krungthepturakit* (figure 5.14) are passive and powerless. This news image emphasises the idea that these local people are waiting for help. The image was published on the front page of the newspaper on the first day of the COP21 meeting. The image was supplied by Greenpeace Asia to raise public awareness of the drought crisis in the climate change era.

In terms of news narrative, this analysis also confirms that news actors who are ordinary people are constructed as a victim both in hard news narrative and the alternative news narrative. The analysis of the global warming lawsuit news agenda from three newspapers found that opinion from lay people actors usually appeared in the final paragraph of hard news narratives. Even though local people were involved directly in the situation, their opinions were discarded to the final paragraph of hard news reports. Moreover, it can be seen that hard news structures define the situation by quoting the officials' and the experts' comments, then the opinions from local people are lastly mentioned in the news structure.

Similar to hard news narratives, the analysis of special reports in the *Bangkok Post*⁵⁶, which reports the global warming lawsuit, constructs ordinary people actors in climate change issues as victims. Although the news story starts with the action of local people who are accused of being encroachers, the narrative focuses on their physical appearance and age, as well as their feelings toward their situations. This representation emphasises that they are powerless and underprivileged in the situation, although it seems that this narrative is beneficial to readers to have a precise understanding of the occurrences in mind. In fact, this presentation empowers the readers as beholders in particular situations. The news story starts with the following statements:

Chada Chuthing, 54, came away from the Administrative Court in July facing almost certain bankruptcy. And she thinks she has an inflexible bureaucracy, and climate, to blame. Her face paled and her palms started to sweat when the court read out its decision [...] She is being punished financially for wiping out native, naturally-grown forest trees, and replacing them with cash crops.

⁵⁶ "Special Report: Climate change packs punch", *Bangkok Post*, 28 September 2015, p.2, underlining is not original emphasis (Appendix 21)

Portraying the ordinary people as victims is also found in other news articles that report the global warming lawsuit and an example is illustrated below.

“Kanya Panpipit, 53, from Trang, wept after hearing the ruling. She said she was scared her family will be evicted from the occupied land.”⁵⁷

“Find the scheme to remedy the effects from regaining 58 forest area policies. Proving rights of the folks. Please help old grandma, 84 years, who was alleged to have cut down 71 rubber trees and was subjected to a fine of GBP 30,000 for contributing to global warming [...] The villagers were accused of encroaching on deteriorated forests and felling trees to make way for farming in the areas they occupied.”⁵⁸

As shown in previous examples, the underlined phrases illustrate that, apart from emphasising the appearance of the defendants, rhetorical strategies such as the use of passive voice and synecdoche were applied to narrate ordinary people in the global warming lawsuit news. The analysis found that the news narrative not only constructs local people as victims but also stereotypes ordinary people as powerless and disadvantaged actors in the struggles related to climate change problems. Moreover, this stereotype is reflected in the choice of words utilised to refer to local people in the news articles.

According to news narratives, Thai language newspapers tend to use the word “ชาวบ้าน” (chao-ban), to refer to ordinary people, for example, the encroachers in the global warming lawsuit. To elaborate, the meanings of ชาวบ้าน (chao-ban) are complex. According to a Thai language dictionary (The Royal Institute Dictionary 2011), ชาวบ้าน can be used both as singular and plural noun to refer to a habitat in a specific area. However, ชาวบ้าน can refer to a common man who is not literate, one who lives among nature, and it can mean one who preserves a traditional way of life. Due to its complex meaning, the newspapers tend to use this word to define people who are affected by environmental policies.

⁵⁷ excerpt from “Top court rules against encroachers”, *Bangkok Post*, 14 August 2015, p.2, underlining is not original emphasis (Appendix 20)

⁵⁸ excerpt from “ ‘ยธ’ เ่งหามาตรการเยียวยา-พิสูจน์ ผลกระทบปมทวงคืน ‘ผืนป่า’ 58 พื้นที่” (‘YorTor.’ Reng Ha Matakan Yeawya-Pisoot Ponkratob Tuangkeun ‘Peunpa’ 58 Peuntee), *Krungthepturakit*, 24 June 2015, p.24, italics are not original emphasis, underlining is not original emphasis (Appendix 23)

According to previous research, the representation of people who are affected by climate change issues in news is in a similar position to that of this thesis's research; for example, the identity of Australian ethnic groups. Tuvaluans, are presented as "tragic victims" (see Farbotko 2005). Despite the fact that presenting people as victims can raise awareness of the reader to climate change problems, victimisation discourages adaptability of people in climate change anticipation. In terms of Thailand, describing ordinary people as powerless groups who are struggling with illegitimate environmental practices from the state increases stereotypes of local people. While journalists intensify environmental conflicts in news by using rhetorical language, the issue of the rights to manage the environment of local people is underrepresented in the news narrative. Although newswriters are active in employing extended strategies to reflect environmental injustice enacted from failed bureaucratic systems in the country, this stereotype contributes to the disempowerment of Thai citizens, especially working class people.

Finally, the stereotype encourages the disengagement of the middle class from environmental problems due to primary definitions about environmental conflicts in newspapers which are initiated by high status news sources. Also, the working class and rural people are portrayed as the victims in environmental hazards triggered by climate change. Concerning the context of Thailand, the largest proportion of greenhouse gases is from energy sectors. By this, the middle class in urban areas who have high-carbon lifestyles seem to be disconnected from climate change discourses presented in newspapers. In this sense, the newspapers fail to acknowledge the hazard from environmental changes that can affect people in the city. This does not mean that there are equal dangers to people in all classes; in fact, less powerful people in the country are at the forefront of the effects of an uncontrollable future as it is stated that "pollution follows the poor" (Beck 1999, p.5). However, the important point of this argument is the question of the capability of news institutions to present these unequal and diverse forms of risk in climate change to the public. In order to do this, it requires news reports that allow multidimensional aspects of risk in climate change, especially within the local aspect of Thai society, unless climate change literacy is substantially disrupted from victimisation narratives.

5.6.3 The polar bear and rhetoric of risk in climate change

The analysis of three newspapers illustrates that during the seven months prior to the COP21 meeting, Thai newspapers reported the risks of climate change with iconic animals. Also, rhetorical strategies were utilised to describe and amplify the dangers of climate change.

In terms of news images that present the struggle of rare animals, this study shows that they were usually portrayed as the victims of a harsh environment that is the consequence of climate change. This representation was significantly found in news articles related to extreme weather events. Moreover, some iconic breeds such as polar bears and whales significantly appeared in news images combined with rhetoric to convey sympathy with the fate of the animals. The following is an example of a news image in the agricultural section of *Thairath*.

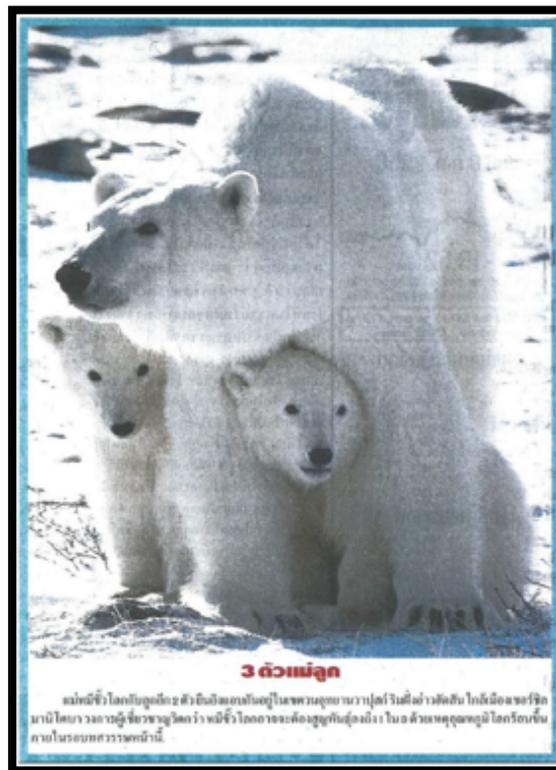


Figure 5.15, The news image published in the agricultural news section of *Thairath*, 10 July 2015, p.7

The image of polar bears standing still, directly in the centre of a long-shot frame, staring back to us from a wild, distant location, implies the sense of vulnerability of species to survive in their original habitats. The caption of the news image states:⁵⁹

Three of us: Mother and children: A female polar bear and her two children cuddle together in the Wapusk national park, around Hudson Bay located near Churchill, Manitoba. The experts are worried about its extinction, which might harm one third of the overall polar bear population in the next century, caused by the rise of global temperatures.

Although the analysis is similar to previous research (Jaspal and Nerlich 2014) that ensures the pervasiveness of polar bear images in news stories about climate change, this again brings significant questions related to influential factors in the news production process of the newspapers. The presence of this news image seems to be the result of the output of churnalism. Apparently, the pervasiveness of polar bear images in Thai newspapers during the seven months of this study confirms previous research (Salathong 2011) that indicates the dependency of Thai news agencies on international news agencies.

I thus further argue that the presence of polar bear news images in the agricultural news sections in popular newspapers related to the attempt to manage news holes in a day. While the agricultural news section of *Thairath* supposes it to be localised, the image of polar bears and the caption that is not related to current affairs about agriculture in the country has been published continuously. It seems that news content related to climate change supplied from international news agencies has become conveniently tactical to resolve news hole issues (further discussed in Chapter 6).

This situation reflects that the representation of climate change issues in popular newspapers is influenced by complex factors. It is not merely the matter of climate change itself that leads to the publication of such news images but also the factors from marketing and sales. Arguably, the presence of climate change news in popular newspapers in Thailand affirms that the content provided by international news agencies is increasingly dominant in the local content of Thai newspapers. In terms of climate change related news, findings in this study observe that both foreign news and local news in local popular newspapers are dominated by subsidies from international news agencies. For example, the COP21 news

⁵⁹ excerpt from “3 ตัวแม่ลูก” (Sam Tua Mae Loog), *Thairath*, 10 July 2015, p.7, Appendix 13

reports which appeared on the international page of *Thairath* features only celebrity leaders from other countries without any movement from Thailand's representatives; also, polar bear news images are published in its agricultural section. The dependency on international news agencies is the answer to reducing costs and finding the content that has enough news value to resolve news holes. In this sense, the idea of news commodification in organisations (Manning 2001) seems applicable to the representation of climate change in Thai newspapers. It was mentioned that:

news commodification is increasing the dependency of news organisations to the content provided by international news agencies. This leads to the homogeneity in foreign news reporting and the local news because the news content will reflect the news value of limited global agencies (ibid., p.56).

As a result, climate change news reports are presented with a global view in Thai newspapers. In doing so, newsworthiness embedded in news related to climate change implies that the significance of climate change problems is beyond specific countries but is a matter of global urgency. This newsworthiness increases the power of climate change discourse in society where diverse actors are utilised to validate their environmental claims as in the discussion in sub-section 5.5.3.

Concerning the representation of risk in climate change in Thailand, portraying polar bears in news images tends to distance the reader from the idea of climate change risks, bearing in mind that Thailand is a tropical country where the greatest risks are the rising sea levels. In spite of exploring local effects from climate change, newspapers in the country feature the effects of climate change using polar bears, whales, and species located in other parts of the world. This representation can dissociate climate change from the daily perception of news readers in the country.

Further than utilising iconic animals to intensify climate change risks, this thesis's research found that a number of language strategies were used to frame news stories as dramatic stories. The strategies employed to intensify the degree of risk includes metaphoric phrases, stronger modal verbs, synecdoche, and passive sentences. Furthermore, the analysis shows that hard news reports and alternative news narratives employ similar rhetorical devices. However, the degree of using these rhetorical devices is different. Hard news strictly follows an inverted pyramid structure that limits the flexibility to employ narrative devices, while the alternative narrative supports the variability of language usage. According

to the analysis, special reports and news analyses that applied rhetorical devices do not merely intensify the risk of climate change. These devices also convey the particular positions that journalists are standing for, for example, the questionable intention of reducing emissions, moral aspects of environmental disasters, and the dilemma of social justice that is involved with climate change discourse. Rhetorical devices also allow journalists to emphasise particular views as their own voices to news stories no matter that such arguments were supported by formal news sources. The following examples in table 5.8 demonstrate the rhetorical devices employed in news related to climate change.

Table 5.8, The narrative devices found in headlines and leads of news articles

headline	body
Chao Phraya drought ‘will last till 2017’⁶⁰	[...] the El Niño effect <u>would</u> result in a repeat of this year’s weather patterns [...] <u>If</u> the forecast is correct, it means that we will face serious water shortages in the long run. <u>If</u> we can’t save water in the agricultural sector, we can’t survive the water shortage crisis [...] They <u>should</u> prepare to preserve water as they <u>might</u> face water shortages or salty water [...].
<u>Tumult in the sea heralds bad times. Thai fishermen are at the forefront of climate change and feeling the effects</u>⁶¹	[...] In 2010, the fisheries sector <u>was shaken</u> by warmer sea temperatures that caused [...] On the other side of the development rush, at <u>the heart of a proposed site</u> for the Pak Bara deep seaport in Pak Nam [...]. Local folklore says it is likely to come from the northwest while combining all 12 wind passages at once – a kind of extreme wind that will end the world. Mr.Sanan (news source who is local Muslim fisherman - researcher) said, “God gave us an abundant sea so the grassroots people can sustain their lives. The end of the world might come. But his mercy will remain if we care for the earth.”
195 countries agree on temperature increased limit at ‘1.5’ degree⁶²	[...] to end <u>this wheel of evil</u> (refer to climate change – researcher) is implementing the clean energy [...]
Govt feels heat on climate deal⁶³	[...] the time <u>to heal</u> the world [...]

⁶⁰ from “Chao Phraya drought ‘will last till 2017’ ” , *Bangkok Post* , 2 October 2015, p.4, underlining not original emphasis, appendix 26

⁶¹ from “Tumult in the sea heralds bad times”, *Bangkok Post* , 7 December 2015, p.4, underlining not original emphasis, appendix 15

⁶² excerpt from “195 ชาตติลงนามคุมอุณหภูมิโลกเพิ่มต่ำกว่า ‘1.5’ ” (195 Chad Longnam Kum Unahapum Look Peum Tum Kwa ‘1.5’), *Krungthepturakit*, 14 December 2015, p.16, underlining not original emphasis, appendix 9

⁶³ from “Govt feels heat on climate deals”, *Bangkok Post*, 14 December 2015, p.1, underlining not original emphasis, appendix 14

According to the illustrated examples, it can be seen that the unforeseen risks related to the devastation of the environment were visualised by referring to particular subjects such as war and spiritual aspects that are more familiar to its readers. On the one hand, these strategies assist journalists in reaching richer explanations of the situation; on the other, this exaggeration discourages self-resilience. Presenting climate change within conflict angles in news such as the struggle to maintain international relationships, the struggle between powerful actors and the marginalised, and the battle of humans and harsh environment possibly lead to public misunderstanding of climate change. In fact, it is more precise to approach risk in climate change as an uncontrollable phenomenon on a global scale that requires adaptation rather than framing risk as the battlefield of good and evil.

To conclude, the analysis from the three newspapers over seven months shows that elites and officials are the primary-definers in news related to climate change. The structure of hard news narratives allows the primary-definers to advance climate change discourse to legitimise their environmental claims and environmental practices. Meanwhile, the opinion from other actors in climate change related news, such as NGOs and ordinary people are used to balance news stories. Moreover, the analysis indicates that ordinary people, especially people in rural areas, are constructed as victims in news narratives to intensify conflict angles of news stories. News related to climate change effects tend to portray ordinary people as victims. It can be seen that the effects of climate change are portrayed with news images of iconic animals that are not resident in the country. These news images raise the sympathy and awareness of the reader to climate change consequences but distance the effects of climate change from the daily lives of readers in Thailand.

I argue that the utilisation of hard news narratives that reflect uneven definitional power relations of actors in environmental struggles, is associated with the characteristics of Asian journalism and patronage culture in Thai society. In doing so, newspapers are the places that allow primary-definers to validate their environmental claims by supporting them with climate change discourse. According to this, newspapers are not merely the agents which empower climate change knowledge by addressing climate change as a global agenda, but also the places where environmental operations are engaged with climate change discourse that makes such environmental practice become “common sense” to the public, for example, the operation of the global warming lawsuit. In relation to the operation of primary-definers, constructing ordinary people as victims can discourage climate change

adaptation in society. The involvement of the middle classes with the climate change problem is also underrepresented in news related to climate change.

Finally, the analysis of climate change news from three newspapers reflects that the representation of climate change in news reports results from diverse factors in news production processes. While patronage culture and socio-political factors influence how sources are selected in climate change related stories, the impact of sales and marketing, which leads to news commodification, results in churnalism in popular newspapers. Furthermore, the structure of news narratives, namely hard news, plays vital roles in shaping the representation of issues related to climate change. These factors related to news production processes are further discussed in Chapter 6 on the basis of findings from interviews with journalists.

5.7 From climate change issues to environmental claims and discourses in Thai society

The section provides a discussion that answers research question 3: what is the nature of the debate - particularly with respect to truth claims - concerning climate change in these newspapers? The section discusses environmental claims made by various claim makers in news reports about climate change. The findings arise from the analysis of reportage speech of the commentators found in news related to climate change from three newspapers over seven months. This section comprises four subsections which discuss the present environmental claims, the factors related to journalistic norms and cultural-society that influences claims made and the absence of particular environmental discourse. It will also address the implications of these environmental claims to climate change literacy.

5.7.1 The influence of the web of facticity to the pervasiveness of bureaucratic discourse and managerial discourse

Due to the fact that officials and experts are the primary-definers in news related to climate change (discussed in section 5.6), the examination of reportage speech in hard news shows that bureaucratic discourse and managerial discourse are utilised by the primary-definers to claim the legitimacy of environmental practices. In doing so, the facts

about climate change problems presented in news reports are defined from the perspective of bureaucracy and management. Arguably, examining the reportage speech of the officials in climate change related news reveals that facts about government policies, plans, and official practices related to environmental issues are advanced by primary-definers. Specifically, the opinions from officials are usually advanced in hard news without supported research findings or statistics. I argue that the bureaucratic and administrative discourses in news related to climate change show a tendency to imply that climate change agendas are involved with national environmental policies by the government. This tendency reflects “discourses of extroverted domestication” (Olausson 2014, p.716) in climate change content appearing in news reports.

In terms of the international news agenda, namely the COP21 meeting, hard news from three newspapers portrayed only the opinions advanced by delegates from powerful countries. In doing so, the arguments that focus on the challenges of the nations to reach consensus in the meeting and possible schemes to reduce greenhouse gases are prioritised. This representation of the COP21 meeting in newspapers implies that the success of solving climate change problems apparently depends on national management. In relation to the pervasiveness of these discourses, the aspect that portrays the COP21 as politics of reducing CO₂ between developing countries and developed countries is manifested in the news reports. Table 5.9 demonstrates examples from reportage speech of the primary-definers that enacts the politics of climate change between developed and developing countries.

Table 5.9, Reportage speech and news sources that applies bureaucratic discourse in climate change mitigation to news articles

Bureaucratic discourse in climate change mitigation	Primary-definer	Newspaper
<p>...The cost of meeting the 7% target – equal to 23 million tons of greenhouse gases, based on an estimation of greenhouse gas emissions from the ministry’s last year survey in 2014 – would be the responsibility of the government, with additional assistance from local business operators on a voluntary basis. <u>The 20% reduction will require international financial assistance</u>, he said.</p>	<p>Prasert Sirinapaporn, director of the Climate Change Management and Coordination Division, at the MNRE</p>	<p><i>Bangkok Post</i>, 17 July 2015, p.3</p>
<p>The emissions of Thailand equal <u>0.9% of global emissions</u>. Importantly, the amount of national emission is an increasing trend, while internationally is trying to limit the temperature rise to 2 degrees in this century. The aim is to ensure that <u>global nations collaborate determinedly to control their emissions</u>. In 2012, the cabinet approved Thailand to join the UNFCCC [...] Thailand will operate emission reducing schemes in the energy sector, as well as increasing renewable energy, enhancing energy saving [...] The main scheme to reach the targets of the country is implementing publicity campaigns to Thai people to cooperate with the government</p>	<p>Natarika Wayupapnitipon, Vice president, Thailand Greenhouse Gas Management Organisation</p>	<p><i>Krungthepturakit</i>, 27 July 2015, p.16</p>
<p>...Four sectors which will focus on reducing emissions at the beginning of the plan are energy, transport, waste and industry. <u>The convention assessed INDCs submitted by 170 countries including Thailand</u>. The plans have the capability of limiting the forecast temperature rise to around 2.74C by 2100...</p>	<p>Prasert Sirinapaporn, director of the Climate Change Management and Coordination Division, at the MNRE</p>	<p><i>Bangkok Post</i>, 26 November 2015, p.4</p>
<p>The premier asked experts to conduct a study on <u>whether the industrial sector will suffer if Thailand goes ahead with the target in the meeting of officials ahead of his participation in the United Nations Framework Convention on Climate Change (UNFCCC)</u></p>	<p>Weerachon Sukondhapatipak, deputy spokesman of the government</p>	<p><i>Bangkok Post</i>, 1 December 2015, p.</p>

Bureaucratic discourse in climate change mitigation	Primary-definer	Newspaper
<p>Land transport must be reduced and rail transport expanded across the country. Thailand also will implement measures to prevent forest encroachment, ensure better water management and implement a haze management roadmap [...] Thailand <u>would work with the international community</u> to reduce greenhouse gas emissions. Thailand <u>had thrown its support behind a new universal agreement</u> for a legally binding reduction in greenhouse gas emissions and expected negotiations among countries would be a success ... “Green industries must be started to generate income while cutting greenhouse gas emission”</p>	<p>Prayut Chan-O-Cha, the Prime Minister of Thailand</p>	<p><i>Bangkok Post</i>, 2 December 2015, p</p>
<p>The PDP aims to reduce gas supplies, the main source of electricity, from 70% to 37% by the end of 2036 while increasing renewable energy supplies from 7% to 20%. But also included in the agenda is a plan to increase power from neighbouring countries from 6% to 15%, and coal imports from 10% to 23% ... “Coal-fired power plants are a must-have and the best solution to secure power demand is to place the plants near the spot water is being used” [...] Even though coal supplies increase emissions, the overall greenhouse gas emissions per electric unit will decline due to decreased use of gas supplies... <u>PDP would balance security, the economy and ecology while addressing climate change issues</u> [...] renewable energy is not stable enough for consistent power generation.</p>	<p>Twarath Sutabutr, director for the Energy Policy and Planning Office (EPPO)</p>	<p><i>Bangkok Post</i>, 5 December 2015, p</p>
<p>Thailand believed <u>developed countries should accept the responsibility for funding developing countries’ efforts</u> to reduce greenhouse gas emission. [...] Thailand will chair the G77 next year, responsibility will weigh heavily on Bangkok if the Paris Agreement does not conclude with a “true agreement”</p>	<p>Prasert Sirinapaporn, director of the Climate Change Management and Coordination Division, at the MNRE</p>	<p><i>Bangkok Post</i>, 9 December 2015, p</p>

The pervasiveness of bureaucratic discourse and managerial discourse is also shown in the local news agendas related to climate change. For example, the news report in *Thairath* mentioned in the headline, “Bangkok Metropolitan Administration launches master plan on climate change; Bangkok is suffering from toxic gas and fluctuated sewage”⁶⁴. This news reports the operation as creating a master plan for anticipation to climate change by the Bangkok Metropolitan Administration (BMA). The 14.71 column inch news offers only directions and plans to solve the environmental conditions of Bangkok that were explained by the Assistant to the Bangkok Governor. Similarly, the news agendas about the global warming lawsuit are presented with the official claims that solving forest encroachment problems cannot be done without bureaucratic systems and administration procedures.

The analysis thus points out that the pervasiveness of managerial discourse in hard news about climate change in Thailand is relevant to the notion of the “*web of facticity*” (Tuchman 1980). Since the officials are the primary-definers in news related to climate change, journalists tend to depend on their comments to identify particular facts about the news agendas. The similarity between two articles, one from *Krungthepturakit* and the other from the *Bangkok Post* newspaper, evidences the impact of the web of facticity in the newsgathering processes of the two newspapers. It seems that journalists made sense of the COP21 news from the facts identified by the officials in a press conference. The analysis shows that these two articles employed similar news sources which announced governmental plans to the COP21 meeting. Therefore, the facts reported in the two news articles are subtly different from each other. While the *Bangkok Post* had the headline, “Kingdom aims to cut emissions by 25%”, *Krungthepturakit* mentioned in its headline, “PM will pledge to stop global warming on Paris Stage at the end of November”.⁶⁵

Accordingly, neither the scientific nor other environmental perspectives are utilised to frame news agendas in this study. On the contrary, environmental news agendas, namely the COP21 meeting, the global warming lawsuit, and others, were built upon from managerial and administrative viewpoints. While climate change is a multi-dimensional issue, using the web of facticity increases the dominance of particular aspects raised by powerful actors in society. Also, it seems that journalists discard other vital perspectives such as climate change science, green economics and adaptation to climate change, for

⁶⁴ excerpt from “กทม.จัดทำแผนแม่บทสภาพอากาศ เผยกรุงเทพมหานครวันพิษน้ำเสียสิ้น” (Kor Tor Mor. Jadtam Pan Maebod Sapab Akad Peuy Krungthep Auam Kwanpid Namsia Lon(, *Thairath*, 22 July 2015, p.10, appendix 27

⁶⁵ author's translation from “นายกชูดโลกร้อนบนเวทีปารีส” (NaYok Choo Lokron Bon Watee Paris Sin Por.Yor.), *Krungthepturakit*, 25 November 2015, p.15 (Appendix 28)

constructing the idea to present news stories. In consequence, climate change topics represented in hard news can convey misperceptions that government policies and international negotiations are the key factors to anticipate climate change. According to this analysis, the findings confirm previous research (Tillinast 2013). Arguably, climate change is framed with a political-economic overview in news. This leads to the misconception that governments are solely responsible for solving climate change by abiding by international agreements, regulations and other political activities.

5.7.2 The urgency of climate change mitigation and lack of adaptation aspects

In relation to the pervasiveness of bureaucratic and managerial discourse advanced by the officials mentioned previously in subsection 5.7.1, the claim that climate change mitigation is the most urgent matter regarding climate change issues is prioritised in news reports. The analysis shows that news articles from the three newspapers address the urgency of climate change mitigation with the requirement that Thailand must comply with global trends in order to maintain international relationships. This claim is usually mentioned in the leading part of news reports, for example:

the Delegation of the European of Thailand's headquarters and the Ministry of National Resources and Environment join hands to announce readiness for the Paris COP21 commitment. The Prime Minister will announce the global warming reduction policy-aim to cut 20-25% of emissions before 2030. There is a ready to bind international agreement to keep the world's temperature below 2c degrees.⁶⁶

As Thailand has pledged to the Paris Agreement, it is compulsory to initiate it as a national plan because we are audited internationally. If we fail, it would affect the country's recognition, trading pressure and environment. According to this pressure, we are required to adjust.⁶⁷

I argue two vital issues concerning the representation of climate change in Thai newspapers. Firstly, the prevalence of climate change mitigation in hard news reports possibly obscures the real issue of reducing emissions in a local context. Arguably, newspapers tend to feature climate change mitigation with international matters in hard news, the context about CO₂ release in the country is omitted from hard news narratives.

⁶⁶ excerpt from “นายกฐลดโลกรอนบนเวที่ปารีส” (NaYok Choo Lokron Bon Watee Paris Sin Por.Yor.), *Krungthepturakit*, 25 November 2015, p.15 (Appendix 28)

⁶⁷ excerpt from “GR: วัดอุณหภูมิโลก, ไทยร่วมขบวนลดก๊าซเรือนกระจก 20-25%” (GR: Wad Unapum Lok, Thai Ruam Kabuan Lod Gas Ruen Krajok 20-25%), *Green Report: Krungthepturakit*, 24 December 2015, p.8 (Appendix 10)

This analysis reflects that hard news narrative is unable to reach the dilemma of PDP2015 that is a significant issue in reducing carbon emissions in the country. According to the representation in hard news, climate change mitigation is shaped as the elite activities which took place abroad. Therefore, hard news narrative about climate change mitigation in the three newspapers cannot deliver local factors that related to national mitigation, for example, energy consumption rate in vital sectors and the public transportation system.

Secondly, prioritising mitigation issues in news can misshape public understanding about climate change in Thailand. Although reducing carbon emissions is vital to climate change anticipation, underrepresenting the issues related to climate change adaptation can undermine climate change resilience in Thailand. According to the National Climate Change Master Plan 2015-2050, climate change adaptation is mentioned as the first priority (Office of Natural Resources and Environmental 2015). However, Thai newspapers neglect the aspect about climate change adaptation from their coverage. I argue that the absence of climate change adaptation discourse in news results from using the web of facticity in news production. Arguably, the idea of adaptation is unable to emerge in news related to climate change because journalists tend to define facts in news with the opinion of the officials. On the contrary, the role of ordinary people in news is limited to eyewitnesses or victims of particular environmental problems. This situation limits participation of ordinary people in anticipation of climate change. Bureaucratic and administrative mind sets in news demotes the role of “citizen” into “consumer” who is an “environmentally conscious consumer” (Jamison, 200, p.179).

Importantly, understanding climate change adaptation requires comprehension about local resilience, which emerges differently along geographical factors. While Thailand is a centralised state, authoritative news sources focused on the environmental regulations both at national and international levels rather than exploring adaptation opportunities in rural areas. According to this analysis, the government officials who are selected as the news sources in climate change related news are incapable of giving essential facts about local resilience. Within hard news narratives, the reports fail to acknowledge the complex nature of climate change. The situation related to climate change thus tends to be presented from partial facts that were gathered from spots of events. Furthermore, the analysis of news articles from the overall seven-month period maintains that there is less insight into climate change adaptation issues in the news sphere. This marginalisation allows researchers to explore further around the issue of news production processes, which will be discussed in Chapter 6, to understand relevant circumstances in environmental news production.

Finally, the representation of climate change in Thai newspapers cannot contribute to comprehensive public understanding about climate change. A lack of climate change adaptation aspects emphasises the idea of anthropocentric climate change in society. In other words, news media have failed to acknowledge the existence of humans as one of the agents residing in the ecological system. This holistic approach contributes to the understanding that human activities and the changing of the ecological system are interrelated. In this sense, anticipating climate change requires the capability to adapt to environmental changes. On the contrary, a lack of climate change adaptation discourse in news hence steers up the representation that portrays climate change as a vital threat to humankind. This perception is also reflected in conflict news values embedded in hard news, which metaphorises climate change problems as a battle between humans and nature.

5.7.3 Taking for granted risks in climate change

The analysis of news coverage in three newspapers indicates that reportage speech made by the primary-definers in news emphasises two major risks of climate change. The first is the environmental risk and the second is the economic risk. Even though these risks in climate change were stressed by the claim-makers, their comments are neither supported by the science of climate change nor other related statistics. In other words, it seems that risks in climate change advanced by the claim-makers were utilised to intensify the urgency of particular environmental practices that are claimed to resolve global warming. The following examples demonstrate arguments about risk in climate change advanced by the claim-makers in news.

- General Akachai Chansri, Advisor to the Natural Resources and Environment Ministry said the harsh effects from climate change and significance of greenhouse gases evidence that the change to low carbon society is necessary to Thai society, in order to develop the country to sustainability, as well as climate change resilience. My experience shows that three ideas, which are the King's philosophy, 'sufficiency economy', the development to a low carbon society, and green growth, are the same thing.⁶⁸
- Prasert Sirinaporn, Director of the Climate Change Management and Coordination Division said that Thailand aims to reduce emissions by 20-25% before 2030, according to the studies about climate. Thailand can reduce emissions by 20% from

⁶⁸ excerpt from “ ‘อาเซียน’ เสี่ยงอากาศเปลี่ยนแปลง แนวดันสู่ ‘สังคมคาร์บอนต่ำ’ “ (‘Asian’ Seang Akad Plean Nae Dun Soo ‘Sang Kom Carbon Tum’), *Krungthepturakit*, 27 July 2015, pp.15-16, italics are not original emphasis. (Appendix 29)

the national capacity. However, Thailand must receive international funding to reach 25% reduction because the investment to reduce emission would cost a lot⁶⁹.

- Meeting officials ahead of his participation in the United Nations Framework Convention on Climate change (UNFCCC) yesterday, the premier asked experts to conduct a study into whether the industrial sector will suffer if Thailand goes ahead with the target. Deputy government spokesman Werachon Sukondhapanitpak said that greenhouse gases, especially CO₂, are blamed for the rise in world temperatures. The issue has become a major environmental concern, causing debates over control of energy usage.⁷⁰

Previous examples demonstrate the risks in climate change that are claimed as severe but which lack empirical data to gain support from the officials. Moreover, it can be seen that climate change discourse made by the officials transforms the definition of sustainable development to engage with the philosophy of a sufficient economy that increases the sense of nationalism (discussed further in section 5.7.5). It is arguable that the discourse of climate change, especially the risks in climate change, is over claimed to support particular arguments of the officials. Despite the fact that the risks in climate change are indicated without supported statistics from the officials as illustrated in previous illustrated examples, the investigation of their claims is neglected from hard news reports. The analysis shows that related contexts and counterarguments to risks in climate change, claimed by the officials, are absent in news articles related to climate change in this thesis's research.

In addition, the examination of alternative news narratives in climate change stories also shows that powerful news actors similarly dominate the definition of risks in climate change illustrated in alternative news narratives. According to the discussion in section 5.4 - News narrative and embedded environmental truth-claims in news related to climate change - journalists tend to embed particular environmental claims about climate change within alternative news narratives. Even though the structure of special reports, news scoops and news analyses allows more opportunity for journalists to present diverse perspectives to risk in climate change, the facts related to risk in climate change are similarly defined by elites in society. Moreover, the advantages of alternative news narratives are used to intensify conflict aspects and victimisation in news.

In this light, the lack of criticized viewpoints on discourse of risk in climate change draws the questions related to perception to climate change of the newswriters. Arguably, it

⁶⁹ excerpt from “นายกฐโลกร้อนบนเวทีปารีสสิ้น พ.ย.” (Nayok Choo Lod Lokron Bon Watee Paris Sin Por.Yor.), *Krungthepturatkit*, 25 November 2015, p.15, italics are not original emphasis. (Appendix 28)

⁷⁰ excerpt from “PM Weighs emissions goal effect”, *Bangkok Post*, 1 December 2015, P.2. (Appendix 19)

seems that risks in climate change are taken for granted by newswriters. Over claiming of risks in climate change, as well as misleading climate change discourse advanced by the officials, are published as facts in news related to climate change. In terms of environmental risk, journalists totally agree on its certainty (See more discussion in Chapter 6). On the one hand, climate change certainty has been already proved by the scientific community. The idea that environmental risks in climate change are absolute can thus be presented in news reports about climate change. While content analysis in climate change news conducted previously in the US (Boykoff 2008) indicates that balanced reporting has induced misrepresentations of climate change certainty, Thai newspapers do not provide critical perspectives to environmental risks claimed by news actors. However, failing to investigate the claims about environmental risks from climate change can bring misunderstanding of climate change effects in society, since environmental risks in climate change are varied and depend on geographic differentials. In terms of Thailand, newspapers fail to demonstrate particular dangers that directly affect the local environment such as coastal destruction across the outskirts of Bangkok. Moreover, due to the lack of criticised aspects in hard news reports, environmental practices, which are claimed to resolve climate change problems made by the officials, are left unproved to society. Accordingly, this finding similarly confirms previous research (Chongkolrattanaporn 2011) that criticises the intention of increasing the climate change literacy of power institutions in Thailand. This analysis of climate change news from three newspapers also indicates that climate change discourse in news endorses natural resource management of elites in the country rather than providing society with diverse environmental facts related to climate change.

Here, I raise the arguments from two dimensions concerning journalism as a profession and a social institution. Firstly, there is the need to examine further what perception journalists have toward climate change issues. It is important to identify their knowledge and attitude toward environmental risks underpinning their performance to criticise the definition of risk in climate change commenced by powerful actors. As a journalist, the accountability to investigate diverse facts is a fundamental idea of the profession. On the contrary, this finding shows that claims about risks of climate change receive significant credibility to be presented without supporting scientific data. Accordingly, this thesis's research provides further discussion about the perception of journalists to climate change in Chapter 6 to verify the idea that newspapers rely on the web of facticity to identify the risks in climate change.

In a broader sense, the second argument concerns news organisations as the institutions which produce environmental ideologies in the country that construct the definition of reality to society. In this matter, the production of climate change news is the process that allows the presence of particular environmental facts that are acceptable to people in society. Due to Thailand owning patronage value that prioritises entitled authorities, quoting officials seems normal for stating the truth in society. Other than social pressure, news organisations operate under the condition of laws and marketing pressure. Therefore, employing the web of facticity in news production has become a necessity for news organisations to survive the pressure. From this perspective, definitions of risks in climate change which, in fact, depend on personal experience, are not valued equally by news organisations but are dominated by powerful institutions in society. Arguably, while ordinary people have their own meanings of risk in climate change, it seems that news genres prioritise the definition of risk in climate change from powerful institutions in Thailand. This study thus shows that neither hard news nor alternative news narratives give the meaning of risk in climate change that is advanced by ordinary people. While the structure of hard news grants the power to identify risk in climate change to the officials, the alternative news narrative increases the stereotype of victims of climate change. Accordingly, the discourse of risk in climate change reflects the priority of definitional power (Allan 2011) in Thai society. In the midst of environmental struggle in Thailand, the definition of risk in climate change exhibited in newspapers unveils the interrelation of climate change knowledge and government institutions in the country. While the news genre reflects the power of environmental management of the government, it is shown that the power of civil movements is acknowledged by journalists but they have less significance to society.

5.7.4 Nationalist ideology in climate change discourse

The analysis of news related to climate change from three newspapers demonstrates that reportage speech made by officials tends to claim that the idea of sustainability is similar to the concept of a sufficiency economy⁷¹. Sufficiency economy philosophy (SEP) is a

⁷¹ the concept coined by the King Bhumipol Adulyadej is a powerful discourse in Thai society. Sufficiency economy philosophy (SEP) is the name of a Thai developmental approach that was firstly recognised by the public in 1997. The speech made by the late king in his birthday ceremony in 1997 briefly mentioned the definition of SEP. However, the late king addressed SEP as the application to survive the Asian economic crisis which took place during this time. The concept has been elaborated upon by Thai academics and agencies and promoted by the Government of Thailand. It is claimed that SEP is applied by over 23,000 villages in Thailand, which are under the patronage of the king. The status of the concept is elevated to be the philosophy of the country.

powerful discourse in the country. This is because the idea originates from the powerful institutions and their relations to Buddhist values, the middle path⁷². Therefore, SEP is addressed by diverse actors in Thai society to illustrate native philosophies in dealing with the problems which arise from developments in the modern era such as environmental destruction and climate change. In relation to its power, it has to be acknowledged that the virtue of sufficiency economy, which emphasises three principles; moderation, reasonableness, and self-immunity, is associated with the concept of sustainable development. Therefore, SEP gains recognition from The United Nations Development Program (UNDP) whose impact is felt greatly in the global South.

The analysis of reportage speech in news related to climate change reveals that SEP is promoted by the Thai government as a fundamental idea, which the government utilises to address climate change. It has been claimed that the balanced way of living, which is a concept of SEP, can be utilised by individuals to the macro level of the country. Similarly, the official also addressed the fact that SEP and sustainable development are similar approaches intending to resolve destruction in the environment. The following examples illustrate the reportage speech published in news related to climate change.

General Ekachai Chansri, Special Adviser to the Ministry of Natural Resources and Environment spoke about the harsh impact from climate change and the implications of greenhouse gases. ‘We believe that the transformation to a low carbon society is necessary in Thailand, in terms of sustainable development and fighting the climate change problem. My experience indicates that three main things, which are the King’s philosophy of sufficiency economy, low carbon society, and green growth, are similar developmental directions. [...] Importantly, this implementation will reduce forest encroachment and will gain sustainable community forests. However, all implementations in the country are aligned with the big idea of sufficiency economy of King Bhumipol’s philosophy. According to this idea, there will be economic operations, energy conservation, and maintenance of sufficiency. These operations will lead to a low carbon society that will reduce the impact from environmental disaster.’

Mrs. Nattarika Wayupapnitipon, Assistant to the Vice President of the Thai Greenhouse Gas Management Organisation and the Executive of the CICT centre said that Thailand’s emissions are at 0.9% globally. This amount is increasing, despite the fact that the world is trying to control the world’s temperature, rising by less than 2 degrees in this century. The aim is to earn cooperation from all countries. Thailand joined the INDC in 2015 to announce to the world community that

⁷² According to the ideology of Buddhism, “the middle path” ascribes to keeping a moderate lifestyle, as well as avoiding the extremes of both sensual indulgence and self-mortification. The middle path is the “Noble Eightfold Path” that consist of eight components, which complement each other to reach peace and live human life with wisdom. Moreover, the concept of the middle path can be related further with spiritual experience, for example, the state of mind that is neither affected by happiness nor suffering. The highest goal of the “Noble Eightfold Path” is reaching nirvana.

Thailand is pleased to participate in reducing emissions to 7-20% by 2020. This reduction rate of 7% comes from national operations. It is capable of reaching 20% if the supports are granted from the international arena. Thailand will start the operations in the energy sector [...], all of the mentioned operations are calculated together to prove that Thailand can reduce its emissions. Importantly, the mentioned operations will partly help in the reduction of forest encroachment, and increasing sustainable community forests. [...] However, all of the operations will be conducted under the concept of the King's philosophy and sufficiency economy. Also, the operations would be economically organised, energy saving, and sufficient. This concept will lead to a low carbon society, which will reduce the harsh effect from environmental disasters.⁷³

Further than the attempt to generalise the idea of SEP to the concept of sustainable development, the analysis shows that SEP is advanced to support the idea of adaptation to climate change. The following is an example from the news that the "Chao Phraya drought" will last till 2017"⁷⁴. The article provides comments from Wiwat Salyakanthorn, Chairman of the Agri-nature Foundation:

I see no choice left, except self-reliance, especially for people living in the capital. They should prepare to preserve water as they might face water shortages and salty water. This will happen and we can't avoid it. Each community should have its ponds for water storage, which is a way of self-reliance suggested by His Majesty the King, who is a world-class master of water management.

Accordingly, I raise two arguments concerning environmental discursive practices in news related to climate change. Firstly, the fact that the application of SEP contributes to improving the quality of life to the modest group in Thailand is undeniable, although the discourse about SEP has been exploited by political groups during political struggles in Thailand. To elaborate, the political crisis in Thailand, which is influenced cumulatively by income inequality and corruption, has escalated political disputes widely since 2005. The discourse of anticapitalism and antiglobalisation has been exploited from political groups to gain public support. Also, political groups propagandise that the country should rely on SEP, which is the King's philosophy, rather than capitalism, in order to survive economic imperialism. However, according to Unger (2009), SEP enhances bourgeois values in Thai society. Therefore, the predominance of official sources in news related to climate change who refer to the discourse of sufficiency economy found in this thesis's research thus evidences that the discourse of SEP is utilised to support the status quo of the powerful institutions in the country. According to the analysis of reportage speech in news related to

⁷³ excerpt from "อาเซียนอากาศเปลี่ยนแปลง แน่ระดับผู้ตั้งคม 'คาร์บอนต่ำ' " (Asian Sieng Akad Plian Nae Dun Soo Sang Kom Carbon Tum), *Krungthepturakit*, 27 July 2015, p.17 (appendix 29)

⁷⁴ "Chao Phraya drought 'will last till 2017'", *Bangkok Post*, 2 October 2015, p.4 (appendix 26)

climate change, such presentation reflects that the discourse of sufficiency economy increases the power of managing natural resources and environmental matters to the government.

Secondly, analyses of news related to climate change reveal that the country is struggling to position itself into the global environmental movement. Utilising discourse of sufficiency economy shows the dilemma of environmental management that the government is facing. On the one hand, the necessity of complying with the Paris Agreement is not only as a member of the global community but pressure in international trading is also a concern for the Thai government. On the other hand, fossil fuel is cheap energy that helps Thailand, as a developing country, to stimulate investment rates, although internal conflict over increasing coal power plants is severe. According to dependency on fossil fuels, it is difficult for the country to claim the goal of reaching sustainability in energy and natural resource management. As a result, the officials use the powerful discourse which is sufficiency economy to justify the environmental practices of the government, instead of directly citing sustainable development.

In terms of the portrayal of SEP, the officials use the discourse of sufficiency economy to empower local solutions in managing environmental problems triggered by climate change. The discourse reflects nationalist ideology embedded in the perception of environmental issues. According to the reportage speech in news reports, the officials claim that using SEP does not only solve environmental problems in the country, for example, deforestation, but SEP is also the path to reach a low carbon society. In this sense, while the claim empowers the national ideology of economics, it conveys the idea that climate change problems are the impact of western knowledge, namely, capitalism.

Moreover, the officials engage the discourse of sufficiency economy with the definition of sustainable development. Defining sufficiency economy and sustainable development together ensures the righteousness of natural resource management governed by the official agencies. Arguably, this transformation of discourse in news related to climate change reflects the attempt of the government to affirm global standards in environmental practices in the country. The representation of discourses engaged in climate change issues in newspapers answers to the analysis of Unger (2009) who criticised the fact that sufficiency economy is interpreted as the effort to localize contemporary norms of a globalized market economy. In this light, this thesis's research shows that newspapers are the

places where discursive fields emerge by the influencing of powerful institutions in the country.

5.8 Conclusion

This chapter aims to answer research questions 1-3, which examine journalistic norms that have influences on climate change and environment truth-claims in news related to climate change in three newspapers in Thailand. The claim makers and representation of actors in news related to climate change are also investigated in this chapter. According to the textual analysis of news related to climate change between June and December 2015, the findings and discussion can be concluded as follows.

The findings show that episodic framing is used in news related to climate change in three newspapers. Two news agendas, which are the COP21 meeting in Paris and the global warning lawsuit in Thailand, are reported in the newspapers. I argue that the COP21 News articles that are episodically framed disconnect climate change issues from the context of Thailand. Accordingly, the analysis of news related to climate change in Thailand shows similar relations to other environmental issues that are reported superficially with event-oriented news frames, shown in previous studies (Allan 2002). Concerning the representation of climate change issues in news, especially the COP21 agenda, textual analysis evidences that news policies of newspapers influence the way that news agendas are framed in newspapers.

The investigation shows that churnalism dominates the COP21 news and news related to the environmental effects of climate change in *Thairath*. It can be seen that the newspapers employ secondary data from international news agencies without further sources. This turns the issue of climate change in daily newspapers into a “climate change drama” (Ramos and Carvalho 2000), which cannot contribute to climate change literacy in the country. Moreover, the examination of the COP21 news in the *Green Report* and the *Bangkok Post* reflects that although the *Green Report* has more time and more space in newspapers to produce news articles than the *Bangkok Post*, the COP21 news articles are dominated by official and expert news sources. However, the context of the COP21 is provided in the article and the argument that Thailand is moving in the wrong direction to challenge climate change is raised in the news articles. In comparison, news articles in the *Bangkok Post* published during the final days of the meeting engaged with the agenda of the

COP21 meeting to the local problems of national energy production policies. The newspaper claims that emission targets pledged by the Prime Minister to the Paris Agreement were compromised by the plan to increase coal-fired power plants in the country. Importantly, textual analysis shows that the *Bangkok Post* employed distinctive layout designs for particular news narratives, namely special reports and news analyses that are utilised in the news articles which offer contextuality of environmental problems. In addition, these types of alternative narratives assist journalists in embedding some environmental claims that are unable to be delivered in traditional inverted pyramid news.

Accordingly, I argue that environmental journalists realised that conventional news narrative style, so-called hard news, limits their capability to report environmental problems comprehensively, especially the environmental problems in modernisation such as climate change which are complex. However, they need to maintain the sense of immediacy in news that cannot be delivered in soft-news features. In order to gain the impact of environmental news reports in the prime position of newspapers, newswriters employ narratives of special reports and news analyses in environmental news. In addition, the changing of layout design in these news articles can vividly differentiate them from normal hard news articles. Therefore, the news articles that do not conform to conventional hard news narrative in the main sections of daily newspapers can reach prime positions such as the front page of the *Bangkok Post*. This differentiation, I argue, is the tendency to conserve journalistic standards of newswriters by typification of news. Arguably, since some journalistic norms are relaxed in special reports and news analyses, such as identification of news sources, the newspaper is at risk of compromising professional standards, for example, objectivity in news reporting. Therefore, excluding news narratives which deviate from professional standards is necessary for reporting environmental claims in the news.

The examination of news related to climate change in alternative narratives evidences that a “web of facticity” has less influence on these types of narratives; therefore, the voice of marginalised people is manifested in these narratives. In relation to this, particular environmental claims are embedded in the news narratives. This thesis’s research provides examples of the articles that contain environmental truth claims. These environmental claims seem to suggest that environmental problems in Thai society are the consequences of corruption and injustice of rights to manage natural resources. Moreover, some articles address local wisdom that approaches environmental issues in different ways, distinct from dominant discourses in society, which are scientific discourse and western knowledge. However, these claims are found in the environmental news genre but not the

Green Report, which is a business newspaper. Accordingly, I maintain that journalistic prejudice plays an important role in news framing. The environmental news beat in Thailand has been developed along with the history of conflict in natural resource management. This has resulted in conflicts influenced by the way they frame news articles. According to this, the representation of climate change and environmental issues in environmental news is emphasised by conflict newsworthiness.

In terms of hard news narratives, textual analysis shows that newsworthiness influences the representation of climate change issues in news coverage. It can be seen that the three newspapers focus on the prominence of local and international politicians in the COP21 news report. Moreover, the rhetorical strategies, which are exploited to emphasise the impact on a global scale of climate change, are the headlines of news articles and news images. This emphasis reflects the fact that climate change stories are highlighted with the newsworthiness of impact and prominence. However, the news articles do not provide context and details that give explanations of their newsworthiness. Due to the limitations of hard-news styles, the meaning of climate change is engaged with political actors and its impact as a global agenda. Meanwhile, the science of climate change, as well as adaptation to climate change, are not manifested in the hard news articles. Accordingly, I argue that journalists seem to present that solving climate change is “common sense” in Thai society. The representation of climate change in hard news affirms that the newswriters see climate change as a “public consensus issue” (Tuchman 1980) that is safe to report briefly in newspapers without public criticism.

In consequence, climate change discourse is advanced by the primary-definers, who are the officials and the environmental experts, to support their agendas in local environmental conflicts presented in newspapers, especially the environmental news genre. In doing so, environmental news is not the agent that reflects definition of climate change in Thai society but the domestication of climate change discourse in environmental news is the justification to support claims related to other local environmental politics. This circumstance is shown in the examples of news reports about struggles between local people and the state in the dilemma of building coal-fired power plants. According to this, newspapers are not merely the agents which empower climate change knowledge by addressing climate change as a global agenda but are also the places where environmental operations are engaged with climate change discourse that makes such environmental practice become “common sense” to the public, for example, the operation of the global warming lawsuit.

I contend that climate change discourse in newspapers reflects what news media contribute in “mediascapes” (Appadurai 1996). The representation of climate change discourse in newspapers evidences “glocal” definitions that are initiated by claim-makers. Nevertheless, the power of climate change discourses does not encourage collaboration in solving modernisation environmental problems as mentioned in risk society. Due to the influence of journalistic norms, namely, newsworthiness and narrative structure, climate change discourse is advanced by elite claim makers and supported by scientific knowledge. Accordingly, I argue that the power of climate change discourse shows that climate change knowledge has become a soft power in “ecological neo-imperialism” in Thai society.

The analysis of actors in news related to climate change found that powerful news actors such as politicians, officials, and experts are primary-definers in news related to climate change. This dominance, I argue, relates to characteristics of Asian journalism in Thailand. In this sense, environmental conflicts in Thai society are defined by these high-status news sources in the three newspapers. While environmental conflicts between the state and ordinary people in Thailand are intense, for example, the case of the global warming lawsuit, newspapers construct ordinary people involved in environmental problems as victims. I maintain that this representation can raise public awareness about environmental problems but can also discourage the adaptability of people in climate change anticipation. This is also argued in Farbotko (2005) in the study of the presentation of climate change victims. However, the fact that less powerful people in the country are at the forefront of the effects from an uncontrollable future, as it is stated that the observation that “pollution follows the poor” (Beck 2013), is undeniable.

The final section of this chapter discusses reportage speech in news related to climate change. The analysis of reportage speech in news related to climate change shows that bureaucratic discourse and managerial discourse dominate news articles. Moreover, the aspect of climate change mitigation is prioritised in the article, while climate change adaptation is absent from the three newspapers. Also, the findings suggest that the articles do not provide investigative content or criticism of the claims made by officials and experts. Furthermore, climate change issues are engaged with the discourse of sufficiency economy by the primary-definers. Accordingly, textual analysis shows that climate change is utilised to strengthen nationalist ideologies in the country. The claim that sufficiency economy is similar to sustainable development and can solve climate change problems reflects the

difficulty of the country's positioning in national collaboration in anticipation of climate change.

I argue that this representation is determined by a newsgathering process that utilised the "web of facticity". Therefore, the reality of climate change and truths about environment in the country are defined by the officials. The discourse of risks in climate change reflects the priority of definitional power in Thai society. Moreover, it seems that risks in climate change are taken for granted by newswriters. Over claiming of risks in climate change, as well as misleading of climate change discourse advanced by the officials, are published as facts in the news coverage. Accordingly, the researcher insists that there is a need to examine further what perception journalists have toward climate change issues. It is important to identify their knowledge and attitude toward environmental risk that underpin their performance to criticise the definition of risk in climate change commenced by powerful actors.

Chapter 6

The Analysis of Interviews with Journalists and News Sources

6.1 Introduction

This chapter aims to answer the last question, ‘what factors drive the influence of primary-definers in environmental news production in Thailand?’ From Chapter 5, the discussion of primary-definers in news related to climate change reflects the power of high status news sources in the construction of environmental debates in selected newspapers, especially in news that relates to national policies on the environment. On the contrary, lay people and the working classes are constructed as victims (see section 5.6). This chapter thus further explores influential factors in the newswork that sustain predominance of those powerful news sources in news related to climate change in Thailand.

The issue of primary-definers in news has been widely debated in media studies. Hall et al. (1977) criticises the role of news media to reproduce the definitions made by the elite groups who are political celebrities and some interest groups. The issue of accessibility of powerful people over newswriters and their ability to frame news agendas is investigated by fellow scholars in media studies. Gitlin (2003) explains that newswork closely functions in “the hegemonic culture” (ibid., p.254). The works of journalists shape “common sense” within a society, which sustains the power of bourgeois culture. However, the functions of news media in the hegemonic culture is hidden and complex. Tuchman (1980) reveals the journalistic practices, namely the news net and the web of facticity that encourage newswriters to generalise the officials as the source “who knows” (ibid., pp.91-93). Schudson (2003, pp.34-63), addresses the “media bias” in prioritising expert sources, who are proximate with authoritative people, and who can provide narrow and technical comments on public policies. In the light of these concepts, the power of primary-definers is influenced by the journalistic practices that result in particular journalistic norms, such as newsworthiness and journalistic narratives. In Chapter 5, the discussion based on textual analysis pertains to identify the primary-definers in news related to climate change and the influences of newsworthiness and news narratives on the dominance of these

primary-definers and their claims in news related to climate change in the selected newspapers. This chapter thus further discusses the factors inherent in newswork, especially newsgathering processes, that enhance the priority of the primary-definers in news stories.

This chapter problematises particular factors that enhance the power of primary-definers in newswork. Employing the semi-structured interview with journalists and news sources helps the researcher to obtain insights into news production processes that relate to climate change agendas. This means that the discussion in the chapter derives from the interpretation based on the analysis of both perspectives of journalists and the news sources. Since the primary-definers can have an influence on both increasing and decreasing the salience of news agendas (Anderson 2014), the findings from the semi-structured interview method thus complement the evidence in the textual analysis part to reveal hidden influential factors in the news production activities. In terms of new sources, the governments who hold the image of “the authorized knowers” (Fishman 1978, p.143) have more social credibility to maintain the “objectivity standard” of the newswriters. However, the competing voices from the business sector can also access the news media by providing “information subsidies” to the news organisations. This thus reflects a mutual interest between the powerful institutions and the news institutions as criticised in “the propaganda model” from the viewpoint of the political economy (Herman and Chomsky 1988, pp.1-35). The findings from the semi-structured interviews also include the investigation of particular domestic factors in news organisations such as the news policy.

In terms of environmental issues, some empirical findings (see Anderson 1993; Anderson 1997) evidence that the power of famous politicians is diminishing and the rise of voices of environmental pressure groups such as Greenpeace is increasingly evidenced. However, the situation of environmental journalism in Thailand seems to result in a different scenario. As discussed in Chapter 5, the institutional news sources, namely the officials and experts, can maintain their position of the primary-definers in news related to climate change in Thai newspapers. News coverage shows that environmental debates are defined from the arguments of authoritative news sources (see section 5.7). Paradoxically, the literature review informs that environment journalists distrust authoritative news sources due to their own precautionary perspective to powerful people (see Chapter 3). This circumstance insists on the necessity to investigate deeper in the news production process to understand why the official news sources can maintain their power over environmental news agendas during the usurping of natural resources between the state and the communities in Thailand. It is

ambiguous as to why authoritative actors entirely retain their arguments in environmental debates, particularly in environmental news genres.

This issue is important to the understanding of environmental journalism, especially in the context of Thailand. This is because the socio-cultural background of the country that differs from western countries, for example, the influence of Asian journalism and patronage culture, has an impact on the practicalities of news production. The discussion in this chapter is central to the idea of the news net, news framing, source dependency, and the pressure of news policy and marketing. The perceptions of journalists and news sources toward their profession, organisation, and environmental issues, give insights which illuminate the relationship of journalists and news sources. This sensitive issue is difficult to observe (Anderson 2014). Also, this helps to interpret the idea of “professional standards” held by journalists and leads to a tendency to take for granted the dominant frame “outside consciousness” (Gitlin 2003, p.257). As Schudson (2003) mentions, “all journalism is ethnocentric”, understanding that cultural sensitivity is paramount to this investigation, while Schudson (2003, p.112) concludes that journalists are changing from relying on official statements to their own analytical judgement. To this notion, this chapter therefore also evaluates the possibility of this journalistic trend against the backdrop of the newspaper business and its readership in Thailand.

6.2 The overview of general perceptions related to climate change of journalists in Thailand

This section aims to examine perceptions that journalists have toward climate change issues in Thailand. This thesis’s research takes place during the decline of environmental journalism in Thailand. Meanwhile the business news beat occupies the space of daily newspapers in Thailand in the present day. This circumstance reflects the “mood of the time” (Manning 2001) in Thai society. Arguably, the flourishing of capitalist ideology, which is supported by government policy, is promoted by newspapers. The state exploits news organisations to persuade the “way of thinking” or “governmentality” to the audience. While the industrial news beat in the UK declined in 1979, the industrial news beat is the primary news beat in Thai newspapers in the present day. Due to this circumstance, the interviews are participated in by veteran environmental journalists who are working in either extended news beats, or stations at news bureaux. These journalists also provide alterations of their perspectives resulting from rotation within newswork. Moreover, the interview also includes

the journalists who are involved in producing news agendas that are related to emission reduction, which is the main news agenda that is analysed in the textual analysis part.

The interview with the aforementioned two groups of journalists reflects that they have similar perceptions of climate change. Although the journalists are aware of climate change effects in Thailand, especially environmental effects, they argue that climate change is not an emergency issue for Thailand. This perception discourages manifestation of news agendas about climate change in newspapers. Moreover, perceptions of journalists tend to influence episodic frames of news related to climate change. They contend that journalism is not accountable for reporting the science of climate change (Janthong 2014; Sangtong 2015). In addition, they argued that international news agencies provide accuracy on the climate change newsfeed rather than in-house production. Therefore, they focus on other environmental issues and leave climate change stories to be published in international news sections (Paosri 2016; Sangtong 2015).

Despite their claims, the textual analysis of this study reflects that climate change issues are mentioned in a number of news stories in national news sections. However, this news coverage does not contribute to the environmental framing. On the contrary, climate change agendas are advanced in news to support the environmental practices of the primary-definers in news. While the literature review shows that environmental news beats in Thailand focus on ecological problems stemmed from natural resource policies, it seems that this framing is excluded from climate change news agendas in Thailand. This absence correlates to the perception of journalists who perceive climate change to be a non-emergency problem in Thailand.

Accordingly, the following sections illustrate related circumstances of the newswork in daily newspapers, as well as the perceptions of the newswriters to their profession that allow the prominence of primary-definers in news related to climate change.

6.3 The structural control of news organisations and decrease of environmental aspects in newspapers

This section aims to discuss the structure of news organisations that enhance the accessibility of official news sources to newswriters, finally satisfying the hegemonic culture in Thailand. The structure of news organisations is designed to increase the practices

of the news net (Allan 2011, p.79). News departments are divided into a number of sub-departments either to optimize organisational specialization, in which the news department is comprised of beats and bureaux, or to increase the topical specialisation that comprises expert teams in each topic, for example, financial news and environmental news. Similarly, daily newspapers in Thailand separate their news departments into beats and bureaux. Also, the topical specialisation structure is implemented in daily newspapers, for example, *Thairath* and *Krungthepturakit* which are selected in the textual analysis part, separating their news departments into a number of news desks that increase topical specialisation. Also, they place their reporters along news bureaux at the core Ministries and governmental departments. Meanwhile the *Bangkok Post* and other newspapers employ the structure that is more flexible than the other two newspapers. The section editor of the *First News* mentioned that the *First News* does not entirely separate news departments into news desks. But the newspaper assigns a reporter into specific news beats that respond to overall newsgathering in a day. However, each reporter has a specific responsibility to report to sections' news editors; for example, the "quality of life news section" involves reporting health news, environmental news, technological news, and educational news (Watanakan 2015).

I argue that the structures of news organisations reinforce newswork which is beneficial to hegemonic culture (Gitlin 2003). Specialization in newswork increases source dependency in framing and newsgathering processes that result in the predominance of elite groups in news. In terms of news related to climate change, textual analysis findings illustrate the justification of environmental practices in the arguments of primary-definers. Moreover, climate change discourse is domesticated to support bourgeois ideology in Thai society (see 5.7.4). This section demonstrates correlation of these issues and the operation of the news net that finally influences the perception of journalists to the accountability of journalism in environmental issues.

The discussion in this subsection is central to the implication of the news net (Tuchman 1980) to the predominance of authoritative news sources. Two issues are discussed in this subsection. Firstly, the discussion about the impact of the news net as a structural control of news institutions to the predominance of authoritative news sources is demonstrated. Secondly, the debate of the influences of the news net to "frame-blindness" (Maras 2013, pp.66-70), in particular news genres, is advanced in this subsection.

6.3.1 The news net as a structural control in news organisations.

The findings from interviews with journalists reveal that the organisational structure in news departments, which aims to increase organisational specialisation and topical specialisation supports the sustenance of the dominance ideology in Thai society. In terms of environmental issues, the operation of the news net intensifies the authoritative framing in environmental news. While the structure of news beats and news bureaux optimises proximity between authoritative news sources and journalists, the structure of news desks increases the usual source dependency of the reporters.

The environmental journalist informant (Paosri 2016) addresses the fact that reporters at news bureaux seem to embrace all aspects of official news sources in their news reports. The journalists used slang, “the bureau addicted”⁷⁵, during interviews to refer to the attachment of reporters in the Ministry of Natural Resources and Environment. The journalist claims that the bureau reporters rely on press releases and press conferences disseminated by the officials to write news about the environment. This leads to a lack of first-hand experience of newsgathering in fieldwork. Therefore, they have less comprehension of environmental problems in rural areas. This problem leads to marginalisation in the voices of ordinary people which is reflected in the textual analysis of this study.

Furthermore, the structure of news organisations rigidly defines the responsibility of journalists. Therefore, newswriters are regulated with specific tasks and specific ways of thinking that complement the productivity of the news organisation, especially topical specialisation structures. Importantly, I argue that topical specialisation structures cannot support the realities of modern environmental problems in Thailand that are the dilemma of the developmental policies. Although collaborative works between news sections occasionally take place in newsrooms, this collaboration requires formal approval from the news editors. Two problems addressed by the journalists who are involved in environmental news production reveal some scenarios where the structural control has become a barrier to producing environmental news.

The first example shows that topical specialisation controls the way that journalists frame news stories, causing the division between causes and effects relevant to

⁷⁵ author's translation of “ติดกระทรวง” [Tid Kra Suang]

environmental problems in Thailand. Arguably, the practices in newsgathering within topical specialisation structures cannot evoke the relationship between the problems of capitalist development and environmental destruction to the readers. The section editor (Watanakan 2015) compares the rigid organisational structure to “silo structure⁷⁶”. She accepts that some journalists at her organisation who are interested in environmental news choose to transfer their positions to “soft news and lifestyle” sections. This is because journalistic norms, namely news framing, inverted pyramid writing style, and source selection, within their previous news sections, are incompatible for presenting the essence of environmental news stories. The section editor mentions that:

It is impossible to present the voice of people in rural areas, such as fishermen and farmers, within the form of hard news. In contrast, writing their stories into feature formats allows more space to illustrate environmental issues and their impacts on society. [...] I can give more background, more depth, more complex explanations of phenomena. One example is the story about people at Pakmoon (see details in section 3.3.2.2). Writing the features allows extended clarification of the situation, such as the stories of folkway in the area, the changing of the ecological system, and the effects which occurred when communities lost their agricultural professions. Also, the story of the fisherman who was stuck in the capital city and became a street cleaner because he lost all his money during the long-run protest in front of the house of government. Well, it must accept that these stories are unable to be expressed in the sense of traditional news. News has its own grammar and life-style issues are not news in the traditional sense.” (Salila Watanakun, Section Editor, *The First News*, interview, 17 November 2015)

This perception reflects that the topical specialization of news organisations strengthens singular perspectives to environmental occurrences. Arguably, the journalists need to select a single frame that conforms to their news genre for assimilating environmental realities, while environmental issues in developing countries are multifaceted dilemmas of economic development and natural resource usage, for example, the dilemma of reducing fossil dependency and affordable energy prices. Accordingly, the authoritative news sources who have an advantage in their proximity to journalists at news bureaux can dominate environmental discourse in news.

The second scenario is mentioned by the journalist who is involved in the COP21 news production. This situation shows that journalists are not entirely free to access news sources who are usual news sources used by other news sections without organisational consent. Paosri (2016) mentions that, unless the editor assigns the reporter to cooperate with

⁷⁶ The journalist compares the structure of news department with the shape of silo that is built to seal itself closed and separate from surrounded environment.

other news sections, “crossing the line” is unacceptable in a newsroom. She gives an example from her experience from the COP21 meeting as follows:

Actually, my job title is a reporter at the news bureau at the Ministry of Health. Every reporter in my newspaper has been assigned to a specific news bureau. However, I am interested in environmental issues so I always seek a way to write environmental news. Luckily, no one really writes these kinds of stories in the newspaper currently, so, I am not in trouble. (Thanida Paosri, Reporter, *The First News*, interview, 18 January 2016)

On the one hand, the perceptions of the reporter and the section editor evidence the organisational structure that regulates newswork to conform to dominance ideology in society, for example, posting journalists to the news bureaux of the state departments. This structural control (the so called, news net, (Tuchman 1980)) reflects the way that news institutions join in “governmentality” (Manning 2001) of the state. The practices of the news net enact mutual benefits between news institutions and the authoritative news sources. Arguably, the news net increases speed of practicality in newsgathering, as well as assuring the possibility of obtaining the facts from sources. Similarly, the official news sources possess more accessibility to newswriters than non-authoritative sources. The findings from textual analysis of this thesis’s research also exhibit bureaucratic discourse and the promotion of particular environmental ideologies, for example, the sufficiency economy philosophy in news related to climate change (see section 5.7).

On the other hand, newswriters can occasionally negotiate the boundaries of this structural control of news institutions such as the collaborative works between news desks. This means that this structural control does not entirely determine the way that the reporters comprehend the realities of occurrences. Moreover, some reporters always seek the opportunity to present environmental aspects in the news within their news genres. The opinions from journalist informants shows that as people, they realise that environmental aspects can be related to many occurrences (Pedchai 2015; Sangthong 2015; Kwanpong 2015).

However, this structural control does not only limit practicality in newsgathering processes. Importantly, it also influences the ideal concept of “news” that journalists have learnt from their experience while working for particular news sections. This issue is vital to the disappearance of environmental framing in climate change related news, which has been discussed previously in the textual analysis part. Accordingly, the next subsection discusses further the implication of structural control, the so called the news net, that pertains to

specific framing exploited in a distinct news genre to portray environmental occurrences in society.

6.3.2 The influences of the news net to “frame-blindness”

This subsection addresses the influence of structural control in news institutions that reduces environmental framing in news coverage. In order to understand how the structure of the news net benefits the dominant environmental ideologies in Thailand, two correlated issues need to be discussed first, namely 1) distinct perceptions of the profession of the journalists from different news beats that resulted from structural control; 2) the tendency of “frame-blindness” (Maras 2013, pp.66-70) in journalistic practices in a news beat. These factors are demonstrated as follows.

The interview shows that journalists from different news beats have distinct ideas about their profession. This thesis’s research affirms that tacit knowledge is paramount to what journalists think of their professional standards. This is because journalists learn about journalistic values differently from their experience in a news beat. The findings reveal that journalists highly value “journalistic norms” as essential knowledge for newswork. This is reflected in the different perceptions of the profession of journalists who are involved in environmental news production and journalists in economic news beats.

The reporter from the industrial news beat mentioned that learning “norms of the news beat” is vital for entering the profession.

It is more about experience [than knowledge]. Each news desk has its own patterns and standards for news stories, for example, a set of questions that is supposed to be asked during interviews is different among economic news, industrial news, political news, and environmental news. So, junior reporters need to learn from existing patterns of work to settle down at the news desk. Reading news articles published in their own newspapers helps a lot to know what is good for a news story.” (Noppon Pedchai, Industrial reporter, *Thailand Post*, 5 August 2015)

The journalistic values that the length of experience in the news beat are important for being a professional journalist, as well as the awareness of each news beat holding a different value from the others. Moreover, journalists perceive practicality in the profession as “on the job training” (Pedchai, 2015). Importantly, it is noticeable that conforming to journalistic norms in the news genre relates to “professional standards” that define what news should be like. The journalist from the economic news section indicated that challenging conventional standards in the news genre is not easy. The journalist states:

We need to accept that each section has its own style of writing and focal point. Economic news is always different from environmental news. [...] Sometimes, I try to pursue other aspects of writing economic news and, also, other sets of questions when I go to press conferences. I don't want to repeat the same set of questions to the CEO, for example, regarding interest rates, break event points, returning rates, and so on. But this also depends on my editor. Nevertheless, the environmental issue seems different from economic news. Asking the CEO of a big corporation about environmental effects of their projects is not the best appeal that economic reporters consider. (Indra Chana, Financial reporter, *The Bangkokian*, interview 4 January 2016)

The financial reporter expresses that the economic news genre is strictly binding with a particular set of newsworthiness that pertains to capital growth. He claims that it is unable to navigate from this rule of the profession, and economic news sources expect the journalist to perform according to these professional rules. On the contrary, editors and reporters from environmental news beats think that unveiling social injustice, stemming from the effects of environmental management policies, is at the heart of environmental journalism. The veteran environmental section editor expresses his opinion to the profession as follows:

In general, newspapers prioritise political news because of its prominence. In fact, political news just consists of interviews with powerful people whose speeches aim to have an impact on society. In contrast, reporting environmental news is working with people in rural communities who do not know how to make their story attractive to society. Their problems are not the talk of the town because they are not in powerful positions. [...] As environmental journalists, we are fighting for people in rural communities. We try hard to find any element in news that increases the opportunity to be published. Even if it is not successful, at least we make other news editors hear and think about the problems. (Mekka Dettrakun, News editor and veteran environmental journalist, 7 January 2015)

Similar to his view, other environmental reporters (Paosri 2016; Bhutapan 2015; Kamkowitz 2014) agree that reporting environmental news concerns revealing conflicts between powerful institutions and lay people in rural areas.

I argue that these marked differences of the perceptions of environmental journalists and economic journalists evidence the impact of organisational structure, which tends to serve practicality in newsgathering. In doing so, this organisational structure limits journalists to merely gathering tacit knowledge from their own news beats. Therefore, their justification of “what is news” and “what is not news” depends on specific cultures in their news beats rather than other factors taking place there in the occurrences. Finally, preserving conventional styles of a news genre is perceived as “common sense” in the profession.

This issue is thus directed to different ways of framing the occurrences related to the environment of the newswriters. In regard to textual analysis of the three newspapers in this thesis's research, selective framing in the coverage of the COP21 meeting shows that the occurrence is framed from a number of perspectives of powerful actors (see section 5.5). Central to these differences is the manifestation and disappearance of particular issues, especially the issue of PDP2015. While environmental news beats emphasise the controversies of PDP 2015, this issue has disappeared from the reports of economic news beats. I thus argue that the disappearance stems from journalistic norms in economic news beats that reject environmental perspectives from their newswork. In order to produce economic news, the economic reporters cultivate news framing from their "common sense" about news genres. The reporter from the industrial news section maintains that

We prefer to focus on economic aspects and financial aspects because we need to produce the content that serves our readers, who are mostly business people and investors. These aspects are more important to us. It is true that there is an environmental aspect in the event about investment but it is out of our mission. I think that it is best picked up by environmental journalists, for example, the issue of power plant building. There are many protests going on and it seems relevant to industrial news. In fact, these protests have less news value to industrial news because they are obsolete. The protests repeatedly occur in similar ways and with similar issues. (Noppon Pedchai, Industrial reporter, *Thailand Post*, interview, 5 August 2015)

Drawing the boundaries of "economic news" within the aspects that contribute to the growth of the capital market, the journalist can exclude environmental issues caused by industrialisation from the news reports. Arguably, the structure of news organisations that influences distinctive ways of framing allows newswriters to advance "professional standards" as the alibi in portraying the occurrences into their selected frames because each news genre has its own ideal of professional standards. The interview shows that the journalists claim that maintaining "professional standards" is important for news production practicality. Arguably, newswriters prioritise their ideal concept of "news genres" over evaluating the essence of occurrences to society. Accordingly, newsgathering processes are preordained by specific framing that the newswriters learn from particular news genres. This framing regulates the way that journalists select their news sources and order the facts into particular writing structures.

I argue that selective framing of journalists which Maras (2013) calls "frame-blindness" happens in both economic news beats and environmental news beats. Previous research (Wannasiri 2005) shows that environmental news beats in Thailand tend to focus on the conflict aspects between actors in news. For example, Wannapreuk and Sooksai

(1998) criticize the fact that environmental news in major newspapers failed to address the scientific aspects and the anticipation of the locals during the crisis of the Mae Moh incident (see detail in section 3.3.2.1). Due to the coverage tending to feature arguments of institutional news actors and their opponents, news reports about Mae Moh have become daily updates of conflicts related to government policy. Similarly, textual analysis of news related to climate change in this study reflects the conflict framing in climate change issues found in selected newspapers. In relation to this framing, the examples of perspectives of journalists to climate change clarify frame-blindness in climate change issues that are reported in environmental news genres. While the environmental journalist informants maintain the significance of risks in climate change worldwide, they claim that climate change is not an urgent problem for Thai society. They mention that Thailand is a developing country that is facing critical levels of environmental problems such as the drought crisis during 2015-2017 and contamination from industrial activities. These problems are obvious. Moreover, they are life and death matters to people in the agricultural sector. Journalists from environmental news beats dedicate their resources to report these urgent environmental problems rather than climate change (Raksasi 2015; Paosri 2016; Bhutapan 2015).

Moreover, some environment journalists (Sangtong 2015; Raksasi 2015) advance that climate change news receives less attention from readers compared to other environmental news. Therefore, neither news about climate change effects nor particular climate change movements is of interest to the editorial room of daily newspapers. It is “irrelevant to the daily life” of Thai readers (Raksasi 2015). The journalist maintains that people will not be interested in climate change unless the issue is about incentive.

to give an example, recycling is obvious. People, for example, the working classes, are starting to use their recycling bins. It is not because they want to heal the world. It is that they literally earn money from recycling because garbage is not worthless anymore. There are a few people who are concerned about global warming, although some parties in society have realised the effects of climate change, for example, in some schools. I think that people are not really concerned about the environment, unless there is a particular incentive. (Nunthida Sangthong, *The Bangkokian* Newspaper, interview 16 October 2015)

Regarding this frame-blindness in newswork, two arguments are raised to support the notion that the operation of the news net has become a support system of dominant environmental ideologies in Thai society. Firstly, on the basis of closing environmental news desks of daily newspapers in 1997, it obviously decreased environmental aspects in news coverage of daily newspapers. This notion is mentioned by former environmental journalists in this study (Raksasi 2015; Dettrakun 2015; Watanakan 2015; Paosri 2016). They agree that

recently the newsrooms have lacked expertise in identifying environmental framing in daily occurrences. Although some daily newspapers have combined their personnel in environmental news beats to the other news desks, the section editor has excessive works on hand to focus on environmental issues. Also, the environmental occurrences are corresponded by general reporters because the environmental news beat has been discarded from the news net. Therefore, environmental coverage in Thailand tends to rely on the operation of news bureaux in the governmental departments. Consequently, the officials become primary-definers in news related to environment, for example, the news coverage of the global warming lawsuit in this study (see discussion in section 5.6.1).

Importantly, I insist that closing environmental news desks in daily newspapers fundamentally stimulates the official discourses in environmental discourses in news in the long run. Also, the journalistic values in accessing and reflecting the voices of marginalised groups in society are discouraging along with the downturn of environmental news beats in the country. Since tacit knowledge in a news beat is pivotal to professional development, removing the environmental news beat from the news net entirely undermines the experience that reporters would gain from the field work, as well as assimilating journalistic values inherited in the culture of the news beats. Recently, environmental framing has been declining from news coverage in Thailand. This circumstance is noticeable in the characteristics of news related to environment in this study in that bureaucratic and administrative discourses are conflated in the news (see discussion in 5.7.1).

This situation leads to the second argument about frame-blindness in news related to climate change found in this study. Arguably, the operation of the news net in the present day fails to gather the realities of climate change issues because the topical specialisation structure merely enhances specific sets of journalistic skills for particular topics. On the contrary, climate change issues require integrated aspects to approach their complexity. While the environmental news beats cannot continue to develop their news framing for new environmental risks whose consequences are beyond the boundary of nation states, frame-blindness also takes place in the other news beats as reflected in the opinions of the journalists in economic news beats. Capital growth framing is included in the news and the aspect related to environment is excluded because it is “best picked up by environmental journalists” (Noppon Pedchai, Industrial reporter, *Thailand Post*, interview, 5 August 2015).

The findings from the interviews also reveal that the reporters are inexperienced in corresponding the occurrences related to climate change. Importantly, some journalistic

skills such as framing and accessing various news sources are insufficient to produce news related to climate change. The reporter who is involved in reporting news related to climate change expresses her experience that she gained a greater understanding about climate change newsgathering after attending training sessions organised by the international non-governmental organisations. However, further skills are still needed to learn from the real situation of newsgathering. She expresses the opinion as follows:

Communicating about climate change is of more immediacy than I had ever thought. Importantly, it is not only about ecological systems, but about the consequences of climate change including other challenging futures. It is about international politics, lobbying, the negotiation of power between the first world and the third world, laws, and the aspects of finance and energy development. Climate change is really a big deal. (Thanida Paosri, Reporter, *The First News*, interview 18 January 2016)

In conclusion, this section discusses the structure of news departments in daily newspapers, the so called, news net, which influences the ideology of news held by journalists in a news. I argue that the representations of climate change in distinct news genres are preordained by journalistic framing. Since the journalists learn from their tacit knowledge of newsgathering processes, they tend to have “frame-blindness” to the occurrences. In consequence, this selective framing of climate change issues reflects ideologies that endorse bourgeois cultures such as capitalism and nationalism in environmental ideologies (see section 5.7.4). From this perspective, the next section is the discussion relating to the relationship between journalists and news sources that discourages opportunities to initiate further aspects to the occurrence than the speciality of a news desk.

6.4 Institutional source dependency and journalistic bias toward usual sources

The discussion in this section aims to show the consequences of the news net that increases frame-blindness in newsgathering processes. Two issues are discussed in this section. Firstly, institutional source dependency is illustrated with the examples from the perceptions of the journalist informants. Secondly, the discussion relating to the journalistic bias of the usual news sources is demonstrated. These two issues are significant to the influence of primary-definers in news related to climate change. This discussion is exhibited as follows:

6.4.1 Institutional source dependency in news related to climate change

This subsection discusses the dependency of the newsroom to institutional news sources in newsgathering processes in environmental issues that are enacted from the weakness of the newsrooms and the lack of environmental journalistic skills of the reporters. I argue that the institutions, namely the government, high profile non-governmental organizations, and international news agencies, are core agents that the journalists use in shaping their understanding about the issues related to climate change. This circumstance is also the consequence of the downturn of environmental journalism in Thailand.

The findings from interviews reveal that newsgathering processes of environmental news beats and the other news beats are different, especially in the way that their journalists think about news source selection. This difference reflects the fact that news production is a “vocabulary of precedents” (Allan 2011, p.89). It is noticeable that specific norms and tacit knowledge which journalists learn from their experience in a news beat, a news section, and a news organisation determine the standard of newsgathering and the way that the issues related to environment are represented in their news.

While journalists from environmental news beats are discreet in using authoritative news sources, journalists from economic news beats value the credibility of authoritative news sources. The veteran environmental editor mentions news source selection as follows:

This is a delicate matter. It is like searching in the dark. Yes, it is very difficult. We cannot know immediately because reporting environmental news means dealing with a lot of people who are possibly taking advantage of natural resources. Therefore, we need to keep in mind, when we are talking to our sources, that they might have conflicts of interest in environmental issues. Their aspects much depend on their interests, don't they? If we do not know their backgrounds, we cannot evaluate their intentions. (Mekka Dettrakun, News editor and veteran environmental journalist, 7 January 2015)

The viewpoint of this veteran environmental journalist reflects that environmental journalists look at environmental issues as political matters. I argue that this understanding of environmental journalists helps to reduce the dependency on authoritative news sources. Since they realise that environmental news is a political matter, they are more discreet in using powerful news sources in environmental news. This situation is mentioned in Schudson (2003) who examines newswork in political issues and found that the journalists tend to have more analytical judgement. This perception is also reflected by the news editor (Raksasi 2015) who stated that environmental journalism is the youngest news beat in Thailand, while other news beats such as political, industrial, and criminal have been

established previously in the country. Despite the other news beats that deal with the positive sides of economic progress, environmental journalism is involved with investigation of the negative effects caused by over consumption in natural resources. The outcome inevitably brings unpleasant relationships with powerful institutions such as big corporations, political parties, and governments. Nonetheless, environmental journalism is probably the only voice that publicises disadvantages of marginalised people in accessing natural resources. Accordingly, environmental journalists have precautions toward powerful news sources.

Contrastingly, the economic news reporters mentioned in the interview tend to prioritise new sources who have authority, namely, top-rank government officials and business executives, the experts in the fields. These authoritative news sources help in reducing uncertainty in newsgathering processes and eliminating irrelevant facts. He mentions the criteria in selecting news sources as follows:

The first targets are usually top executives of the organisations because they have authority to talk with the media, for example, the CEOs of private organizations and Deputy Director-Generals of governmental organisations. If we cannot access them, then lower rank executives are found. [...] Basically, the information from governmental organisations is accurate and we can re-check further from the internet. (Noppon Pedchai, Industrial reporter, *Thailand Post* newspaper, interview 5 August 2015)

Moreover, it seems that the journalists in the economic news beats tend to agree with the information from authoritative news sources. Their perceptions are expressed in the topic related to facts about building coal-fired power plants. The journalists trust the official statements that building more coal-fired power plants does not affect the national emission targets. The journalists (Kwanpong 2015; Pedchai 2015) mention that it is reasonable to invest more coal-fired power plants in the country as follows:

Either EGAT [Electricity Generating Authority of Thailand] or other independent power producers have their scientists and experts who carefully control the emission rates. It has been proven by scientific reports on the environmental impacts. Also, the facts released from press releases and conferences should be accurately based on their research. The other thing is that reporters have witnessed how safe the operation of coal power plants is; for example, they took us to visit coal power plants in Germany. This is why we don't have to ask questions about environmental issues. (Aroon Kwanpong, Business news editor, *The Trade Post*, interview, 12 December 2015)

During the interview, the journalists in economic news beats neither mention the issues about community rights in natural resource management nor renewable energy direction in Thailand. Their perceptions reflect the “common sense” in newsgathering

processes of economic news beats that prioritise capital market growth and exclude social and environmental aspects of the news genre.

Here, it needs to be emphasised that environmental journalism is declining in Thailand as it was mentioned previously that news related to climate change is the responsibility of general journalists. In relation to the discussion from textual analysis that the issues of climate change are defined from the aspects of elite news sources to support their environmental arguments (see 5.7). The findings from the interviews also affirm that the newswriters tend to frame climate change issues along with the perception of authoritative news sources. Because of the journalists' lack of experience in environmental newsgathering, they tend to prioritise the official statements as truth. These are opposed to skilled environmental journalists that employ political framing to environmental issues so they select news sources carefully. The junior reporter who involved in reporting news related to climate change seems lack of critical mind in assessing scientists and experts who tend to be news sources for climate change news stories. She mentions that access to the authority who "knows" about the occurrence is the first step of newsgathering.

Generally, when I write about climate change, I always go directly to the Director of the climate change department at MNRE as he has enough authority to speak. Actually, if there are further experts to comment on this topic, we can produce better stories. [...] If it is needed to interview scientists, I won't spend too much time interviewing a number of them. This is because their profiles as scientists are credible enough for telling the story, no matter whether their information is credible. I normally go for two scientists in a story, whose opinions contradict each other. This will increase the roundness of the story. On the contrary, if it requires some comments from communities, I have to interview more than five people on the same issue. People in the community can only tell us about the situation because they don't know anything about scientific or environmental policies. They always tell things differently because they might witness things differently. So, more numbers are needed in order to get exactly what was going on during the incidents, although I can only use one or two people for writing the story." (Thanida Paosri, Reporter *The First News*, interview, 18 January 2016)

These practices evidence the notion of Schudson (2003) who indicates that the media favour conventional ideas, scientific, and middle class values. Although this idea derives from evaluating the value of American media, it seems that the culture of Thai journalism is a heritage of their values to some extent. This also points out to the fact that selecting news sources for climate change stories relies on a "map of relevance knower" (Allan 2011, p.81). This means that the journalist already has a specific target of news sources whose credibility is sufficient to the acceptance of society before the beginning of newsgathering processes. This practice thus increases the power of authoritative news sources in advancing their arguments related to climate change issues due to the reporter having insufficient knowledge

about climate change, as well as essential journalistic skills in corresponding with modern environmental problems. The opinion from other journalist informants in this study is in a similar direction in that they prioritise authoritative sources over other types of news sources (Pedchai 2015; Dettrakun 2015; Sangtong 2015; Janthong 2014). Although the reporters value the variety of news sources in the article, authority is the first criterion in news source selection. This perception reflects that “hierarchy of credibility” (Allan 2011, p.81) is “common sense” in newsgathering processes of the journalists. During the decline of environmental journalism in Thailand, environmental news, especially climate change news, has been produced by general reporters whose tacit knowledge in newsgathering processes stems from working in news bureaux and other news beats. From this perspective, journalists are taking for granted the truths about climate change and environmental effects from the credibility of authoritative news sources. In consequence, this practicality is reflected in the representation of climate change issues found in textual analyses of this study, which illustrates the disappearance of scientific and ecological framing. Meanwhile, climate change issues in news stories are framed with the aspect of national politics and international politics.

Furthermore, this perception of the reporter contradicts her claim that the reporters in news bureaux relating to natural resource management tend to be “bureau addicted” (Paosri 2016) when they report environmental news. Nevertheless, the answer about newsgathering processes of climate change issues which, as this reporter explains, points out that the practices of climate change newsgathering also empower authoritative news sources to frame news stories about climate change issues in their direction. This contradiction of perceptions evidences that journalistic norms are paramount to the practices of newsgathering. While insufficient skills and knowledge about climate change of the general reporter is one of the factors that encourages the power of particular primary-definers in climate change news stories, the journalistic norms of news production such as using the “web of relevance knower”, the “web of facticity”, and “around the clock culture” (Anderson 2014) enhance the dependency to institutional news sources. Journalists activate these norms as “common sense” and they are not consciously careful about the dominant ideologies embedded with the claims of institutional sources in news production.

Importantly, climate change issues are open to engagement with any news genre because they contain multifaceted problems. Meanwhile, environmental journalism in Thailand is weak. The newsrooms thus formulate climate change news stories from the framing of primary-definers in news related to climate change. Here, the issue about

conflicts in natural resource management, that is the residue from the culture of environmental news beats, is exploited to balance the news stories. In this sense, the new stories about climate change are presented with conflict newsworthiness, which is framed from dual aspects of oppositional elite groups in Thailand, such as the issue of the PDP2015 the target to reduce greenhouse gas emissions, and the issue of the global warming lawsuit (see finding from textual analysis in section 5.5).

In addition to the authoritative news sources in Thai society, the opinions from the reporters also exhibit that international non-governmental organisations are the primary-definers in news related to climate change. Concerning the production of the COP21 news, the newsrooms of daily newspapers in Thailand aimed to use newsfeeds from the international news agencies because “they [the editors] think that the quality of news produced by them [the international news agency] should be better than our productions because they have more expertise” (Paosri 2016). This perception of the newsroom obviously reflects the dependency on institutional news sources, which are international news agencies, to produce news related to climate change of the Thai newspapers.

On the one hand, the weakness from inexperience of Thai journalists includes the disadvantages to claim expertise in the issues about international meetings such as the English language, international laws, and others. It seems reasonable, therefore, to use newsfeeds from international news agencies to produce the COP21 news. On the other hand, this perception leads to the newsroom tending to exclude the essence of the COP21 meeting from the realities of local issues related to greenhouse gas reduction. Therefore, the news coverage of the COP21 meeting is framed by external perspectives advanced by global institutions and powerful countries. Moreover, this perception also increases the dependency on international agency news sources in reporting the effects of climate change, which results in the detachment from local perspectives as discussed in the textual analysis part of this study (see section 5.6). Accordingly, this circumstance reflects the failure of the news net in Thai newspapers to produce the news stories related to climate change that acknowledge extended voices from marginal groups. On the contrary, it seems that the news net that discards the environmental news beats from its operation enhances the power of institutional news sources, in local and international domains, in the news related to climate change.

The communicator from Greenpeace Thailand reveals their media strategy that similarly indicates the influence of international news agencies in shaping the representation

of climate change in Thai newspapers. He addresses the difficulty in climate change adaptation communication that results from journalists discarding the opportunity to gain information from a variety of news sources, especially lay people. Nevertheless, when similar sets of information are from international news agencies, the stories receive some coverage from newspapers in Thailand. Therefore, Greenpeace Thailand usually asks Greenpeace Hong Kong to distribute the press releases to international news agencies to receive coverage in Thailand. It is mentioned that

Greenpeace in Hong Kong has a strong relationship with international news agencies such as Reuters, AP, and others. If our story is in these international news agencies, it will surely be published in many news media in Thailand. (Saichon Budsarin, Coordinator, Greenpeace Thailand, 11 December 2015)

These practices of Greenpeace indicate that although the officials have more opportunities to access the newsworker, a resourceful international organisation like Greenpeace can also employ media strategies to access news coverage in climate change agendas. However, this does not guarantee the power of such news agendas in the long term. For example, the textual analysis evidences that photo releases about climate change adaptation of Greenpeace were published on the front page of the newspaper, but there are no follow-up news stories concerning the agenda advocated by Greenpeace Thailand in the newspapers (see section 5.6.2). Nonetheless, it is noticeable here that the operation of news organisations in Thailand seems to contribute to conserving the status-quo of elite groups in Thai society, especially the organisational structure, which posts journalists in news bureaux and increases dependency on authoritative news sources whose comments contribute to the conventions of a news genre. Contrastingly, the voice of marginalised groups is suppressed in news related to environment and climate change. This is because the journalists tend to rely on their “common sense” in prioritising the arguments of authoritative news sources. This thesis’s research confirms the idea of Gitlin (2003, p.279) who mentions that

Through the everyday workings of journalism, large scale social conflict is imported into news institutions and reproduced there: reproduced, however, in terms derived from the dominant ideology. Discrepant statements about realities are acknowledged – but muffled, softened, blurred, fragmented, and domesticated at the same time. [original italic]

In the light of the literature review (Daradirek 2000; Chongkittavorn 2013a), business and economic news in Thailand, which are the major news beats in Thai newspapers, tend to support capitalism. The perception of journalists in this thesis’s research also reflects similar circumstances where environmental aspects are discarded from the news coverage of Thai newspapers. It seems that the structural control of news institutions enhances the operation that increases the legitimacy of the governmental policies in turning

natural resources into the input of economic growth. Moreover, the environmental problems of modernisation, especially climate change, are advanced to support the ideologies of capitalism.

6.4.2 Journalistic bias toward usual sources in news related to climate change

This subsection discusses the influence of the news net on journalistic bias toward the usual sources in news production. Since the development of journalistic skills is highly involved in the process of learning from experience in a news beat, the separation in the newsroom thus enhances positive bias that journalists have toward their usual news sources. While the journalists in a news beat learn to understand worldviews from their usual sources during newsgathering processes, they also cultivate the dominant ideologies, which particular news sources hold on to. Moreover, the structure of the news net tends to enhance polarisation in news rooms. Arguably, the practices of newsgathering that impacts on the engagement of the journalists to the news sources seems to discourage the opportunity for journalists to share their perspectives toward environmental realities among their colleagues from other news beats. In regard to this situation, the information from interviews with journalists in environmental and economic news beats shows that reporters have a tendency to engage in over trusting relationships with their sources.

The veteran environmental editor addresses his experience in working with his colleagues in environmental news beats in that, as an editor, he needs to remind the environmental reporters about their sympathy with ordinary people who are the victims of environmental problems. He mentions that;

reporting environmental news involves working with people in rural communities who do not know how to make their story attractive to society. Their problems are not the talk of the town because they are not in powerful positions. [...] As environmental journalists, we are fighting for people in rural communities. We try hard to find any elements in news that increase the opportunity to be published. Even if it is not successful, at least we make other news editors hear and think about the problems [...] Sometimes, our reporters are too much 'into' pathetic situations that communities are facing (he laughs). [...] However, this can hinder the capability to report news. Too much empathy causes bias to exclude the possibility that communities are themselves actors in environmental problems. In fact, local people play a part in causing local environmental problems, with innocent motives or not. We have seen that they were exploited by powerful people in many cases. By this, we cannot just assume that they are innocent. I had to remind our reporters of this bias. (Mekka Dettrakun, News editor and veteran environment journalist, 7 January 2015)

According to this veteran environmental journalist, the culture of the news beat is contradicted by what Schudson (2003, p.60) states, that “the media are biased toward conventional over dissident opinions, toward science over religion, and toward upper status and upper-income groups over the poor.” The sympathy for marginalised people in rural areas is noticeable from the veteran environmental journalist’s viewpoint. However, I argue that the over trusting relationship directly influences the framing of journalists selected in constructing their news stories. Moreover, this over trusting relationship, combined with the media relations strategy of institutional news sources, increases the power of primary-definers in both starting news agendas and shaping the direction of news stories. While there are over trusting relationships between journalists in environmental news beats and marginalized people, the journalists in news bureaux and economic journalists tend to have a positive bias toward institutional news sources. Concerning the dilemma of the PDP2015 and the target of greenhouse gas reduction, the business news editor expresses his trust in the operation of the Electricity Generating Authority of Thailand in controlling emissions (see section 6.4.1). Besides his opinion, the literature review also shows that institutional news sources utilised extensive strategies in building long term trust between their target journalists and the organisations (see section 2.7). Direct to the issue of the PDP2015, the Ministry of Energy organised the media trip to Japan for industrial journalists. The documents of the Ministry of Energy mention that the trip aimed to educate journalists about the clean coal and safety schemes of coal power plants. However, this seven-day tour programme from 13-18 February 2017 was widely leaked to social media. The tour merely spent a half-day visiting the coal power plant at Matsuura Thermal Power Plant, while the rest of it was dedicated to tourist attractions and restaurants⁷⁷

Similarly, the interview with the non-governmental organisational news sources reveals that trustworthiness between news sources and journalists is vital to the success of environmental campaigning. The informant from the wildlife conservation foundation claims his strong connection with the senior journalists in news bureaux at the Ministry of Natural Resource and Environment as follows:

I have strong connections with senior environmental journalists. Even though they have been rotated to news bureaux in the Ministry of Natural Resources and Environment, our connection is still worthwhile. This is because these senior reporters can access powerful people in the Ministry. It is always the case that the government try to do kite-flying. So, the connection with bureau reporters helps me get insiders before the news spreads out. In terms of the advocacy mission, it is

⁷⁷ detail of programme:

<https://www.facebook.com/thematterco/photos/pcb.1843544955860898/1843544752527585/?type=3&theater>

beneficial to us for preparation of essential environmental data to persuade public opinion in advance. Sometimes, however, senior journalists help me with leaking our prepared information to reach people in the Ministry. This is advantageous to operation of our strategic plans. In terms of the environmental conservation mission, this is a vital strategy to deal with corruption and conflict of interest issues that we are all aware of in our country. It is impossible to either obtain evidence or just reveal it publicly because they are powerful people. What we can do is bluff. Well, now you have seen that our foundation is working around political policy... (Sanchai Thongruk, Director, Wildlife Conservation Foundation, interview, 12 December 2015)

Regarding this claim, the strategies of news sources has impact on either the emergence of environmental news agendas or the decreasing salience of environmental news agendas. Due to trustworthiness in usual news sources, the journalists assist in the process of environmental publicity that contributes to national public policies. In this light, participation of news sources is not merely related to framing of environmental news but it concerns the emergence of news agendas relating to environmental issues in society.

Moreover, I argue that, within the structure of the news net, newswork has become the field of contest between dominant ideologies advanced by institutional news sources. This confirms that the primary-definers in environmental news comprise different groups of elite. The predominance of the officials is evidenced by textual analysis, although the interview insists that elite groups, who are the expert and the high-profile environmentalists, can also influence the emergence of environmental agendas in newspapers. The dominance of these primary-definers accrues while the voices of marginalised groups are discouraged from news coverage in daily newspapers in Thailand. The issue of accessibility stems from the news net thus increasing the power of powerful institutions in framing the environmental conflicts in society. The circumstance that journalists learn from the worldview of their usual news sources is mentioned by Gitlin (2003):

journalists are trained to be desensitized to the voices and life-world of working class and minority people; they are also trained in locating and treating “the news” so that it is “credible” and, by their own lights, “important”. (ibid., p.269)

This circumstance is also reflected in the findings in the textual analysis part (section 5.5) that demonstrate the predominance of information from press releases in news reports. Moreover, expert sources, especially the officials in government organisations, have become solo news sources in environmental news reports without alternative viewpoints from other sources in the articles. Accordingly, this over trusting relationship between journalists and usual news sources clarifies the power of authoritative news sources in news related to climate change.

Furthermore, the scientist who works for the climatology department of the government mentioned that he is acquainted with a group of journalists who are responsible for environmental news, while economic journalists do not approach him as a news source of the issues related to climate change at all. The scientist mentioned that:

environmental reporters always come to me when there is a current environmental situation that they think is related to climate change. The major problem is their scientific knowledge. In general, the journalists have wrong understandings of what climate change actually is. [...] I have to lecture basic understanding about climate change before giving other comments they require. What they usually ask for is relevant scientific information to specific environmental events in society. [...] Economics journalists have never come to me. Actually, I think that they should have come. Climate change is not about the environment but it is about the problem of development and economics. (Arnon Sanitwong, Director, The Geo-Informatics and Space Technology Development Agency (Public Organisation), interview, 11 November 2015)

This situation is also pointed out by the communicators in NGO organisations (Klaprayut 2014; Budsarin 2015). The informants maintained that climate change politics is absent from newspapers in Thailand because journalists have only partial information from their usual news sources. For example, Thai Climate Justice⁷⁸ organised a series of free training events about emissions of fuel types used in power plants. While the invitation is normally accepted from junior environmental journalists who work for general news sections, industrial journalists usually refuse participation in the training.

This circumstance thus indicates the positive bias of journalists to attach with their usual news sources for reporting news related to climate change; for example, the dilemma of building coal-fired power plants and the release of greenhouse gases has never been raised in the economic and business news genre, although the news agenda of the PDP2015 is reported in business newspapers. Similarly, the issue related to energy pricing has never been analysed or mentioned in environmental news genres. The distinct selective framing of environmental issues between news genres is the result of polarisation in newsrooms. Finally, its consequences have become an intrinsic barrier to the achievement of the profession to engage in public literacy in climate change because the news coverage cannot provide climate change stories that answer the complex realities of the issues. On the

⁷⁸ Thai Climate Justice is the working group which has joined hands with environmental and cultural NGOs in Thailand. The will of collaboration is to create public participation in climate change issues and advocate climate justice. The organisation aims to raise public awareness and understanding about climate change. Moreover, the organisation aims to monitor government policy that connects to international collaboration in climate change mitigation and adaptation based on climate justice approaches.

contrary, the coverage about climate change seems to increase social myths about climate change such as victimisation in environmental disasters, blaming business corporations for climate change problems, and discouraging empowerment of ordinary people to engage in public policy. This representation does not contribute to sustainable development approaches, which are required for developing countries such as Thailand.

Regarding this finding, I argue that there is a necessity to reframe both the structure of news departments and journalistic practices in order to address climate change problems in newspapers. This is because conventional news organisation structures are too rigid. The topical structure cannot contribute to the effectiveness of newsgathering processes that involve modern environmental issues. I argue that neither radical green ideologies in environment news beats nor capitalist ideologies in economic news beats can construct environmental news that enables sustainable development literacy. However, this initiation is not easy to take place along with competitive news business in Thai society. This issue is discussed further in section 6.4.

By this, I do not mean that climate change issues are supposed to be the responsibility of environmental journalism. On the contrary, climate change topics require integrated collaboration between journalists on news desks to achieve comprehensive stories. Moreover, the lack of environmental perspectives in news related to climate change is unable to reflect the reality of climate change to society. Therefore, environmental journalism is essential to framing news related to climate change that is meaningful to Thai society, especially climate change news frames that contribute to sustainable development literacy.

Overall, this section demonstrates the power of institutional sources in framing and shaping news related to climate change in daily newspapers. The finding shows that the structure of the news department, the news net, increases the opportunity for journalists to attach to their usual news sources. Moreover, the newsgathering process is a vital factor that enhances the dominant ideology, which the journalists learn during their practice in the news beats, in news coverage about climate change. Finally, the issue of over trust between usual news sources and the journalists, combined with the media strategies of institutional news sources, suppresses the voice of marginalised people in society.

Nevertheless, I argue that journalists are the agents who are involved in two layers of discursive practices. On the one hand, journalists need to deal with the worldviews of their usual sources, especially the powerful institutions in Thailand. Therefore, they have

cultivated news framing that conforms to the dominant ideologies in the country such as capitalism and sufficiency-economy. However, this neither means that the journalists are passive agents in the news production process nor that the institutions have complete control of the practicalities in newswork.

On the other hand, the journalists have their interpretations about the realities of the environment. Regarding the interview, journalist informants (Kwanpong 2015; Bhutapan 2015; Raksasi 2015; Watanakan 2015) expressed their concerns about environmental problems, including climate change, as the critical problem. I thus argue that the way that journalists frame environmental problems in news can be altered when the journalist accesses external realities about environment outside the structure of the news net. This issue is mentioned by Gitlin (2003):

the reporters may change their images of their audiences or even of the world and, too, their “instincts” about what is “newsworthy,” “interesting” or “important.” [...] Their vulnerability depends on many things: personal life-experience, specific organisational arrangements, and the shifting of boundaries of the ideologically permissible in the wider society as well as in the newsroom. But the vulnerability begins with the fact that reporters have sparse contact with their actual readers and viewers; their everyday sense of audience cannot be strong enough to insulate them against the specific, focused pressures. (ibid. p.269)

Accordingly, the next section provides a discussion that pertains to this alteration of news framing by using the concrete example of how journalists alter their news framing and their ideal of their profession. This issue is exhibited by addressing the case of the *Green Report* in *Krungthepturakit*.

6.5 Challenging the structure of the news net and initiation to collaborative newswork in environmental issues

This section aims to demonstrate the situation that enhances journalists to challenge journalistic conventions in a news beat. Also, the exploration of collaborative work between news beats in a newspaper is discussed in this section. The findings are derived from interviews with the editorial team of the *Green Report of Krungthepturakit*.

The *Green Report* is a monthly supplement in *Krungthepturakit*. The objective of the publication is to provide alternative news related to environment (see the *Green Report* news policy in section 3.3.3). The initiation in launching the *Green Report* had started when the government announced the plan to expand the industrial estate area around Mab Ta Phud

estate. While the Mab Ta Phud estate is the largest industrial estate in the country and is significant in generating economic growth in the Eastern region, environmental problems around Mab Ta Phud have affected communities since 1987 and are still going on now (see detail of Mab Ta Phud case in section 3.3).

Accordingly, *Krungthepturakit* was interested in producing investigative reports in order to clarify controversial issues about the environmental effects of the industrial estate and its responsibility. The task was assigned to the industrial news desk, which is a major news section of the newspaper. Chalao Kanchana (Kanchana 2015), the Executive Editor of *Krungthepturakit*, argues that the newspaper posted industrial reporters to embed themselves in Mab Ta Phud industrial estate and surrounding communities. The investigation was going on for three months but the team had never reached consensus about what aspect should be presented regarding the Mab Ta Phud issue for their investigative report. Since the team had found that the issue is complicated, misrepresentation would bring significant consequences. They agreed that daily newspapers cannot report environmental conflicts in Mab Ta Phud because environmental conflict is inert and takes time to be manifested in society. Moreover, neither industrial aspects nor environmental aspects can be used to frame the problem correctly. Finally, the executive editor decided to propose to the editorial board of the newspaper to launch a new supplement, whose newsgathering process is not assigned to a particular news desk. Also, conventional news narrative is exempt from this new supplement. It was claimed that;

our team agreed that the Mab Ta Phud problem is an environmental issue. As industrial journalists, we have never touched on deep environmental issues before. And when we did, we came to realise that it is a delicate matter. 20 years of conflicts in Mab Ta Phud will never end, if the issue is portrayed by focusing on conflicts of communities and industrial companies. On the other hand, we know that the issue has been underrepresented by industrial news beats for a long time. This does not mean that we did not report the Mab Ta Phud agenda, but the way that we usually rely on official sources in Bangkok cannot reach the reality of the Mab Ta Phud problem. (Chalao Kanchana, Editor in Chief, *Krungthepturakit*, interview, 6 November 2015)

This perception seems to indicate that business journalists have their own analytical ideas about environmental problems that strike within the dilemma of industrial development policies in the country. However, they also comply with the traditions of business news genres so they do not believe that the Mab Ta Phud issue fits with their standards of news reports. Regarding this idea, the journalists addressed the limitations of the conventional organisational structure of the news department that impacted on representation of social reality, specifically the reality of environmental problems in modernisation that are too

complex to be partially presented within specific news genres. Arguably, the establishing of the *Green Report* reflects attempts of journalists to challenge conventional organisational structures in their discipline.

In this sense, I argue that this initiative evidences the situation when the journalists are navigated from their usual worldview that they have learnt from their experience in a news beat. They thus start to re-evaluate the professional standards and accountability to represent the social world. In the case of these journalists, the attempt resulted in the first publication of the *Green Report* in 2012 that provides articles about the Mab Ta Phud issue. Since their editorial team derived from volunteer journalists from *Krungthepturakit*, the staff joined in the editorial meeting which is a mix among diverse news beats in a newspaper. Also, the number of staff joining in each monthly issue is unstable depending on the daily work load of each volunteer. Nevertheless, the First Editor of the *Green Report* argues that the diversity is advantageous to the team because it can increase opportunities to find interesting environmental aspects in daily news agendas. It was mentioned that;

We are not being too “environmentalist”. We don’t do this in the *Green Report*. We aim to open space for the ideas of everyone because there are environmental aspects in every news agenda. But it depends on the perspective that journalists use to look at it. Some reporters tell me that since they joined the *Green Report*, they have seen environmental issues in daily occurrences that they corresponded with as reporters more than before. (Warapa Janthong, First Editor, *Green Report*, *Krungthepturakit*, interview, 20 September 2015)

By using “too “environmentalist””, the journalist seems to suggest that the environmental news in environmental news genres is deviant from the “objectivity standard”. This perspective of business journalists signifies the polarisation of the attitudes toward the standard of “objectivity” in the newsroom. Despite this tendency, the starting of the *Green Report* illustrates the attempt to look at environmental issues in a collaborative way. Also, it shows that journalists are active agents in news production processes. The section editor from the marketing news desk maintained that joining the *Green Report* allows journalists to present reality in a way that does not depend on news structure. The section editor mentioned that “It does not mean that I don’t really think about environmental aspects when writing news in daily newspapers. Indeed, I think that there is no space to present what I think” (Jittra Moonwisut, Marketing Editor, *Krungthepturakit*, interview, 6 November 2015)

However, despite the claims that the *Green Report* employs alternative ways in framing environment news, I have found that the article in the *Green Report* is narrated with

the journalistic style of news scoops with more space to provide contexts of such environmental problems raised in the publication. Moreover, the intention to reduce dependency in official news sources in news production (Janthong 2014) seems activated by an increasing number of expert sources. The analysis of news related to climate change in the *Green Report* also evidences the dominance of powerful news sources that are academic and expert (see discussion in section 5.3).

On 6 November 2015, I had a chance to observe an editorial meeting of *The Green Report*. The observation shows that the meeting is primarily involved in brain storming and information sharing in regard to news source selection. Moreover, tentative news agendas of the next issue are prepared beforehand by the Executive Editor. Therefore, the staff do not have a chance to discuss news agendas of the next issue. The meeting took place informally in the small TV studio room. According to the observation, it seems that a few reporters in the newspaper were interested in producing *the Green Report*. Only 5 staff joined in the meeting, which was led by the Executive Editor of *Krungthepturakit* and the First Editor of the *Green Report* as coordinators of the meeting. The other members are from the marketing news desk, international news desk, and graphic designers. The purpose of the meeting is following up assignments of the staff that concern direction of the articles and the design of the front page. The observation shows that the members were active in discussion during the 2 hours of the meeting.

After the editorial meeting, I asked the editorial team “who read the *Green Report*?”. They assumed from random feedback to the newspaper that the readers are youngsters and students. This claim is not supported by any surveys or statistics. This shows that the editorial team was not certain of the readership of the *Green Report*. In relation to this, while the observations and the interviews with the Executive Editor of the *Green Report* reflect circumstance that newswriters negotiate with the professional standards and disciplines, the news editor who works for the other news organisation criticised the motive behind the establishment of environmental news sections in this business newspaper. The news editor saw *Green Report* sections as the place where business newspapers increase news content about green marketing and CSR projects of the corporates. Therefore, the business newspaper retains a “good image” with “a bit of green content”, and reserves good relationships with the sponsors (Raksasi 2015). This aspect thus shows an anti-business perspective. One can argue that green sections in business newspapers can contribute to the growth of “corporate greenwashing” culture in business organisations. In my view, “a bit of green content” in business newspapers is significant for activating sustainable development

discourses in society. However, this depends greatly on the dedication of newswriters to correspond with the issue in-depth, which is not merely churnalism. Even though it is unclear about the readership and the factors that led to success of launching the *Green Report* in business newspapers, I argue that the initiation of the *Green Report* enacts a chance that environmental news can contribute to solving environmental problems in modernisation within the lens of sustainable development.

Despite the claim that the *Green Report* increases advertising income for the newspaper (Kanchana 2015), after 5 years of trial and error, *the Green Report* was closed in 2016. I had a chance of meeting the First Editor of the *Green Report* (Janthong 2014) in 2017. During our conversation regarding the status of journalism in Thailand, the journalist expressed disappointment that the *Green Report* was closed down:

Actually, I don't know why the newspaper stopped supporting the *Green Report* but I can say that it is really disappointing that many big corporations in Thailand advance their intentions to support sustainable development and good governance. Despite these claims, they don't really support the newspapers that produce content about sustainability like the *Green Report*. (Warapa Janthong, First Editor, *Green Report*, *Krungthepturakit*, interview, 20 September 2015)

This shows that the issue has turned to problems concerning news business. It seems that the newspaper business is attached strongly to capitalist ideology. This relationship is also advanced by Manning (2001). The example of the emergence of industrial news beats in the UK exhibits relationships between the discourse of “the economy” and “the industry” which were spread as a thing or an object in government policy. Manning looks at this idea as a form of governmentality, which can be seen in the division of labour in journalistic organisations at the same time. Newspapers developed the specialist departments along with the categories of knowledge emerging in society. In terms of the context of Thailand, the study of Pensri (2000) analyses the discourse of development advanced by the state between 1961 and 1996, when the Thai state had followed capitalist ideology in its development. Three main principles in development concern mastering the nature to satisfy endless needs, implementation of technological knowledge and know-how to defeat nature and reach utopia, in which the only the strongest survive (ibid.). Also, the study of Chonkonrattanaporn (2013) finds that the publicity media of the government frame environmental issues with the aspect of financial and economic growth. In this light, I thus argue that journalistic disciplines are supporting the systems of newspapers, whose news products are at stake in the capitalist institutions. This circumstance is evidenced in the closedown of the environmental news beat, as well as the cases of the *Green Report* which was closed down because of a lack of sponsorship.

Besides, the case of the *Green Report* shows that readership has become a vital factor in the framing process of newswriters. Moreover, this perception reflects that the reporter sees “the imagined reader” (Gitlin 2003) in a newspaper varied along news sections. While the main section of *Krungthepturakit* is tailored for the investor reader, the editorial team advanced that students and youngsters are the primary readers of the *Green Report*. Accordingly, the next section is the discussion related to the influence of marketing pressure and the readership of newspapers on the representation of news related to climate change in daily newspapers.

6.6 Self-censorship and marketing pressure

The interview with journalists shows that marketing pressure is vital to the representation of news related to environment. Newswriters realised the fact that readership is vital to the survival of newspapers. Therefore, they tend to lend their works to the aim of attracting readers, especially in popular newspapers. The interview shows that the section editor mentions serving target groups of the newspaper as follows:

the animal's image is essential to our readership. As we are a popular newspaper, we realise that we have diverse segments of consumers. For the agricultural news page, the main readers are children who generally read newspapers to find some stories that are useful for school tasks. So, it is necessary to put catchy images on the news pages to serve them. Climate change related pictures are applicable because they are real and impactful. And we can select the right image from international newsfeed services of which we have membership. (Nattawit Kamjinda, News editor, *Thai City*, interview, 7 January 2016)

The news editor claims that publishing climate change news images serves the readership of the newspaper. However, it seems that the reason for managing news holes is also influence to the pervasive of polar bear images in the popular newspaper. The journalists (Sangthong 2015; Paosri 2016) provide similar perspectives to exploitation of climate change news. A handful of stories related to climate change are used for newsrooms to manage news holes. The section editor usually fills news holes with materials from press releases and photo releases as well as newsfeeds from international news agencies.

Regarding this perspective, the findings from textual analysis and the interviews affirm the power of climate change discourse in Thai society. Arguably, climate change mitigation is considered to be one of public consensus in the country. Realising this consensus, journalists choose to inform society about climate change mitigation to play safe

when newsrooms are running to deadlines. Therefore, ready to use material about climate change suits the needs of newsrooms to finish news production within the deadline without criticism from society. By this, neither public understanding of climate change nor the significance of the occurrence itself causes climate change issue dispersal in newspapers. On the contrary, it is the stake of news organisations to reduce production costs.

Moreover, the manifestation of news related to climate change in broadcast news media is similarly influenced by marketing pressures. During the collection of data for this thesis's research, I had a chance to meet the news editor of a television programme. This news programme is the only television channel in Thailand that spent a budget in travelling to Paris to report the COP21. The news editor, whose reputation concerns the environmental journalism career path, mentioned in regard to news policy that television ratings are vital to the decision.

Environmental news is our cornerstone. We have been to the COP17, which failed to bridge international collaboration in climate change mitigation. So, this year we need to continue climate change issues and the COP21 is significant [...] Of course, the expense of covering the COP21 is high. However, as an editor, I have authority to invest resources for this news agenda. Certainly, I am concerned about efficiency of budgeting because I own this news company. In fact, this investment is worthwhile. Think about the audience we gained when the COP21 scoop was on air. There was no other competitor. We were the only Thai television programme on the site of COP21. Considering this, I decided to take my team to Paris. The return came in the ratings we received at that time” (Pichai Kanpirom, Editor in chief, news programme TV, interview, 25 January 2016)

This points out the significant influence of marketing pressure on the manifestation of environmental news in Thai society. In addition, the marketing pressure also reduces the salience of environmental issues in news. While the history of the development of the journalism profession in Thailand (see section 3.3) evidences that the state powers have demanded censorship in news organisations in the country, environmental news has been specifically affected by self-censorship. It can be seen that marketing pressure from sponsors is vital to make environmental issues salient in Thai society. This is similar to previous research that points to negative effects from powerful corporations and institutions (See Anderson 1997; Palmer 2000; Manning 2001).

During the interviews, strong denial about the influence of corporations on their news writing is always advanced by journalists. However, the environmental editor (Raksasi 2015) hinted toward this during the interview, when I asked about the power of sponsors in

newsrooms. The following conversation demonstrates the example that the newsroom was influenced by relationships with their sponsors.

The editor: Just an example, do you remember the oil leak in Prao bay⁷⁹? Asking me how much the pressure of sponsors places upon environmental news? Do you really believe that PTT can clean up all the mess in the sea within a month as it was said in the news? Then you would see that some news programmes took their teams out to stay there at Prao bay, or even did live broadcasts from the site, showing a very clean ocean just behind those newscasters. In fact, there were tons of hazards left in the sea which would only be known about by locals. No one mentioned this in the news. I think it was only Public Broadcast Television⁸⁰ that investigated this matter at that time, while other news outlets kept quiet. Media is business, as we have known.

Interviewer: Do you mean that they kept quiet because they did not want to lose sponsorship from PTT?

The editor: It is not so easy that one shot of placing advertisement can change everything. Yes, sponsors are vital but I say that It was the mutual benefit that has been developed for a long time between sources and journalists. For this case, some of my friends who are news editors said to me that it felt very uncomfortable to pick up phone calls from PTT. Given that the CEO is calling by himself, politely asking for the lighter version of news reports, he said it was hard to deny.

Interviewer: So, is this going to mention self-censorship?

The news editor did not answer the last question. However, the conversation gives an understanding to the way that corporate news sources work to eradicate their “environmental faux-pas” from the news coverage. It shows that a long-term relationship is a vital factor in maintaining the power of corporate news sources over environmental agendas. This seems to confirm the mutual benefit between the news organisations and the large corporations. Sometimes, the pressure that leads to self-censorship in Thai newspapers is not a result of the sponsorship scheme. The culture of maintaining a moderate relationship and leaving together with harmony can obstruct the critical analysis of journalists in environmental issues. This

⁷⁹The accident occurred in 2013. The tanker of PTT accidentally leaked around 70,000 litres of oil into Prao bay. The experts evaluated that the environmental loss and other consequences were calculated equally to 65 million USD. Prao bay, located in the eastern region of Thailand, which is famous for its beaches and diving destinations of worldwide tourists. The accident was not only harmful for tourism but the local fishermen were largely affected by the contamination. It has been noticed that PTT Public Company Limited is a Thai state-owned SET-listed oil and gas company.

⁸⁰Public Broadcast Television was established in Thailand in 2008. The Thai Public Broadcast Service (ThaiPBS) is a private organisation that earns its income from state funding. Therefore, sponsorship has no influence on their news policies. However, after the coup d'etat in 2014, the organisation was besieged by the government. Its chief editors were forced to resign. The government sent military men to sit in management positions.

also ensures the win-win situation between the corporations and the newspapers. While employing self-censorship, the newsworker can assess the readership to maintain that they are working in the interest of the audience. It is mentioned by Richardson (2007, p.41) that “the production of text [and the encoding of textual meaning specifically] always has at least one eye on the imagined target consumer and the kinds of texts that they prefer to read”. In this sense, it seems that the newspapers can avoid conflicts with large corporations whose advertising budgets go to the newspapers by focusing on the claim about their accountability to their readers. Accordingly, economic and business news beats ensure that they can exclude the environmental aspect from the news by proclaiming that their readers are the investors who are not interested in environmental stories. This is similar to the popular newspaper that uses pictures of polar bears to fill their news holes and addressing such images is expected from their younger readers.

6.7 Conclusion

This discussion aims to answer the research question: what factors drive the influence of primary-definers in environmental news production in Thailand? The findings from interviews with journalists and news sources reveal the situations related to environmental and climate change news production. The perception of journalists enacts problematisation in the journalistic profession in modern society. Concerning Thai society, it seems that journalism suppresses environmental truths and the voice of marginal groups, while the dominance of economics and industrial ideologies is sustained by the journalistic norms and structures of news organisations. This situation reflects the difficulty of environmental newswork in competing to present environmental worldviews in the news organisations.

In regard to this problematisation, I argue that structural control of the news institutions, the so called news net, utilised in daily newspapers, is paramount in enhancing the power of authoritative news sources to frame environmental occurrences in news stories. The news net determines both the perception about the profession of journalism and the selective framing that journalists utilised in producing news related to environment.

Firstly, this thesis’s research points out the structure of the news department in daily newspapers that optimizes proximity between authoritative news sources and journalists by the functions of news beats and news bureaux. Moreover, the separation of news

departments into news desks leads to usual source dependency of the reporters in a news beat. Paosri (2016) mentions the circumstance, “bureau addicted”, that the bureau reporters attach to the information from the Ministry of Natural Resources and Environment to produce news related to environment. Furthermore, the news net rigidly controls the boundary responsibilities of the reporter to specific topics across their topical specialisations. Therefore, this topical specialization of news organisations strengthens singular perspectives to environmental occurrences. The opportunity to explore extended perspectives from various news sources is limited to their accountability to the news desk. The opinion from journalists reflects that the structure of news departments is the barrier to presenting environmental news stories that engage a number of perspectives, which will visualize the dilemma of developmental policies and the usage of natural resources in the country. I argue that this circumstance evidences that news institutions join in “governmentality” (Manning 2001) of the state. The news net is of mutual benefit to news institutions and authoritative news sources. This structural control benefits the speed of newsgathering activities. Meanwhile the officials have more accessibility to environmental news discourses.

Secondly, the impact of the news net to the power of the primary-definers is embedded in the way that journalists frame environmental occurrences to support dominant ideologies in society. I argue that the separation in the newsroom intensifies the differences between the idea toward the profession of the journalists in each news beat. Since tacit experience in a news beat is vital to the understanding of their profession, newswriters in each news beat have distinct ideas about the readers and their accountability to the readers. The opinions of journalists from environmental news beats show that they perceive that revealing social injustice in natural resource management and speaking for the marginal groups are their tasks. On the contrary, the journalists from economic news beats focus on topics related to capital growth to serve their investor readers. Due to the journalists from each news beat claiming their professional standards differently, they use the idea of such professional standards as alibis to include and exclude particular content from the news stories. Accordingly, the separation of newsrooms enhances “frame-blindness” (Maras 2013) in newsgathering processes. Arguably, the journalists tend to employ particular framing that is advanced from their usual news sources and conserve the journalistic norms of their news genre without the awareness of the dominant ideologies embedded in such framing.

Concerning the downturn of environmental journalism in Thailand, news related to climate change in Thai newspapers is the responsibility of general reporters. In relation to this circumstance, the opinions of journalists involved in the production of news related to

climate change affirm the frame-blindness in newsgathering processes of both economic news reporters and general news reporters. Meanwhile economic news reporters tend to exclude environmental framing from particular news agendas, for example, the news agenda of investment in coal power plants. The news agendas about environmental problems are framed with conflicts in natural resource management by the general reporters, for example, the case of the global warming lawsuit. Accordingly, the ecological framing and perspectives from local people are excluded in news related to climate change published in Thai newspapers.

I argue that removing environmental news desks from the news net of daily newspapers fundamentally undermines the capability of newsrooms in reporting climate change agendas in news. Since the environmental news desk has been terminated, the newsroom lacks experience and expertise in framing climate change issues in the news. Moreover, the newswriters also lack tacit knowledge about environmental newsgathering, which concerns the inclusion of extended voices from the fieldwork. This circumstance thus leads to authoritative source dependency which is usually found in the culture of economic news beats.

Furthermore, the failure of the news net in producing climate change news stories induces institutional source dependency of the newsroom. The information from interviews with journalists and news sources reveals that government agencies, international news agencies, and non-governmental organisations play important roles in framing and shaping news related to climate change. I argue that newswork is increasingly a “vocabulary of precedent” in producing news related to climate change. In the present day, the journalists perceive that using authoritative news sources is a “common sense” in newsgathering of climate change issues. Inexperienced journalists, especially bureau reporters, tend to agree with the experts and the authoritative framing in news reports related to climate change. Moreover, they tend to engage in over trusting institutional news sources. This issue is also induced by the media strategies of institutional news sources that aim to create long term relationships with journalists.

Accordingly, I argue that the operation of news organisations in Thailand seems to contribute to the conservation of the status-quo of the elite groups in Thai society. Climate change issues have become the powerful news agenda that plurality of powerful institutions exploits to advance their environmental ideologies. This circumstance is reflected in climate change news content that is divorced from the perspective of marginalised people, as well as

the “common sense” in prioritising powerful institution as primary-definers in newsgathering processes.

In addition, I suggest the reframing of the structure of news departments and the newsgathering process. This is essential to increase collaborative work between news desks, helping to reflect climate change problems from extended aspects and, also, reducing the polarisation in newsrooms that results in institutional source dependency. The collaboration between news desks would allow news related to environment to illustrate the dilemma of economic growth and the capability to utilise natural resources sustainably. This notion is explored from investigation into the case of the establishment of the *Green Report*. The findings show that journalists are not entirely passive agents in the journalistic discipline. On the contrary, they have a tendency to actively re-evaluate their professional accountability in representing environmental issues to society. However, this creativity requires further experience outside the usual practicality in their news beats. The interview shows that the journalists comprehend environmental realities differently when they have access to fieldwork, which leads to negotiation with journalistic norms in the news genre, especially dependency on authoritative news sources. Nonetheless, this negotiation can be activated under the consent of their news executives. Moreover, readership and marketing pressure are vital to these practicalities in the long run.

Finally, this thesis’s research investigates the power of sponsorship in dominating and shaping news agendas related to climate change. The findings show that marketing pressure is vital to the emergence of news agendas. The opinions of journalists reflect the fact that the survival of newspapers and news programmes influences the way that environmental issues are framed in the news reports. In terms of environmental news, self-censorship is activated to reserve long term relationships between journalists and the powerful news sources. I also argue that journalists tend to proclaim the interest of their “imagined readers” to avoid criticism of their framing; for example, economic and business news beats ensure that they can exclude environmental aspects from the news by proclaiming that their readers are the investors who are not interested in environmental stories. According to their claims, the issue related to news readers and their interest in environmental issues are of interest for future research.

Chapter 7

Conclusion

7.1 Introduction

The largest river in Southeast Asia is named the Mekong. The stream of the Mekong, which runs from the Tibetan Plateau in China through Cambodia and to the Thai Gulf Sea, is the life support system of locals along the river line. At first glance, the wideness and wildness of the Mekong River made a stunning impression on me, who was a public relations officer in a power generating company in Thailand. That was in 2005, when the Nam Ngum reservoir in the hydropower plant project was nearly finished and our team arranged a media trip of 30 financial – business journalists to visit the hydropower plant and the reservoir. The reservoir was constructed on the major branch of the Mekong River located in the Lao People's Democratic Republic; however, electricity generated from this hydropower plant is sold back to Thailand.

After a long day of press conferences, the enjoyable evening of a dinner cruise trip along the Mekong River seemed effective in breaking the ice between mid-career journalists and the executives with backgrounds in engineering. As a junior public relations officer, I was assigned to accompany the executive and to monitor any “off-record” questions which might arise. In actuality, facts and figures about the reservoir had been distributed since that morning. There should not have been anything left to ask, so I was thinking of some surprise questions. Something that was not written in the press release, for example, included: What possible ecological effects to the river might there be? Is the company responsible for the changing of the stream? What about the ethnic people who had to leave the area of the reservoir? These questions can never be answered from information in the press kit. This made me as worried and excited as much as a very junior public relations officer could be in that kind of situation.

Three hours on the cruise trip passed and the wine glasses were empty. A set of questions related to the tendency of partnerships in other energy projects were also raised by journalists. Things that I was worried about did not happen. It was indeed a good evening for

the executives, the journalists, and the public relations team. There were no unpleasant questions for the business but there were unanswered questions left inside my head. That evening left questions in my mind to pursue for a long time. Which realities about nature and environment can we communicate without compromising our roles as members of the communication profession, as members of society, and, ultimately, as humans who are members of the ecological system?

This thesis's research grants some answers to my questions. Also, there are further questions to be investigated in the future. Since changes in nature and environment have never stopped, research that clarifies the ways the people perceive and mediate their relationship with environmental world needed to be continued. Nonetheless, this thesis's research enhances understanding of relationships between news media, social institutions, and climate change issues in the context of Thailand. This chapter thus demonstrates key arguments derived from the textual analysis of news related to climate change from selected newspapers and qualitative interviews with journalists and news sources. Moreover, the implication of research and future research are illustrated as follows.

7.2 Summary of key arguments and discussion

This thesis's research establishes the understanding of how journalism plays its part in the transformation of climate change agendas into the national politics of environment in the context of Thailand. The findings connect the gap where the knowledge about the influences of news sources on the representation of climate change is lacking. Despite a number of quantitative content analysis studies in environmental news in Thailand, the empirical findings that explain journalistic practices in relation to powerful news sources are overlooked in media studies in Thailand. Keawthep (2013, pp.235-238) indicates the drop in volume of environmental journalism research in Thailand during the downturn of environmental journalism in the country. Accordingly, this thesis's research is based on the approach of the theory of risk society and the critical approach to news production substantially contributing to comprehend the manifestation of climate change agendas in Thai newspapers and environmental claims made by officials. This knowledge also further clarifies the transformation of climate change discourse to specific cultures and society in the reflexive modernisation.

The textual analysis of 36 purposively selected news articles related to climate change derives from employing relevant keywords with full-text search engines resulting in 124

news articles during a seven-month timeframe of “critical discourse moments”, demonstrating that climate change agendas are reported across news genres in three daily newspapers. This evidences the transformability of climate change discourse and leads the analysis to deep investigation which shows that the newswriters are greatly committed to their journalistic conventions, namely newsworthiness and news narratives. These journalistic conventions essentially increase the dominance of the official sources and their claims in the news stories of climate change. Meanwhile, the voice of “sub-politics movements” are marginalized and “voices of side effects” are constructed as a victim in news related to climate change. Climate change discourse is “introvert-domesticated” to support the nationalist arguments related to national energy security and empower the state to manage natural resources, while environmentalists advance climate change agendas to de-legitimise coal-fired power plant investment. The analysis evidences that journalists are not passive communicators in environmental agendas but their capability is limited to news policies and journalistic standards held in their news genres.

The semi-structured interviews with 14 journalists and 12 news sources were conducted in light of findings from textual analysis. The findings derive from the interpretation of the opinions of the informants and their perceptions to the professions. The findings evidence major factors that increase the influence of the officials as the primary-definers in climate change news stories. These factors exist in the circumstance that environmental journalism has undergone marketing pressure in news business. While environmental news beats were closed down in daily newspapers in Thailand, climate change agendas are the responsibility of general reporters and bureau reporters. This circumstance sustains the influences of the official news sources in news related to climate change. Firstly, the structural control of the news department, the so-called news net, enhances the accessibility to newswriters of the official news sources, who proximately work with reporters in news bureaux. Secondly, newsgathering skills in the environmental news beat that serve towards the political nature of environmental issues in the country have been discontinued. Similarly, the newsrooms have “environmental frame-blindness” in reporting climate change news agendas because journalists are determined with “common sense” to frame the occurrences related to climate change with other framings, especially economic and bureaucratic framing derived from officials. Thirdly, the structure of the news net enhances the polarisation in the newsrooms and limits creativity of the newswriters to report climate change issues with the dependency on usual sources, who are the officials and the authoritative experts. These factors strengthen the position of the officials and resourceful organisations as the primary-definers in news related to climate change.

In light of these empirical findings, I argue that the coverage about climate change in three newspapers fails to address local risks in climate change. Also, news coverage cannot contribute to public literacy in climate change. Introvert-domestication of climate change discourse in news made by the primary-definers empowers the environmental regulations, such as reclamation of forest areas in the global warming lawsuit. Climate change agendas are framed as global issues in news reports. The environmental effects of climate change are ‘out there’ not here in the country, and solving climate change is about the power of the state to deal with international politics. This representation results in dominant capital growth ideology and marginalised environmentalist ideology in Thai society. During the intensive environmental struggles in Thailand, environmental news is increasingly becoming a “vocabulary of precedent” that benefits nationalist and capitalist ideologies.

Following figure 7.1 visualises the summary of arguments and discussion as explained above.

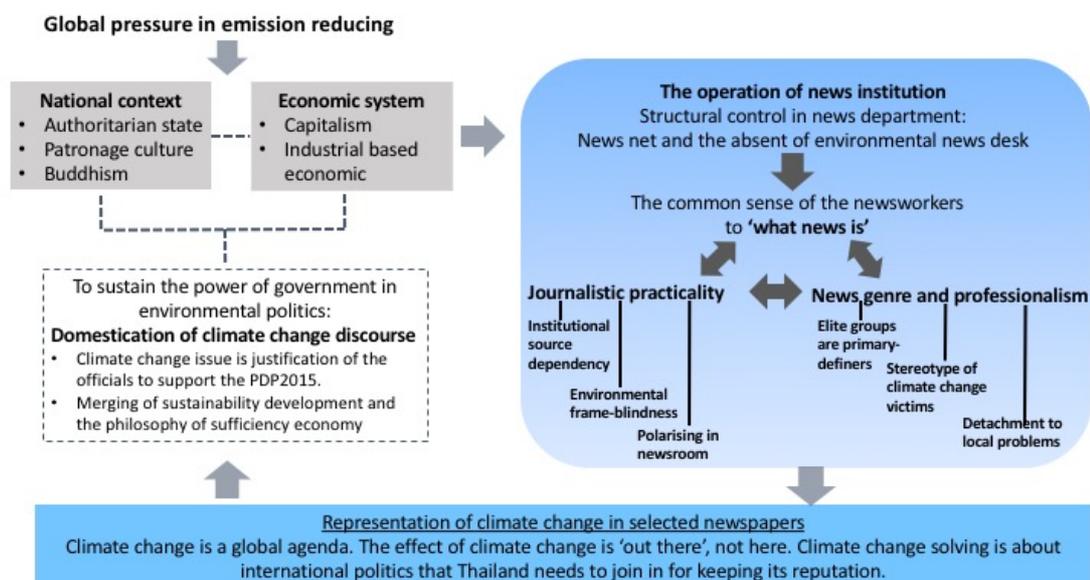


Figure 7.1 The diagram demonstrates key findings, arguments and their relationship in this thesis’s research.

The following four subsections further conclude research arguments and discussions along with the four research questions.

7.2.1 Prominent newsworthiness influence to the representation of climate change as global agendas in Thai newspapers and hard news narratives unable to reach comprehensiveness of climate change news

Research question 1, *to what extent do journalistic values influence the representation of climate change issues in the selected Thai newspapers?* focuses on the investigation of journalistic norms that influence framing processes and utilise specific narratives to climate change issues in hard news. Textual analysis reveals that the representation of climate change is determined by complex factors related to journalistic norms and news policies of the newspapers. The demonstrations of news article analyses in section 5.3-5.5 identify the impacts of newsworthiness and news narratives to climate change portrayal. The analysis of headlines shows that journalistic norms in emphasising newsworthiness, namely prominence and impact, direct the representation of climate change in global agendas, even though climate change issues are reported within local news sections of the newspapers. Moreover, the analysis of news narratives indicates the limitations of inverted pyramid news structures that discard the complexity of climate change issues in hard news. In consequence, the representation of climate change in the three newspapers is involved with the prominence of political actors including local and international ones. Meanwhile the implications of climate change to Thailand are absent from the news coverage in daily newspapers. This representation thus distances climate change issues from environmental contexts of the country.

This thesis's research continues to examine differences of conventional hard news narratives and alternative news narratives found in news stories about climate change. This investigation indicates that alternative narratives, which are more flexible than conventional styles of inverted pyramid, assist newswriters in presenting climate change issues and environment problems meaningfully in the context of Thailand. By doing this, environmental journalists advance the claims about truths in environmental problems in the country, for example, conspiracies between businessmen and corrupted officials to encroach forests and local wisdom regarding environment that does not conform to mainstream knowledge about environment in modern society. These claims are unable to be reported in hard news narratives since they require identifiable news sources in order to conform to professional standards of objectivity. On the contrary, the representation of climate change issues in business newspapers that utilise alternative narratives reflect the web of facticity in newsgathering processes. Similar to hard news in daily newspapers, climate change issues are defined by official news sources who act as experts. However, these experts tend to provide climate change policies rather than the science of climate change.

Based on the analysis of news related to climate change, major arguments of this thesis's research concern the interrelation between constraints in climate change news production processes and the necessity to conserve professional standards of newswriters. This circumstance reflects the portrayal of climate change issues in three newspapers. Arguably, climate change tends to be portrayed as episodic frames in daily newspapers because the newspapers have limited resources in newsgathering processes. Using the web of facticity in newsgathering reduces time consumption in verifying complex truths about climate change, while professional standards can be maintained by arranging facts into the news structure of 5 W and H. This practice is reflected in the content of the COP21 news articles in three daily newspapers that report the daily situation of the meetings. In relation to limitation of resources, newspapers rely on using newsfeeds of climate change from international news agencies, bringing churnalism of news related to climate change in daily newspapers. Moreover, climate change issues are detached from local contexts. These factors, related to journalistic norms and news policies, emphasise the aspect that climate change comprises global agendas in hard news narratives. While the meaning of climate change to local contexts of Thailand, especially the science of climate change, is absent, the power of climate change agendas is escalated by employing journalistic standards of newsworthiness and narratives.

Furthermore, the analysis of alternative news narratives evidences that the COP21 news agenda is engaged with local dilemmas of the PDP2015. I argue that environmental journalists tend to emphasise conflict newsworthiness in natural resource management by embedding their truth claims in alternative news narratives. Moreover, these narratives reduce dependency in the web of facticity of environmental news production. Regarding this attempt, newswriters exclude such news stories from conventional news genres. This practice results in typification of news related to climate change, which is observable in the analysis. Accordingly, the attempt to represent climate change agendas with local conflicts in environmental managements, I argue, evidences that newswriters are not passive actors in news production. While scholars criticise the bureaucracy in newsrooms, this thesis's research demonstrates that environmental journalists in Thailand are in fact active actors who negotiate with journalistic norms, limitations of news policies, and news routines to create news stories that are suited to modern environmental issues.

Finally, the analysis of news related to climate change over seven months draws the conclusion that journalism performs a significant role in shaping the reality of climate

change to Thai society that reflects “*mediascapes*” (Appadurai 1996). Influenced by a tendency to preserve its professional standards, hard news emphasises the prominence and impact of climate change. These journalistic practices thus increase the power of climate change discourse in the sense that solving climate change is a premise to environmental good causes in Thai society. In relation to this, climate change discourse is advanced by claim makers, whose presence is prioritised in a news genre to support their truth claims in environmental struggles in Thailand. This circumstance allows the “glocal” (Beck 2009) of climate change definition to be manifested in society. The analysis of news texts shows that reproduction of climate change issues in news is the process to “recontextualise” the meaning of climate change in Thai society where truth claims about local environmental struggles are justified by climate change discourses. Moreover, climate change knowledge that concerns western ideologies is used to suppress folk notions about environment. This cultural hegemony signifies “ecological neo-imperialism” embedded with climate change knowledge in a modernised world.

7.2.2 The power of politicians and officials in discursive practices about environment and climate change, while people in rural areas are constructed as a victim in news

Research question 2: *Who are the claim makers shaping news coverage of climate change issues in the selected newspapers?* is investigated in section 5.6. The analysis shows that hard news related to climate change signifies uneven definitional power relations between elite actors and marginalised people in environmental struggles in Thai society. In subsection 5.6.1, the primary-definers in news related to climate change, namely the official and the politician, are identified. The analysis of news structures indicates the power of primary-definers in advancing environmental claims in news related to climate change. I argue that journalism in Thailand is influenced by Asian journalism and the patronage culture in that society. Accordingly, newswriters in environmental news beats and economic news beats both validate environmental facts with comments from authorities. Since the newswriters are accountable for the deadlines in daily routines, the fastest way to prove truths in environmental issues is by using the web of facticity. This circumstance reflects routinisation in news production. Therefore, these elite news sources can access news media and justify their environmental claims that are supported by climate change discourse, for example, the justification of the compensation model utilised in the penalties of the global warming lawsuit. In this sense, the politicians and officials are the primary-definers in environmental issues presented in hard news related to climate change.

On the contrary, the analysis evidences victimisation in news related to climate change. The marginalised people who are affected by environmental problems triggered by climate change, especially people in rural areas of Thailand, are constructed as victims in news narratives. The analysis shows that environmental news tends to use rhetorical strategies that emphasise the hardship of marginalised people in news analyses and special reports. I argue that narratives intensify conflict angles in environmental news. While elite people are presented as powerful actors in environmental practices, ordinary people are depicted as powerless. By doing this, the representation of ordinary people in environmental news discourages the idea of self-resilience to climate change that also obstructs opportunities of local people in Thailand to adapt to climate change.

In terms of risk in climate change, the investigation illustrates that risk in climate change is represented by environmental dangers in remote areas. I argue that news images which depict endangered polar bears, published in popular newspapers, are the result of commodification of news. The analysis of rhetorical strategies shows that risk in climate change is intensified by religious metaphors. This representation intensifies risks in climate change but disconnects from the reality of local environmental problems. Moreover, the relationship between the middle classes and risks in climate change is also absent from news related to climate change in Thailand. The analysis reflects that news related to climate change does not inclusively engage all parties in society to be aware of their accountability in climate change anticipation. Meanwhile, environmental news emphasises environmental conflicts between the elite classes and the working classes, the first world versus the third world. Economic news focuses on climate change mitigation approaches but neglects to address the influence of high carbon lifestyles of people in urban areas. Therefore, I argue that journalism makes a smaller contribution to increasing climate change adaptation in Thai society. Additionally, the information that helps sustainable solutions to climate change does not appear in news related to climate change.

7.2.3 Domestification of climate change discourse to support environmental truth claims of the government which increase nationalist ideologies in news related to climate change

Research question 3, *what is the nature of the debate - particularly with respect to truth claims - concerning climate change in these newspapers?* focuses on the analysis of reportage speech in hard news reports related to climate change. In section 5.7, truth-claims and discourses in news related to climate change are analysed and discussed in the context of Thailand.

Firstly, news related to climate change in the three newspapers is advanced with bureaucratic and administrative discourses by the primary-definers. Moreover, scientific and environmental discourses are absent from news articles related to climate change. The analysis of the COP21 news articles shows that the dominance of bureaucratic and administrative discourses conveys the sense that climate change mitigation is urgent in hard news structures. The importance of climate change mitigation is advanced with the claim that the country needs to maintain recognition in participation with global trends. Meanwhile, the analysis of the global warming lawsuit indicates that bureaucratic and administrative discourses are utilised to claim legitimacy in environmental practices of the government, which are justified by scientific knowledge. I argue that representation of climate change mitigation, which is induced by bureaucratic and administrative discourses, portrayed that climate change mitigation is the business of governmental negotiation. This representation can discourage understanding of the dilemmas of climate change mitigation in the country. Since Thailand is a developing country whose economic growth relies on cheap energy, cutting fossil emissions and increasing proportions of renewable energy lead to higher energy prices in the country. Increasing public understanding about climate change mitigation and its dilemmas in the context of Thailand requires collaborative approaches that can present long term relationships between environment and economics. However, the analysis of news related to climate change in Thailand shows that climate change tends to be framed by either environmental aspects or economic aspects that cannot reach an understanding of sustainable development.

In section 5.7.2, the arguments about the absence of climate change adaptation agendas in news related to climate change in three newspapers are discussed. While climate change mitigation is raised as a vital issue within bureaucratic discourses, aspects related to climate change adaptation that are important to environmental contexts of Thailand are underrepresented in news. This absence of adaptation aspects can be seen both from the COP21 news agenda and the global warning lawsuit news agenda. I argue that relying on the web of facticity to produce news related to climate change is unable to increase the prominence of climate change adaptation in the newspapers. The fact that Thailand is an authoritarian state dominated by top-down management leads to weak understanding of local environmental contexts of the official news sources. Lack of climate change adaptation aspects in news also reduces the opportunities of local people to learn from sharing experiences about the way that locals adapt to changes of environment from distinct locations in the country. This representation of climate change in news thus highlights the

anthropocentric ideology that acknowledges humans as superior beings, excluded from ecological systems. Therefore, the relationship between humans and environment is portrayed as a rivalry in the battle of environmental disaster.

I also argue that journalists tend to take for granted the risks of climate change. The discussion in section 5.7.3 indicates that truth-claims about risks in climate change commenced by officials concern two types of risks. The officials claim that climate change causes economic risks and environmental risks that are neither supported by scientific data nor statistical reports. This presence of risks in climate change, without hard facts to support or criticise the claims of officials, I argue, evidences that these risks in climate change are taken for granted by newswriters. This circumstance poses the question as to the expertise of journalists in reporting news related to climate change. Moreover, this representation thus reflects the accountability of news institutions in reproducing environmental ideologies in Thai society. It seems that the newsgathering process is dominated by the officials in defining environmental issues. Hence, there is tendency for particular ideologies to be publicised in newspapers to legitimise the governmental operations in natural resources being utilised in the country. Environmental risks and economic risks in climate change are claimed as necessities to activate environmental practices of the government, for example, the global warming lawsuit and the PDP2015. A lack of hard facts to demonstrate and to evidence the definition of risk in climate change makes the meaning of climate change fluctuate along the discourse advanced by the claim makers. The government owns the “priority of definitional power” (Allan 2011, p100) to climate change issues in Thai society.

In section 5.6.4, the discussion points to the arguments of officials in news related to climate change that claim the advancement of the philosophy of sufficiency economy (SEP), which is a national ideology, into climate change agendas. The analysis shows the proclamation of solving climate change by applying SEP philosophy in environmental management, and the assertion of similarities between SEP and sustainable development are argued by the official sources in news related to climate change. I point out that the discursive practices made by the officials internalise climate change agendas to the ideology of SEP that is local knowledge. On the one hand, this attempt increases the power in managing natural resources and environment of the government because SEP is a powerful discourse in Thai society that empowers “bourgeois values” (Unger 2009) in Thai society. The internalisation of climate change and sustainable development knowledge that are global agendas to SEP endorses the power of SEP discourse beyond the national domain. This reflects the tendency of the government to embed nationalist ideologies into global environmental agendas. This

circumstance confirms previous research (Billett 2010; Olausson 2010) which shows the increase of correlations between climate change agendas and discourses of nationalism.

On the one hand, this “extroverted domestication” (Olausson 2014) of climate change discourse in news related to climate change evidences the discursive practices that negotiate the power of global knowledge, namely sustainable development with local environmental knowledge that is SEP. These discourse practices, I argue, reflect crises in the identity positioning of Thailand in the global environmental movement. While the country has been relying on fossil fuels in economic growth stimulation, the pressure to comply with global standards in the modernisation era that is dominated by sustainable development discourse impacts on its relations with global trade. Moreover, “mediascapes” (Appadurai 1994) activate the power of sustainable development discourse in Thai society and, therefore, environmental practices in society are increasingly under scrutiny from social actors, especially transnational movement, “globalisation from below” (Beck 2009). Accordingly, it is difficult to resist this global pressure that increases tensions in the dilemmas of environmental management policy. By domestication of global knowledge, the government minimises the tension in the reality of environmental operations in the country enacted from the pressures of global discourse. The national environmental policies are legitimised with the discourse of SEP that claims the capability of becoming a low carbon society.

7.2.4 The news net enhances institutional source dependency, environmental frame-blindness, and polarisation in newsrooms

Research question 4, *what factors drive the influence of primary-definers in environmental news production in Thailand?*, is central to investigating the perception of journalists involved in the production of news related to environment and climate change in order to understand how and why the official news sources can sustain their power in defining environmental issues in news. This thesis’s research problematises journalistic practices in daily newspapers. The journalists perceive that climate change is an important issue but is not an emergency to Thai society. However, the findings from the textual analysis points out that news related to climate change is dispersed across diverse news sections in daily newspapers. This circumstance allows problematisation of particular factors in the process of newsgathering and news production.

In section 6.3, I argue that the organisational structure of news departments reinforces newswork which is beneficial to hegemonic culture (Gitlin 2003). The news net,

which is the structural control of news departments discourages environmental aspects in daily newspapers. While both organisational specialisation and topical specialisation structures are applied in news departments to increase the speed of access to news sources, these structures also enhance the power of high status news sources to shape the news agendas. The specialisation in the news net induces institutional source dependency in framing the news agenda, which, in turn, sustains the dominant ideology in society. Paosri (2016) uses the phrase, 'bureau addicted', to refer to the bureau reporters who attach information from the Ministry of Natural Resources and Environment to produce news related to environment.

Furthermore, the perceptions of journalists reflect that the news net rigidly controls the boundary responsibility of the reporter to specific topics across their topical specialisations. This structural control thus limits the perspectives of newswriters to particular topics in their news beats. Moreover, it separates the reporters from their colleagues in other news beats. I argue that this is the barrier to creativity of the newswriter in approaching these occurrences. Importantly, it reduces the opportunity of collaboration between news beats. Concerning climate change issues, this topic specialisation cannot convey the realities of climate change which comprise multi-dimensional issues, especially in Thailand where environmental problems are the dilemmas arising from developmental policies. Watanakul (2015) and Paosri (2016) also point out that journalists are aware of the limitations of the news net in producing news related to environment. For example, it restricts the processes of newsgathering and writing styles to the usual formats in hard news structures. Meanwhile, environmental issues in Thailand require the perspectives that engage the problems of developmental policy and environmental effects. This limitation leads to the decision to move to "soft news sections" by some reporters who are interested in writing about environmental news.

In regard to the limitations of the news net, I argue that there is frame-blindness (Maras 2013, pp.66-70) that is caused by the separation in newsrooms and the proximity between the reporter and news sources suppressing environmental approaches in news framing. Since the removal of environmental news desks and the economic news beats from the major news sections in daily newspapers, newsgathering processes that depend on the structure of the news net have increased the power of the institutional news sources to influence news framing by the reporters in news bureaux. The perceptions of the journalists from economic news beats show that they are not aware of the capitalist ideology that is attached to the way their institutional sources define the occurrences related to environment.

While the reporters in economic news beats agree that there are environmental aspects in economic news, they also advance the belief that this perspective is the task of the environmental news beat. This frame-blindness shows that the perceptions of journalists to their profession are determined from work experience in a news beat. They use this tacit knowledge to draw the idea of “what is news” that has turned to “common sense” in newsgathering. The perceptions of veteran environmental reporters and editors (Dettrakun 2015; Paosri 2016; Sriburee 2014; Kamkowitz 2014) show that the news beat prioritises the issues of social injustice in natural resource management and speaking for marginal groups. On the contrary, journalists from economic news beats (Pedchai 2015; Chana 2016) focus on topics related to capital growth to serve their investor readers. Due to the journalists from each news beat claiming their professional standards differently, they use the ideas of such professional standards as reasons to include and exclude particular aspects from the news stories.

These problems enhance the power of the authoritative news sources as primary-definers in news related to environment during this downturn of environmental journalism in Thailand. In terms of news related to climate change, the news articles, which are produced by general reporters, rely on the perspectives of officials and experts, while the aspects and realities of climate change problems in rural areas and marginalised people are discarded from news related to climate change. It is noticeable that closing down the environmental news desk fundamentally affects the development of environmental journalism in Thailand. Since the reporters lack experience of environmental newsgathering, they have insufficient tacit knowledge to frame occurrences with environmental aspects. Also, the newsroom has insufficient resources to produce environmental news stories such as contact and relationships with extensive news sources. This situation leads to the narrative of environmental news that focuses on conflict newsworthiness, which is derived from contradictions between two groups of elite people. Meanwhile, marginal people are constructed as victims in environmental news narratives. Climate change news, for example, is reported within the perspective of conflicts in national policies on reducing greenhouse gases rather than its effect on marginal people in Thailand.

In this light, the failure of the news net reflects that newswork in Thailand is increasingly a ‘vocabulary of precedent’ in producing news related to climate change. In the present day, journalists perceive that using authoritative news sources is “common sense” in newsgathering of climate change issues. Inexperienced journalists, especially bureau reporters, tend to agree with the experts and the authoritative framing in news reports related

to climate change. Moreover, they tend to engage in over trusting institutional news sources. This issue is also induced by the media strategies of institutional news sources that aim to create long term relationships with journalists.

Section 6.4 illustrates institutional source dependency and journalistic bias toward usual sources. I argue that the institutions, namely the government, high profile non-governmental organizations, and international news agencies, are core agents that journalists use in shaping their understanding about issues related to climate change. Paosri (2016), who is involved with news related to climate change, expresses that the facts from specific official sources are important for writing news related to climate change. This perception evidences that journalists rely on a “map of relevance knower” (Allan 2011, p.81) in choosing their news sources for climate change stories. In addition, the information from interviews with a climatologist (Sanitwong 2015) and the perception of the reporters confirm that the reporters tend to limit their newsgathering processes to issues related to climate change with their usual news sources. Moreover, the reporters tend to exclude access to relevant sources whose job titles are not relevant to their news genres. This situation means that the journalist already has a specific target of news sources whose credibility is sufficient to ensure the acceptance by society before the beginning of newsgathering processes. From this perspective, journalists take for granted the truths about climate change and environmental effects from the credibility of authoritative news sources.

Besides, the interview with the communicators from NGOs (Budsarin 2015; Thongruk 2015) shows that some NGO news sources realise this practicality of newswork. They thus design their media relations programmes to increase long term relationships with the reporters in news bureaux, as well as influencing the environmental news agendas in Thailand by exploiting the credibility of international news sources. I also point to the issue of over trusting relationships between the bureaux’ news reporters and their usual institutional news sources. This problem derives from the polarisation in newsrooms and the media relationship programmes of the institutional news sources. The information from interviews with economic news reporters (Kwanpong 2015) evidences that the reporter has a positive bias and trusts the information about the safety of coal-fired power plants released by the Electricity Generating Authority of Thailand. However, this perception arises from media relations programmes.

The following section 6.5 explores the possibility of reframing the structure of news departments and the newsgathering processes in environmental issues. I argue that it is

essential to increase collaborative work between news desks, helping to reflect climate change problems from extended angles and, also, reducing the polarisation in newsrooms that results in institutional source dependency. The collaboration between news desks would allow news related to environment to illustrate the dilemma of economic growth and the capability to utilise natural resources sustainably. This notion is explored in the investigation into the case of the establishment of the *Green Report*. The findings show that journalists are not entirely passive agents in the journalistic discipline. On the contrary, they have a tendency to actively re-evaluate their professional accountability in representing environmental issues to society. However, this creativity requires further experience outside the usual practicality in their news beats. The interview shows that journalists comprehend environmental realities differently when they have access to fieldwork, which leads to negotiations with journalistic norms in the news genre, especially dependency on authoritative news sources. Nonetheless, this negotiation can be activated with the consent of their news executives. Moreover, readership and marketing pressure are vital to these practicalities in the long run.

Finally, this thesis's research investigates the power of sponsorship to dominate and shape news agendas related to climate change in section 6.6. The findings show that marketing pressure is vital to the emergence of news agendas. The opinions of journalists reflect the fact that the survival of newspapers and news programmes influences the way that environmental issues are framed in the news reports. In terms of environmental news, self-censorship is activated to preserve long term relationships between journalists and powerful news sources. I also argue that journalists tend to proclaim the interest of their "imagined readers" to avoid criticism of their framing; for example, economic and business news beats ensure that they can exclude environmental aspects from the news by proclaiming that their readers are investors who are not interested in environmental stories. According to their claims, the issues related to news readers and their interest in environmental issues are of interest for future research.

Overall, the analysis of news texts combined with semi-structured interviews with journalists and news sources reflect the fact that the representation of climate change in the three newspapers is influenced by structural control, the news net, in the news departments. Journalistic norms attached to news framing, newsworthiness, and news narratives determine environmental realities that are selected and are excluded from specific news genres. Journalists use their "common sense" from tacit knowledge to produce news stories that comply with their news genres in order to maintain professional standards. In relation to this,

topical-oriented news organisation structures increase the polarisation in perception of environmental realities of newswriters. This polarisation undermines collaborative works between environmental and economic news beats. Moreover, institutional news sources have more opportunities to frame environmental news agendas in the newspapers. The investigation also shows that powerful institutions influence news production processes by sponsorship and engagement in long term relationships with news media.

This circumstance thus reflects the representation of climate change issues, truth-claims and the actors in news related to climate change. It can be seen that environmental news agendas in this thesis's research, the COP21 and the global warming lawsuit, are event-driven agendas that engage with the prominence of actors and conflict newsworthiness. Climate change is addressed as a global agenda in hard news, which reflects 'ecological-neo imperialism' of environmental knowledge in Thai society. Moreover, the power of climate change discourse is exploited by social actors, journalists and institutional sources to legitimise their local environmental practices related to conflicts in natural resource management in the country, especially energy policy. The analysis of domestication of climate change discourse relating to national ideology and sustainable development evidences the tendency of the government to legitimate environmental practices by increasing the sense of nationalism in the country. Also, the domestication of climate change discourses signifies crises in the identity positioning of Thailand among global environmental movements.

Accordingly, I insist that news institutions are unable to demonstrate their accountability in reporting realities of complex environmental problems in Thailand. The limitations stem from the structural limitations reflected in the business models and organisational structures that undermine collaborative works of journalists which allow essential perspectives of modern environmental problems. In addition to this are the conventions of the profession that determine entire processes in newsrooms. These two limitations suppress the creativity of newswriters in producing environmental news articles that are meaningful to the situation of Thailand among the challenges of the world which show that environmental risks are intense and affected beyond class and nations.

7.3 Implications of this thesis's research

The implications of news media to the “manufacturing” of risk that is claimed in the theory of risk is ambiguous as it has been criticised by some scholars (Anderson 2014, pp.15-18). The theory requires empirical investigations into specific areas that identify the relationship between media and risks such as types of media, the cultures in which such media operate, and the actors involved in the media production. In regard to this important notion, this thesis's research clarifies how newspapers in Thailand influence the manufactured risks of climate change. The findings of this thesis's research insist on the necessity of examining the discourse of risk in climate change and its discursive transformation across different media types and cultures, especially the investigation in developing countries where this issue receives less attention (*ibid.*, pp.75-77). This is because their dynamics of economics and socio-cultural contexts are markedly distinct from the first world.

The investigation of climate change discourse in newspapers in Thailand reveals a two-fold process whereby risks in climate change are manufactured in society. Firstly, from the macro perspective, since climate change knowledge has become a powerful environmental discourse in Thai society, risks of climate change advanced by international institutions are reproduced in Thai newspapers. Meanwhile, local agendas of risk in climate change have disappeared from the newspapers. This reflects a definitional hegemony of risk in climate change that has resulted from the operations of news media. The second fold of risk manufacturing lies in the “governmentality” of the state by using climate change discourse to support other environmental agendas which reach the news media. In this light, the transformation of the definition of risks in climate change in the context of Thailand insists that researchers are supposed to give attention to the structure of power in society along with the media production process. Since the idea of “risks” is a form of “knowledge” that is closely related to soft power, which varies in different cultures, the influence of particular actors in risk discourse thus relates to the structure of power in society.

Despite the notion that emphasises the impact of “sub-politics” in reflexive modernisation (Beck 2007), this finding evidences that state institutions in Thailand are increasingly strengthening their power to define environmental risks and operate their environmental practices. Meanwhile, the operations of NGOs, local and transnational, have a small opportunity to influence the manifestation of news agendas and frame the aspects in news. Although some scholars (Allan 2011, p.92; Anderson 2014, pp.9-12) indicate the success of the NGOs in acquiring news coverage by “disruptive strategy”, this strategy

seems ineffective in wrestling with the officials over the issues related to environmental policies in Thailand. Due to the limitation of the news net system and “common sense” in newsgathering of journalists, the power of official news sources in defining environmental issues takes place outside the consciousness (Gitlin 2003, p.257) of the journalists.

Accordingly, this thesis’s research extends the understanding of the operation of news media in reflexive modernisation taking place in Thailand. The empirical data generate further insight into characteristics of reflexive modernisation in developing countries, which is different from the context of the first world. This situation reflects the challenging future of developing countries in anticipation of climate change that is not merely the issue of “global inequality” (Beck 2009) and rights to development. This thesis’s research thus emphasizes the notion that climate change discourse can be exploited to support the “economic practice of capitalism” (Richardson 2007; p.43) within specific socio-cultural contexts in reflexive modernisation.

Finally, this thesis’s research, which is conducted based on Asian cultural contexts, reflects the necessity of “critical reflexivity” of journalistic disciplines in Thailand. Although the criticism of the tendency of journalism to maintain the “status quo” is advanced globally, journalism in Thailand is in a critical condition that is reflected in environmental news production investigated in this thesis’s research. It seems that the idea of ‘professional standards’ had become a barrier against developing professional standards to respond to global issues, especially climate change. This problem does not merely discourage the contribution of journalism to solve environmental issues in modernisation. It seems that the more journalists conform to professionalism, the stronger and more uneven the power structure in Thai society is sustained.

7.4 Looking forward to the future of environmental journalism in Thailand

The problem of pro-capitalist journalism in Thailand was addressed by the members of the discipline before the economic crisis in 1999 (Tangwisutijit and Janviroj 1995). The attempts to solve this issue have been obstructed by instability of national politics, for example, the establishment of the Thai Public Broadcast Service which started in 2006 and was intervened by the military coup in 2014. In terms of newspaper journalism, this thesis’s research also insists on the necessity of reforming the structure of organisations and the structure of newswork, in order to reduce intervention from sponsorship and business.

However, it is not likely that this reformation will be successful in the context of Thailand. Unlike developed countries where online membership schemes are brought to newspaper businesses to reduce dependency from advertising income, for example, the *Guardian* newspaper in the UK, the highest readership of national newspapers in Thailand is only 1,000,000 daily (Thailand has a population of 65 million people). Accordingly, challenges for environmental journalism in the news businesses reside in their own systems. This issue is similarly addressed from the viewpoint of the political-economy school where news media operations answer to their ownership models.

Despite this pessimistic perspective of news businesses, I argue that there are more opportunities than environmental journalism in Thailand being able to evolve itself to anticipate new environmental risks in modernisation. Nevertheless, this evolution needs to start from reframing the idea of journalism and its accountability to the representation of realities in reflexive modernisation. Regarding this thesis's research, the status of environmental journalism in Thailand is undermined by tensions of business survival. In addition, being a profession, the power of the attempt to conform with "professional standards" paradoxically paralyzes dynamic perspectives on modern environmental issues in the country. However, it is also shown that journalists are not entirely determined by journalistic norms. On the contrary, engaging with realities of environmental problems raises questions about journalistic standards in presenting environmental realities that were taken for granted as "common sense" in newswork. Therefore, the practical way to reframe journalistic perspectives can be started with rotations of journalists among diverse news sections. It needs to be acknowledged that journalism cannot contribute to public awareness of sustainable development if economic and environmental aspects are detached from each other in representation of environmental realities.

Finally, the thesis suggests that news organisations in Thailand need to adapt their structures applied to newsgathering processes. These adaptations are essential to survive the era of changing media landscapes. Daily newspapers in Thailand have maintained their power in setting agendas during the boom of broadcast media. This is because broadcast media in Thailand are strictly regulated by the government. However, with the arrival of online news agencies and social media platforms, daily newspapers are no longer the fastest news providers and their power to set agendas is hindered. To compete with the internet, newspapers need to focus on the depth of stories. This thesis's research illustrates the limitations of topical organisational structures and conventions in using the news nets that are unable to respond to the realities of environmental problems in reflexive modernisation.

While traditional methods of newsgathering are effective in maximizing resources in news production, they cannot encourage news stories that provide in-depth and rich perspectives on environmental realities. The increasing popularity of online news agencies that provide the news content in social media platforms is another pressure for daily newspapers.

7.5 Future research

The findings of this thesis's research provide insights into the close relationship between the elite groups and the journalistic practices in environmental issues in Thailand. The textual analysis and the semi-structured interview complement each other to empirically clarify that journalistic practices play their part in sustaining the power of the state to justify their environmental claims. Climate change discourse is domesticated to support nationalist ideology. This finding might lead to the notion that news institutions function to empower the elite class in the politics of environment. However, this claim still needs further empirical examination to strengthen the debate. Accordingly, I suggest that further investigation into this complicated area would be a valuable way to gain insights into how journalism and the powerful institutions corporately work in this capitalist society in Thailand. Also, the research is based on the approach that the political economy of mass media will benefit from the comprehension of the media and the power structures in Thailand.

In terms of the methodological advancement, this thesis's research designed the timeframe of data collection with the purpose of maximizing sampling volumes of news articles related to climate change. Since the articles were collected during the global agenda of the COP21 meeting, this "critical discourse moment" influences the dominating news agendas in the three newspapers. The finding that reflects the domestication of global agendas in local news content is also the repercussion of data collection methods. Regarding this condition, it is of interest for future research to conduct a discourse analysis of climate change in non-critical moments of news coverage. These different scenarios can result in different ways of framing climate change issues in news reports.

Moreover, future research can expand into soft news articles, which allow journalists to have more freedom to construct arguments related to climate change. This can increase understanding about the influence of cultural factors on environmental discourses in the country. This can bring further understanding to climate change issues as powerful discourses in Thai society.

Future research could also examine non-mainstream media. Since the issues related to environment are vital for communities in Thailand, community media and citizen journalism are other areas which are of interest to analyse discursive practices in climate change issues. Due to the time and spatial limits to conducting this thesis's research, I am unable to include samples from these media in the analysis. Future research can emphasise specific cases of how local newspapers respond to risks in climate change in their areas. Also, this will be useful for increasing insight into environmental journalism overall.

Finally, it is noticeable that particular framing which serves the expectations of imagined readers is imposed in a way by which environmental realities are reproduced in newswork (see section 6.5). In this sense, the analysis of audiences is important to redefining the relationship of newswriters and the production of news texts that contribute to climate change literacy in society. Readership is usually advanced from journalists to support their framing and news stories. However, this thesis's research shows that news organisations lack realistic and systematic data that concern their readers to justify their reproduction of environmental stories. I, therefore, suggest that audience analysis is important for future research. In terms of the discourse analysis, it is vital for the researcher to understand how the reader reads and interprets the news text. Since climate change issues are complex and transformable, the audience can frame news stories in a number of ways. This matter should be investigated in the context of Thailand, where the ideas about environment have been defined and redefined throughout the history of the nation. This thesis's research also shows that cultural factors have impacts on both the practice of journalism and the discourse of environment manifested in news. Therefore, further studies that provide empirical knowledge of how the audience frames environmental issues are vital. The research can benefit strategic improvements to communicate climate change to Thai communities.

Bibliography

- Albertson, B. 2015. Heart or Mind. *Research and Politic* (January-March), pp. 1–9.
- Allan, S. 1995. News, truth and postmodernity: unravelling the will to facticity. In: Adam, B. and Allan, S. eds. *Theorising Culture: An interdisciplinary critique after postmodernism*. 1st ed. London: UCL Press, pp. 129–144.
- Allan, S. 2002. *Media, risk, and science*. Philadelphia, PA: Open University Press.
- Allan, S. 2011. *News culture*. 3rd ed. Berkshire: Open University Press.
- Anderson, A. 1993. Source-media relations: the production of environmental agenda. In: Hansen, A. ed. *The Mass Media and Environmental Issues*. Leicester: Leicester University Press.
- Anderson, A. 1997. *Media, Culture and the Environment*. London: UCL.
- Anderson, A. 2000. Environmental pressure politics and the ‘risk society’. In: Allan, S., Adam, B., and Carter, C. eds. *Environmental risks and the media*. New York ; London: Routledge, pp. 93–104.
- Anderson, A. 2010. Communication or Spin? Source-media relations in science journalism. In: Allan, S. ed. *Journalism: Critical Issues*. London: Open University Press, pp. 188–198.
- Anderson, A. 2011. Sources, media, and modes of climate change communication: The role of celebrities. *Wiley Interdisciplinary Reviews: Climate Change* 2(4), pp. 535–546.
- Anderson, A. 2014. *Media, Environment and the Network Society*. 1st ed. London ; New York: Palgrave.
- Anne DiFrancesco, D. and Young, N. 2011. Seeing climate change: the visual construction of global warming in Canadian national print media. *Cultural Geographies* 18(4), pp. 517–536. Available at: <http://cgj.sagepub.com/cgi/doi/10.1177/1474474010382072> [Accessed: 16 November 2014].
- Appadurai, A. 1996. *Modernity at Large: Cultural Dimensions of Globalisation*. 1st ed. Appadurai, A. ed. Minnesota: University of Minnesota Press.
- Asunchai, K. 2014. *Interview, Capacity Building and Outreach Vice President of Thailand Greenhouse Gas Management Organization (Public Organization), 4 December 2015*.
- Atkinson, P. 2003. Revising the relationship between participant observation and interview. In: *Postmodern interviewing*. London: Sage Publications.
- Attaphrapas, P. 2001. *Mutual Benefit from the Relationship between Information Technology News Sources and Mass Media Personel*. Bangkok: Chulalongkorn.
- Baker, S. 2016. *Sustainable Development*. 2nd ed. New York ; London: Routledge.

- Beck, U. 1992. *Risk Society: Towards a New Modernity*. London ; Newbury Park, Calif. : Sage Publications.
- Beck, U. 1999. *World risk society*. Cambridge: Polity Press.
- Beck, U. 2009. *World at risk*. 2nd ed. Cambridge: Polity.
- Beck, U. 2009b. Critical Theory of World Risk Society: A Cosmopolitan Vision. *Constellations*. 16(1), pp.3-22.
- Benjarongkij, Y. and Boonchutima, S. 2017. Country report: Journalists in Thailand. *World of Journalist study*, pp. 1–5. Available at: <http://www.worldsofjournalism.org/country-reports/> [Accessed: 1 July 2017].
- Bhutapan, S.. *Interview, veteran environmental journalist, 7 September 2015*.
- Billett, S. 2010. Dividing climate change: global warming in the Indian mass media. *Climatic Change*. 99(1–2), pp. 1–16.
- Boykoff, J. and Boykoff, M. 2004. Balance as bias: global warming and the US prestige press. *Global Environmental Change*. 14(2), pp. 125-136.
- Boykoff, M.T. 2007a. Flogging a dead norm? Newspaper coverage of anthropogenic climate change in the United States and United Kingdom from 2003 to 2006. *Area* 39(4), pp. 470–481.
- Boykoff, M.T. 2007b. From convergence to contention: United States mass media representations of anthropogenic climate change science. *Transactions of the Institute of British Geographers* 32(4), pp. 477–489.
- Boykoff, M.T. 2008. Media and scientific communication: a case of climate change. *Geological Society, London, Special Publications* 305, pp. 11–18. Available at: <http://specpubgsl.highwire.org/content/305/1/11.short>.
- Boykoff, M.T. 2008. The cultural politics of climate change discourse in UK tabloids. *Political Geography* 27(5), pp. 549–569. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0962629808000425> [Accessed: 21 October 2014].
- Bruntland, G. 1987. Report of the World Commission on Environment and Development: Our Common Future (The Brundtland Report). *Medicine, Conflict and Survival*. Available at: <http://www.un-documents.net/our-common-future.pdf>
- Buathong, T. 2017. Report: Alternative Energies Beyond ‘Coal ’ [Raingarn: Tang Luak Aeun Nai Kan Palid Faifa Nokjak Tanhin] [Online]. Available at: <http://www.bbc.com/thai/thailand-39050875> [Accessed: 1 August 2017].
- Budsarin, S. 2015. *Interview, Coordinator of Green Peace Thailand 11 December 2015*.
- Cannon, T. and Müller-Mahn, D. 2010. Vulnerability, resilience and development discourses in context of climate change. *Natural Hazards* 55(3), pp. 621–635. Available at: <http://link.springer.com/10.1007/s11069-010-9499-4> [Accessed: 25 September 2014].

- Carvalho, A. 2007. Ideological cultures and media discourses on scientific knowledge: re-reading news on climate change. *Public Understanding of Science* 16, pp. 223–243.
- Castree, N. 2010. The Politics of Climate Change. *The Sociological Review* 58, pp. 156–162.
- Castree, N. 2013. *Making Sense of Nature*. New York ; London: Routledge.
- Chakpisut, S. 2014. *The Final Report of Encouraging Scheme for Investigative Report in Newspapers [Ray Ngan Chabub Somboon Neawtang Kan Tam Hai Kerd Kan Saneur Kao Cheung Suebsuan (investigative report) Nai Nungsuepim]*. Bangkok. Available at: <https://www.tcijthai.com/news/2014/04/archived/4083> [Accessed: 25 May 2017]
- Chana, I. 2016. *Interview, Economic news reporter, The Bangkokian newspaper, 4 January 2016*.
- Charounsinolarn, C. 2006. *Development Discourse: Power Knowledge Truth Identity and Otherness*. Bangkok: Wipasa.
- Chidtaisong, A. 2010. *Thailand climate change information. Volume 1, Past climate*. 2nd ed. Bangkok: Thailand Reserach Fund's Reserach and Development and Co-ordination Center for Global Warming and Climate Change - T-GLOB.
- Chongkittavorn, K. 2013. Thailand: A troubled path to a hopeful future. In: Williams, L. and Rich, R. eds. *Losing Control: Freedom of the Press in Asia*. ANU Press, pp. 219–238.
- Chongkolrattanaporn, T. 2011. *Global Warming Campaigns in Bangkok: Framing Analysis and Campaign the Effectiveness*. Bangkok; Chulalongkorn University (PhD Thesis).
- Chuenjaichon, J. 2005. *Content Analysis of Environment in Thai Daily Newspapers*. Bangkok; Thammasat University (PhD Thesis).
- Cottle, S. 1998. Ulrich Beck, 'Risk Society' and the Media: A Catastrophic View? *European Journal of Communication* 13, pp. 5–32.
- Cottle, S. 2000. TV news, lay voicess and the visualisation of environmental risks. In: Allan, S., Adam, B., Carter, C., and eds. *Environmental risks and the media*. London ; New York: Routledge, pp. 30–44.
- Cottle, S. 2003a. Media Organisation and Production : Mapping the Field. In: Cottle, S. ed. *Media Organisation and Production*. London: Sage Publication, pp. 3–25.
- Cottle, S. 2003b. News, Public Relations and Power - TV Journalism and Deliberative Democracy: Mediating Communicative Action. In: *News, Public Relations and Power*. pp. 153–171.
- Cottle, S. 2011. Taking Global Crises in the News Seriously: Notes from the Dark Side of Globalization. *Global Media and Comunication* 7(2), pp. 77–95.
- Cox, R. 2010. *Environmental Communication and the Public Sphere*. 7th ed. London: Sage Publications.
- Daradirek, E. 2000. Thailand. In: Gunaratne, S. A. ed. *Hand book of the Media in Asia*. 1st ed. London ; New York: Sage Publication.

- Davies, N. (2008) *Flat Earth News*, London: Chatto and Windus.
- Dettrakun, M. 2015. *Interview, Veteran Environmental journalist, 7 January 2016*.
- Dijk, T.A. van 2008. *Discourse and Context: A sociocognitive Approach*. London: Cambridge university press.
- Dirikx, A. and Gelders, D. 2010. Ideologies Overruled? An Explorative Study of the Link Between Ideology and Climate Change Reporting in Dutch and French Newspapers. *Environmental Communication: A Journal of Nature and Culture* 4(2), pp. 190–205. Available at: <http://www.tandfonline.com/doi/abs/10.1080/17524031003760838> [Accessed: 16 November 2014].
- Dryzek, J.S. 2005. *The Politics of the Earth*. 2nd ed. Dryzek, J. S. ed. Oxford: Oxford University Press.
- Duangmanee, K. 1999. Environmental Education Process of Business Organisation for Mass Media. Bangkok; Chulalongkorn University (PhD Thesis).
- Edwards, L. 2011. Critical Perspectives in Global Public Relations : Theorising Power. In: Bardhan, N. ed. *Public Relations in Global Cultural Contexts*. 1st ed. New York ; London: Routledge, p. 30.
- Egan PJ and Mullin M (2012) Turning personal experience into political attitudes: The effect of local weather on Americans' perceptions about global warming. *The Journal of Politics* 74(03): 796–809.
- Entman, R. M. 1993. Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication* 43(4), pp. 51- 58.
- ETDA Thailand. 2015. *The Survey of Thailand Internet User Profile 2015*. Available at : http://unctad.org/meetings/en/Contribution/dtl_eweek2016_ETDA_IUP_en.pdf (Accessed: 7 June 2015)
- Fahn, J. 2003. *A Land on Fire: The Environmental Consequences of the South East Asian Boom*. 1st ed. New York: Westview Press.
- Fahn, J. 2008. Rescuing reporting in the global South [Online]. Available at: http://www.internews.org/articles/2008/20080626_nature_fahn.shtm%0AReferences.
- Fairclough, N. 1989. *Language and Power*. London ; New York: Longman.
- Fairclough, N. 1992. *Discourse and Social Change*. Cambridge: Polity Press.
- Fairclough, N. 1995. *Media Discourse*. 1st ed. London: Edward Arnold.
- Fairclough, N. 2003. *Analysing Discourse: Textual Analysis for Social Research*. London ; New York: Routledge.
- Farbotko, C. 2005. Tuvalu and Climate Change: Constructive of Environment Displacement in the Syd Morning Herald. *Human Geography* 87(B), pp. 279–293.
- Fishman, M. 1978. *Manufacutring the News*. Austin: University of Texas Press.

- Forde, S. and Johnston, J., 2013. The News Triumvirate, *Journalism Studies*, 14:1, 113-129, DOI: 10.1080/1461670X.2012.679859
- Foucault, M. 1978. Discipline and Punish: The Birth of the Prison. *Contemporary Sociology* 7(5), pp. 1–333.
- Gandy, O. 1982. *Beyond Agenda Setting: Information Subsidies and Public Policy*. London; New York: Ablex Publishing Company.
- Giddens, A. 2011. *The Politic of Climate Change*. 2nd ed. London ; New York: Wiley.
- Gitlin, T. 2003. *The Whole World is Watching: Mass Media in the Making and Unmaking of the New Left with a New Preface*. Berkeley, Lt, London: University of California Press.
- Goffman, E. 1974. *Frame analysis: an essay on the organization of experience*. Cambridge, Mass: Harvard University Press.
- Golding, P. 1979. *Making the news*. London: Longman.
- Hall, S. 1977. *Policing the crisis : mugging, the state, and law and order*. London: Macmillan.
- Hallin, D.C. 1992. *The Uncensored War: The Media and Vietnam*. California: University of California Press.
- Hannarong, F. 2014. *Interview, Communication Manager of Thai Climate Justice Working Group*.
- Hansen, A. 2000. Claims-making and framing in British newspaper coverage of the ‘Brent Spar’ controversy. In: Allan, S., Adam, B., and Carter, C. eds. *Environmental Risks and The Media*. New York: Routledge, pp. 55–72.
- Hansen, A. 2008. Visually Branding the environment: climate change as a marketing opportunity. *Discourse Studies* 10(777).
- Harris, M. 1997. Farewell to Fleet Street? In: M. Bromley and T. O’Malley (eds). *A Journalism Reader*. London: Routledge.
- Hendel, R. 2008. Mary Douglas and Anthropological Modernism. *Journal of Hebrew Scriptures* 8.
- Herman, E. and Chomsky, N. 1988. *Manufacturing consent : the political economy of the mass media*. New York: Pantheon Books.
- Heroux, Erick. “SubStance.” *SubStance*, vol. 30, no. 3, 2001, pp. 143–150. *JSTOR*, JSTOR, www.jstor.org/stable/3685769.
- ilaw 2017. New Constitution Summary: Centralised, dismiss local election in some area, reduce citizen participation [Sarub Rang Rattammanoon: Krajai Amnad Toylang Bang Tong Thin Maitong Leuaktung Lae Lod Kanmee Suanruam Prachachon] [Online]. Available at: <https://ilaw.or.th/node/4212> [Accessed: 7 May 2016].

- Intergovernmental Panel on Climate Change 2015. Research and Background [Online]. Available at: <http://www.ipcc.ch/> [Accessed: 1 October 2016].
- Isenhour, C. 2012. The politics of climate knowledge: Sir Giddens, Sweden and the paradox of climate (in)justice. *Local Environment*, pp. 1–16. Available at: <http://www.tandfonline.com/doi/pdf/10.1080/13549839.2012.729570>.
- Jamison, A. 2003. *The making of green knowledge: : Environmental Politics and Cultural Transformation*. 1st ed. Cambridge: Cambridge university press.
- Jang, S.M. and Hart, P.S. 2015. Polarized frames on ‘climate change’ and ‘global warming’ across countries and states: Evidence from Twitter big data. *Global Environmental Change* 32(0), pp. 11–17. Available at: <http://www.sciencedirect.com/science/article/pii/S0959378015000291>.
- Janthong, W. 2015. *Interview, Krungthepturakit Green Report Editor, 20 September 2015*.
- Jaspal, R. and Nerlich, B. 2014. Fracking in the UK press: threat dynamics in an unfolding debate. *Public understanding of science* 23(3), pp. 348–63. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/23942831> [Accessed: 26 September 2014].
- Johnston, J. and Forde, S. 2017. Churnalism. *Digital Journalism*, 5(8), pp. 943-946, DOI: 10.1080/21670811.2017.1355026
- Kaewthep, K. 2013. *Environmental Communication (Suesan Singwadlom)*. 1st ed. Bangkok: Chulalongkorn University Press.
- Kaiser, K. 2012. Protecting Confidentiality. In: Jaber F.Gubrium, James A Holstein, Amir B.Marvasti, K. D. M. ed. *The Sage Handbook of Interview Research: The Complexity of the Craft*. 2nd ed. London: Sage Publication, pp. 457–464.
- Kaiyoonwong, S. 2009. Global Warming Discourse: Villagers are scapegoat (Wa Ta Kam Loak Ron Chao Ban Kue Pu Rub Bab) [Online]. Available at: <http://prachatai.com/journal/2009/09/25994> [Accessed: 5 May 2016].
- Kamjinda, N. 2016. *Interview, Online Editor, Thai City newspaper, 7 January 2016*.
- Kamkowitz, J. 2014. *Interview, Environment Section Editor of Thai Independent Channel, 6 November 2015*.
- Kanchana, C. 2015. *Interviewing, Editor in Cheif, Krungthepturakit newspaper, 6 November 2015*.
- Kanpirom, P. 2015. *Interviewing, Editor, TV news, 25 November 2015*.
- Kasemwit, J. 2008. The Representation of Global Warming on Thai Websites and The Audience’s Perception. Bangkok: Chulalongkorn University (Thesis).
- Kasetsart University 2015. About us [Online]. Available at: <http://www.ku.ac.th/web2012/index.php?c=adms&m=mainpage1>.
- Kaviya, S. 1997. *Ecological Journalism*. 1st ed. Bangkok: KledThai Co.,Ltd.

KerdBhoka, T. 2016. 25 Years of Pak Moon Dam: Crime in the Shadow of Development (25 Pee Kuan Pak Moon : Arch Cha Ya Kam Nai Ngoa Kan Pad Tha Na) [Online] Available at: <https://prachatai.com/journal/2016/03/64461> [Accessed: 10 November 2016].

Klaprayut, M. 2014. *Interview, Communication Manager of Thai Climate Justice Working Group.*

Kongton, S. 2010. คดีค่าเสียหายทำให้โลกร้อนกับเกษตรกร [Kadee Ka Sia Hai Tam Hai Lok Ron Kub Kased Ta Kon] [Online]. Available at: http://www.landactionthai.org/land/index.php?option=com_content&view=article&id=134:2012-05-31-06-38-34&catid=96:warming&Itemid=570 [Accessed: 11 November 2017].

Kwanpong, A. 2015. *Interview, Industrial Editor, The Trade Post newspaper, 26 September 2015.*

Lee, J., Hong, Y., Kim, H., Hong, Y., & Lee, W. 2013. Corrigendum: Trends in Reports on Climate Change in 2009-2011 in the Korean Press Based on Daily Newspapers' Ownership Structure. *Journal of Preventive Medicine and Public Health*, 46(5), 291. <http://doi.org/10.3961/jpmph.2013.46.5.291>

Livesey, S.M. 2002. Global Warming Wars: Rhetorical and Discourse Analytic Approaches to Exxonmobil's Corporate Public Discourse. *Journal of Business Communication* 39(1), pp. 117–146. Available at: <http://job.sagepub.com/cgi/doi/10.1177/002194360203900106> [Accessed: 16 November 2014].

Luke, T.W. 1995. On Environmentality: Geo-Power and Eco-Knowledge in the Discourses of Contemporary. *Cultural Critique* (31), pp. 57–81. Available at: <http://www.jstor.org/stable/1354445%5Cnhttp://www.jstor.org/page/info/about/policies/terms.jsp>.

Manager Online 2015. Victims from Mae Moh received last remedy. *Manager*. Available at: <http://info.gotomanager.com/news/details.aspx?id=77992>

Manning, P. 2001. *News and News Sources: A Critical Introduction*. 1st ed. London: Sage Publications.

Maras, S. 2013. *Objectivity in Journalism: Key concepts in Journalism*. 1st ed. Cambridge: Polity.

McNaught, R., Warrick, O. and Cooper, A. 2014. Communicating climate change for adaptation in rural communities: A Pacific study. *Regional Environmental Change* 14(4), pp. 1491–1503.

Met Office What do we mean by climate change [Online]. Available at: <https://www.metoffice.gov.uk/climate-guide> [Accessed: 1 June 2016].

Micheal, B. 2001. *Effective Media Relations*. 2nd ed. London ; New York: Institute of Public Relations.

Ministry of Energy 2016. *National Energy Strategic Plan (2016-2020) [Yud Tha Sad Kra Suang Palang Ngarn 2559-2563]*. Bangkok: Ministry of Energy.

Ministry of Energy 2017. Thailand Energy Information Centre [Online]. Available at: <http://info.energy.go.th/en/report-en/> [Accessed: 16 January 2017].

Ministry of Natural Resource and Environment 2017. *Strategic Plan (2013-2018) of Ministry of Natural Resource and Environment*. Bangkok.

Mitreraman, S. 1995. The Role of Sarakadee Magazine in Natural Resource and Environmental Conservation [Bot Bat Kong Nita Ya San Sarakadee Nai Kan Anu Rak Sap Pa Ya Kon Tham Ma Chad]. Chulalongkorn University.

Moonwisit, J. 2015. *Interview, Marketing section editor, Krungthepturakit newspaper, 6 November 2015*.

Morse, J.M. 2012. The Implications of Interview: Type and Structure in Mixed Method Design. In: Jaber F.Gubrium, James A Holstein, Amir B.Marvasti, K. D. M. ed. *The SAGE Handbook of Interview Research: The Complexity of the Craft*. 2nd ed. London: Sage Publication, pp. 193–197.

Moser, S. and Dilling, L.(eds) (2007) *Creating a Climate for Change: Communicating Climate Change and Facilitating Social Change*. New York: Cambridge University Press.

Motion, J. and Leitch, S. 2009. On Foucault: A Toolbox for Public Relations. In: Ihlen, Øyvind Ruler, B. Van ed. *Public relations and social theory: Key figures and concepts*. 1st ed. London ; New York: Routledge, pp. 83–102.

National Research Council of Thailand 2017. Science Personel in Thailand Statistic [Online]. Available at: <http://www.nrct.go.th/ภาพรวมการวิจัยของประเทศ/ขอมูลดัชนีการวิจัย/บุคลากรทางการวิจัยและพัฒนาของประเทศปี2544.aspx#.WX852tPyuT9>.

Nelkin, D. 1994. Promotional Metaphors and their Popular Appeal. *Public Understanding of Science*, 3 (1), 25–31.

Nisbet, M. 2010. Knowledge Into Action: Framing the Debates Over Climate Change and Poverty. In: D'Angelo,P., Kuypers, J., and eds. *Doing news frame analysis: Empirical and theoretical perspective*. London; Routledge.

Noosong, S. 1995. The Survey of Knowledge level and Attitude about Nuclear Power and Nuclear Power Plant of Bangkok Residents [Kan Sam Ruad Radab Kwam Roo Lae Tad Sa Na Ka Ti Keaw Kab Palang Ngan Nuclear Lae Rong Fai Fa Nuclear Kong Pra Cha Chon Bangkok]. Chulalongkorn University.

O'Neill and Hulme, 2009. An Iconic Approach for Representation Climate Change. *Global Environment Change* 19, pp. 402–410.

Olanrat, O. 2009. Content Analysis of Global Warming Issue in Online Newspapers. Bangkok: Chulalongkorn University (Thesis).

Olausson, U. 2009. Global warming--global responsibility? Media frames of collective action and scientific certainty. *Public Understanding of Science* 18(4), pp. 421–436. Available at: <http://pus.sagepub.com/cgi/doi/10.1177/0963662507081242> [Accessed: 4 November 2014].

Olausson, U. 2010. Towards a European identity? The news media and the case of climate change. *European Journal of Communication* 25(2), pp. 138–152. Available at: <http://journals.sagepub.com/doi/10.1177/0267323110363652>.

- Olausson, U. 2014. The Diversified Nature of ‘Domesticated’ News Discourse: The case of climate change in national news media. *Journalism Studies* 15(6), pp. 711–725.
- Palmer, J. 2000. *Spinning into control : news values and source strategies*. London ; New York : Leicester University Press 2000.
- Paosri, T. 2016. *Interview, Reporter, The First newspaper, 18 January 2016*.
- Pedchai, N. 2015. *Interview, Reporter, Thailand Post newspaper, 5 August 2015*.
- Petts, J., Horlick-Jones, T., Murdock, G., Hargreaves, D., McLachlan, S. and Lofstedt, R. 2001. *Social amplification of risk: The media and the public*. Sudbury: HSE Books.
- Phiphitkul, W. 1994. *Newspapers’ Role on Environmental Risk Concerning the Mae Moh Power Plant*. Bangkok: Chulalongkorn University (Thesis).
- Priest, S.H. 2010. *Encyclopedia of Science and Technology Communication. 1st ed*. London: Sage Publications.
- Puangpia, K. 2010. *Knowledge , Attitude and Participation Concerning the Global Warming Problem Solving of Secondary School Students in Bangkok*. Bangkok: Thammasat University (Thesis).
- Raksasi, W. 2015. *Interviewing, Former News Editor, Thai Independence channel, 20 October 2015*.
- Ramos, R. and Carvalho, A. 2000. Chapter Twelve: Science as Rhetoric in Media Discourses on Climate Change. In: *Science as Rhetoric in Media Discourses on Climate Change*. pp. 223–247. Newcastle: Cambridge Scholar.
- Reese, S. D. 2001. Prologue--Framing public life. A bridging model for media research. In: Reese, S.D. et al. eds. *Framing Public Life: Perspectives on Media and our Understanding of the Social World*. Mahwah, N.J.: Lawrence Erlbaum, pp. 7-31.
- Reynolds, T.W., Bostrom, A., Read, D. and Morgan, M.G. 2010. Now what do people know about global climate change? Survey studies of educated laypeople. *Risk analysis : an official publication of the Society for Risk Analysis* 30(10), pp. 1520–38. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/20649942> [Accessed: 16 November 2014].
- Richardson, J.E. 2007. *Analysing Newspapers: An Approach from Critical Discourse Analysis*. 1st ed. New York: Palgrave Macmillan.
- Rubin, H. 2012. *Qualitative Interviewing The Art of Hearing*. 2nd ed. London: Sage Publications.
- Salathong, J. 2009. *Global warming in Thai Newspaper (Loakron nai Nung Sue Pim Thai). Krungthepturakit*. Available at: <http://jesssalathong.wixsite.com/salathong/untitled-c180p>.
- Salathong, J. 2011. *Media coverage in the context of Education for Sustainable Development : Climate change in Thailand’ s newspapers*. Waseda University (PhD Thesis).

Samabhuti, K. 1997. *Green Journalism (Warasansat See Keow)*. Bangkok: Thammasat University.

Samabhuti, K. 2014. *Interviewing, The Secretariat of Environmental Journalist Association of Thailand, 6 July 2014*.

Sampei, Y. and Aoyagi-Usui, M. 2009. Mass-media coverage, its influence on public awareness of climate-change issues, and implications for Japan's national campaign to reduce greenhouse gas emissions. *Global Environmental Change* 19(2), pp. 203–212.

Sangthong, N. 2015. *Interviewing, Reporter, The Bangkokian Newspaper, 16 October 2015*.

Sanitwong, A. 2015. *Interview, Director, The Geo-Informatics and Space Technology Development Agency (Public Organization), 11 November 2015*.

Schudson, M. 2003. *The sociology of news*. Alexander, J. C. ed. New York: WW.Norton and Company.

Schumacher, E.F. 1973. *Small is Beautiful: economics as if people mattered*. London: Vintage.

Silverstone, R. 1999. What's new about news? *New Media & Society* 1(10), pp. 10–82.

Strydom, P. 2002. *Risk, Environment and Society: Ongoing Debates, Current Issues and Future Prospects*. London ; New York: Open University Press.

Tangwisutijit, N. and Janviroj, P. 1995. The Influence of Politics and Policies on Journalism Values in Thailand. In: *Paper presented at Kuala Lumpur Seminar on Asian Values in Journalism*.

TCIJ 2014. Leak! PR Big firm secret files 'Bribe journalists - delete internet post - back by academic' (Lood! Akasan Fai PR Turakid Yakyai 'Jaisue-Lobkratoo-aungchuenukvichakan') [Online]. Available at: <http://www.tcijthai.com/news/2014/7/scoop/4559> [Accessed: 14 May 2015].

TDRI 2000. *TDRI Report for The World Commission on Dams: Pak Mun Case Study*. Available at: http://tdri.or.th/wp-content/uploads/2013/04/pak_mun_dam.pdf

Thabthong, S. 2014. *Interview, Krungthep Turakit Green Report Editor*.

Thai Lawyer for Human Rights 2015. Human Rights One Year After the 2014 Coup: A Judicial Process in Camouflage Under the National Council for Peace and Order [Online]. Available at: http://www.tlhr2014.com/th/?wpfb_dl=21

Thai Public Broadcast Service 2017. Environment Resource Plan and Policy Center announce 17 main issues and 143 minor issue led to disapproving EIA of Krabi power plant [Sor Por Sarub 17 Praden Yai 143 Praden Yoy Tee Klub Rong Fai Fa Krabi] [Online]. Available at: <http://news.thaipbs.or.th/content/260340> [Accessed: 20 February 2017].

Thailand Greenhouse Gas Management Organisation 2017a. *Action Plan (2018-2022) of Thailand Greenhouse Gas Management Organisation*. Bangkok.

Thailand Greenhouse Gas Management Organisation 2017b. *Strategic Plan (2018-2022) of Thailand Greenhouse Gas Management Organisation*. Bangkok.

The Electricity Generating Authorities of Thailand General Information of the Krabi Clean Technology Coal Power Plant and Baan Klong Rua Pier (Kor Moon Phuentan Krong Kan Rong Fai Fa Tan Hin Sa-ad Krabi and Ta Tieb Rua Baan Klong Rua) [Online]. Available at: https://www.egat.co.th/index.php?option=com_content&view=article&id=1863&Itemid=317.

The Electricity Generating Authorities of Thailand 2015. The Balance of Energy TVC (Palang Ngarn tee Somdoon) [Online]. Available at: <https://www.youtube.com/watch?v=KZF382H7LjY> [Accessed: 1 August 2017].
The Ministry of Energy Thailand 2012. Alternative Energy Development Plan : AEDP 2012-2021.

The Office of Natural Resources and Environmental 2015. *The National Climate Change Master Plan (2015 -2050) [Pan Mae Bot Rong Rub Kan Plean Plang Sapab Bhumi Akad Por Sor 2558-2593]*. Bangkok.

The Office of Natural Resources and Environmental Policy and Planning 2013. *The Power Development Plan (2015-2036) [Pan Pad Ta Na Kam Lang Pa Lit Fai Fa Kong Pra Ted Thai Por Sor 2558 - 2579]*. Bangkok.

The Royal Forest Department of Thailand 2017. Background of Establishing of National Park (Kwam Pen Ma Kong Audthayan Hang Chad Pratedthai) [Online]. Available at: <http://portal.dnp.go.th/Content/nationalpark?contentId=1169> [Accessed: 17 June 2017].

Thongrak, S. 2015. *Interview, Director, The Environmental Foundation, 12 December 2015*.

Tillinghast, W. 2013. climate change in four magazines: 1989-2009. *Online Journal of Communication and media Technology* 3(1), p. 22.

Tuchman, G. 1980. *Making News*. 1 ed. New York: Free Press.

Tulloch, J.C. and Zinn, J.O. 2011. Risk, health and the media. *Health, Risk & Society* 13, pp. 1–16.

UNFCCC Status of Ratification of the Kyoto Protocol [Online]. Available at: http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php [Accessed: 1 July 2015].

UNFCCC 2015. The Paris agreement [Online]. Available at: http://unfccc.int/paris_agreement/items/9485.php [Accessed: 4 October 2017].

Unger, D. 2009. Sufficiency economy and the bourgeois virtues. *Asian Affairs*.
United Nation Bonn Climate Conference Becomes Launch-Pad for Higher Ambition [Online]. Available at: <https://cop23.unfccc.int/> [Accessed: 1 June 2016].

Uusi-Rauva, C. and Tienari, J. 2010. On the relative nature of adequate measures: Media representations of the EU energy and climate package. *Global Environmental Change* 20(3), pp. 492–501. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0959378010000129> [Accessed: 16 November 2014].

Wannapreuk, S. and Sooksai, S. 1998. The Role of News Media in Environmental News Reporting: the Case of 'Mae Moh Pollution - Dead Pong River' (Bod BaD Sue Muan Chon Tor Kan Sa Ner Kao Sing Wad Lom Ko Ra Nee 'San Pid Mae Moh - Nam Pong Nao'). *News Media Review*, pp. 39–42.

Wannasiri, A. 2005. Policy of Environment Program on Free TV. of Thailand. Thammasat University (Thesis).

Watanakan, S. 2015. *Interviewing, Section Editor, The First News Newspaper, 17 November 2015*.

Wengraf, T. 2001. *Biographic Narrative and Semi-Structured Methods*. London: Sage Publications.

Williams, A. 2015. *Environmental news journalism, public relations, and news sources*. In: Hansen, Anders and Cox, Robert eds. *The Routledge Handbook of Environment and Communication*, London: Routledge, pp. 197-206.

Wirth, V. 2014. Communicating Climate Change Adaptation State of the Art and Lessons Learned from Ten OECD Countries. *GAIA* 23(1), pp. 30–39.

Wongtheerathorn, S. The History of Journalism in Thailand with the Theories of the Press. *Academic Journal Sripatum University (Warasan Vichakan Sripatum Chonburi)*. Available at: http://www.east.spu.ac.th/journal/booksearch/upload/89-A68p47_55.pdf.

Woods, R., Fernandez, a. and Coen, S. 2010. The use of religious metaphors by UK newspapers to describe and denigrate climate change. *Public Understanding of Science* 21(3), pp. 323–339. Available at: <http://pus.sagepub.com/cgi/doi/10.1177/0963662510385061> [Accessed: 16 November 2014].

World Bank Organisation Thailand: Growth, Poverty, and Income Distribution: An Economic Report [Online]. Available at: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPOVERTY/EXTPA/0,,contentMDK:20204977~menuPK:443280~pagePK:148956~piPK:216618~theSitePK:430367,00.html> [Accessed: 29 July 2017].

World Resource Institution 2017. Interactive Chart Explains World's Top 10 Emitters, and How They've Changed [Online]. Available at: <http://www.wri.org/blog/2017/04/interactive-chart-explains-worlds-top-10-emitters-and-how-theyve-changed> [Accessed: 13 June 2017].

Yenmankong, P. 1996. Risk Communication of the Audience in Thermal Power Plant Construction Area, Chiangmai [Kan Sue San Nai Pa Wa Kwam Sieng Kong Pu Rab San Nai Ked Tee Mee Kan Ko Sang Rong Fai Fa Palang Kwam Ron Chak Ka Ya, Cheingmai]. Bangkok: Chulalongkorn University.

Young, N. and Dugas, E. 2011. Representations of climate change in canadian national print media: The banalization of global warming. *Canadian Review of Sociology* 48, pp. 1–22.

Zia, a. and Todd, a. M. 2010. Evaluating the effects of ideology on public understanding of climate change science: How to improve communication across ideological divides? *Public Understanding of Science* 19(6), pp. 743–761. Available at: <http://pus.sagepub.com/cgi/doi/10.1177/0963662509357871> [Accessed: 2 October 2014].

Appendices

Appendix 1: Advertisement, *Bangkok Post* newspaper, 31 October 2015, page 3



TGO-CITC seminar sets the pace on regional efforts to battle climate change



Meeting brings together ASEAN and world experts to outline strategies and core services of ground-breaking Thai government environmental agency.

A recent seminar hosted by Climate Change International Technical and Training Center (CITC), the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) provided a valuable forum for leading international academics, who shared findings and views on a variety of subjects related to the effects of so-called "greenhouse gas" (GHG) emissions.

The CITC was established in 2014 as a comprehensive knowledge source and networking platform to provide ASEAN members and other developing countries with the resources and know-how to fund and implement climate change mitigation (GHG-reducing measures) and adaptation (measures dealing with the impact of climate change).

The event, entitled "Regional Workshop for Capacity Development on Climate Finance in Southeast Asian Countries", was held on 28 Oct 2105 at Bangkok's Pullman King Power Hotel.

Those attending included Thai and ASEAN representatives from central governments, private organizations and academic institutions.

According to CITC Director, Dr. Jakkanit Kananurak, the seminar was intended to lay the groundwork for regional cooperation in tackling climate change, and familiarise various players with the center's mission and services.

"[The workshop] sets the stage for ASEAN nations to come together, collaborate and share knowledge on climate change and take a unified action." He said.

The workshop objectives were to update participants on the current status and trends in GHG mitigation mechanisms, and to share ideas relating to CITC training programmes



Dr. Jakkanit Kananurak

regional cooperation, because addressing the issue of global warming requires a unified front and a high level of efficiency to avoid wasting resources.

"The beauty of sharing knowledge is that each country has its own area of expertise, and we can all benefit from the [ASEAN] community's collective knowledge. In other words, it's not necessary to 're-invent the wheel' on each issue."

"For example, Thailand is well-advanced in energy efficiency and agriculture, while the Philippines has implemented effective adaptation measures against coastal erosion... All ASEAN countries can share this valuable knowledge and enjoy mutual benefits."

In terms of benefits for those attending, the workshop served to provide the diverse gathering of academics and professionals with a clear picture of the current climate finance landscape and latest trends, as well as to impart the most up-to-date information on climate finance mechanisms and access strategy.

In addition, the meeting highlighted major issues and barriers faced by countries and organisations, such as access to climate finance, and explored their possible solutions. It also defined capacity development needs common to ASEAN nations, and the advantages of participation upcoming CITC training programs.



Regional Workshop for Capacity Development on Climate Finance in Southeast Asian Countries

www.tgo.or.th • www.citc.in.th



TGO-CITC leads regional response to global warming



ITC
Climate Change
International
Technical and
Training Center

Thai government environmental agency's flagship initiative set to become the region's go-to technical and training centre for addressing the causes and effects of climate change.



Khun Prasertsuk Chamommarn

The Thailand Greenhouse Gas Management Organization (Public Organization) (TGO) serves as the agency responsible for activities and initiatives aimed at reducing the causes and environmental impact of so-called "greenhouse" gas (GHG) emissions, which have been found to be the primary cause of global warming.

The TGO works to advance the aims of the 1994 United Nations Framework Convention on Climate Change (UNFCCC), the objective of which is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous [human] interference with the climate system."

To address this crucial issue and foster a unified regional response, the TGO created the Climate Change International Technical and Training Center (CITC) in 2007, as a comprehensive knowledge source and networking platform to provide ASEAN members and other developing countries the resources and know-how to fund and implement climate change mitigation (GHG-reducing measures) and adaptation (measure dealing with impact of climate change).

As Executive Director, Khun Prasertsuk Chamommarn, explains: "The CITC is the National Designated Authority (NDA) for certifying [GHG] mitigation projects in Thailand." We are trying to establish a domestic Carbon Credit market — much like a stock exchange — in order to increase the incentives for local developers to make their projects environmentally friendly."

Development projects which take measures to reduce GHG emissions can seek CITC certification, which allows them to issue Carbon Credits and sell them to other developers to enhance their carbon emissions quotas.

The CITC bases its work on global, regional and national plans and policies, serving as a one-stop centre for information and technical support, with capacity development activities, regional networking facilitation and knowledge dissemination on climate change mitigation and adaptation techniques as its primary functions.

Deputy Executive Director, Dr. Natarika Wayuparb Nitiphon,



Dr. Natarika Wayuparb Nitiphon

The CITC is the region's first climate change training centre, and is unique in its hands-on approach and customised training courses, in addition to an emphasis on "training the trainers". This allows the organisation's target groups — including climate change mitigation / adaptation-related government agencies, academic institutions, private companies as well as the general public — to be trained by those most familiar with their specific needs and situations.

Because of its geographic characteristics and high proportion of developing nations, South-east Asia is among the world's regions most severely impacted by climate change. This is why the CITC does not limit its work to Thailand, but actively encourages collaboration and participation from ASEAN countries.

Through such regional cooperation, the CITC hopes to promote the goal of achieving *low carbon society* status not only in Thailand, but across all of ASEAN's diverse cultures and national interests.

www.tgo.or.th • www.citc.in.th



Appendix 4: ‘เกยตื้นขกลร้า’ (Key Teun Yok Krao), *Thairath* newspaper, 5 November 2015, page 7



Appendix 5: ‘หมีขั้วโลกเคราะห์ร้าย’ (Mee Kua lok Kroa Rai), *Thairath* newspaper, 21 July 2015, page 7





โลกร้อนเสียงท้วมหนัก

●ปารีส-ผลการศึกษาค้นคว้าจากมหาวิทยาลัยรัฐนิวเซกท์เวลส์ ในออสเตรเลียซึ่งตีพิมพ์ลงในวารสาร“เนเจอร์ จีโอไซน์ซ์” เมื่อ 8 มิ.ย. พบว่าท่ามกลางอุณหภูมิโลกที่ร้อนเพิ่มขึ้นส่งผลกระทบต่อไปถึงลักษณะของฝนที่ตกลงมา ซึ่งจะทำให้มีปริมาณน้ำฝนมากขึ้นในช่วงเวลาสั้นๆ จนเกิดภาวะน้ำท่วมฉับพลันและรุนแรง หลังวิเคราะห์จากพายุเกือบ 40,000 ครั้งที่เกิดขึ้นในช่วงระยะเวลา 30 ปีที่ออสเตรเลีย ทั้งนี้ คณะกรรมาธิการว่าด้วยการเปลี่ยนแปลงสภาพอากาศระหว่างรัฐบาล (ไอพีซีซี) เผยถึงแนวโน้มการปล่อยก๊าซคาร์บอน อาจทำให้โลกร้อนขึ้นสูงสุด 4.8 องศาเซลเซียสในอีก 85 ปีข้างหน้า.

รายงานของบริษัทวิจัย “เวอริสค์ เมเปิล-คลรอฟต์” ในอังกฤษ เผยแพร่เมื่อ 28 ต.ค. ชี้ว่า อุณหภูมิและความชื้นที่สูงขึ้นเนื่องจากสภาพอากาศโลกเปลี่ยนแปลงจะทำให้มีวัน “ความเครียดจากความร้อน” ที่ไม่ปลอดภัยเพิ่มขึ้นในเอเชียตะวันออกเฉียงใต้ส่งผลให้ “ผลผลิตภาพ” หรือสมรรถนะในการผลิตลดลง โดยใน 30 ปีข้างหน้า “ความสามารถด้านการทำงาน” ของผู้คนอาจลดลงถึง 16% เพราะความเครียดจากความร้อน ซึ่งอาจทำให้

เหตุโลกร้อนอีก 30 ปี ประสิทธิภาพงานหกด

ผู้คนขาดงานมากขึ้น เนื่องจากวิงเวียนศีรษะ เมื่อยล้า คลื่นเหียนอาเจียน หรือถึงขั้นเสียชีวิต นอกจากนี้ ภายในปี 2588 “ผลผลิตภาพ” จะลดลงมากที่สุดในสิงคโปร์และมาเลเซีย 25% และ 24% ตามลำดับจากระดับปัจจุบัน ส่วนอินโดนีเซียจะลดลง 21% กัมพูชาและฟิลิปปินส์ 16% ไทยและเวียดนาม 12% ขณะที่วันความเครียดจากความร้อนในสิงคโปร์และมาเลเซียจะเพิ่มขึ้นเป็น 36.4 วัน จากปัจจุบันที่ 33.5 และ 33.8 วัน ตามลำดับ ส่วนอินโดนีเซียจะเพิ่มจาก 30.3 เป็น 35.5 วัน ฟิลิปปินส์จาก 27.6 เป็น 33.7 วัน.



จนเพิ่มเพราะ โลกร้อน

●วอชิงตัน-รายงานของธนาคารโลก
ระบุผลกระทบจากสภาพอากาศโลกร้อนจะ
ส่งผลถึงเป้าหมายของสหประชาชาติลดความ
ยากจนของพลเมืองโลก ทั้งยังผลักดันให้
ชาวโลกไปสู่ความยากจนอีกมากกว่า 100
ล้านคนสืบเนื่องจากสภาพอากาศโลกเปลี่ยน
แปลงอย่างรวดเร็ว ทั้งกระตุ้นความร้อน
เกิดความแห้งแล้งและเกิดภัยน้ำท่วมดินถล่ม
บ่อยครั้งมากขึ้น นำไปสู่สถานการณ์ราคา
อาหารโลกแพงขึ้น คาดว่าภายในปี 2573
ราคาพืชผลการเกษตรแพงขึ้นเฉลี่ย 5
เปอร์เซ็นต์ และแพงขึ้นเฉลี่ย 30 เปอร์เซ็นต์
ภายในปี 2623.

195ชาติลงนาม คุดอญภูมิโลก เพิ่มต่ำกว่า'1.5'

195 ประเทศได้ข้อตกลงลดโลกร้อน จำกัดอุณหภูมิโลกเพิ่มขึ้นน้อยกว่า 2 องศาเทียบกับช่วงปฏิวัติอุตสาหกรรม พร้อมช่วยเหลือประเทศกำลังพัฒนารับมือโลกร้อนปีละ 100,000 ล้านดอลลาร์

ผู้เจรจาจาก 195 ประเทศบรรลุข้อตกลงลดโลกร้อนระหว่างการเจรจาที่กรุงปารีส ข้อตกลงฉบับนี้ถือเป็นการยุติการถกเถียงที่มีมานานหลายสิบปีระหว่างประเทศร่ำรวยกับประเทศยากจนเกี่ยวกับการดำเนินการลดโลกร้อนและรับมือกับสภาพภูมิอากาศที่เปลี่ยนไป

โดยบรรดาผู้นำโลกและนักวิเคราะห์ระบุว่าข้อตกลงนี้มีความสำคัญในการจำกัดอุณหภูมิโลกไม่ให้เพิ่มขึ้นมากนัก อันจะช่วยบรรเทาผลกระทบจากภาวะโลกร้อน เพราะหากไม่รีบลงมือแก้ไขอย่างรวดเร็วมนุษยชาติจะเผชิญสภาพอากาศรุนแรง

อ่านต่อหน้า > 13

ต่อจากหน้า > 16

: 195ชาติ

ไม่ว่าจะเป็นภัยแล้ง น้ำท่วม พายุ และระดับน้ำทะเลที่สูงขึ้นอันจะทำให้เกาะหลายแห่งจม

น้ำเช่นเดียวกับเมืองตามชายฝั่ง นายบารัก โอบามา ประธานาธิบดีสหรัฐ กล่าวว่า ข้อตกลงปารีสเป็นการวางกรอบในการแก้ไขวิกฤติโลกร้อน ด้านนางแองเกลา แมร์เคิล นายกรัฐมนตรีเยอรมนี กล่าวว่า ข้อตกลงปารีสถือเป็นจุดเปลี่ยนในนโยบายภูมิอากาศ

ประเด็นที่มีการถกเถียงกันคือลดหรือเลิกการใช้ถ่านหิน น้ำมัน และก๊าซ อันก่อให้เกิดก๊าซเรือนกระจก อันเป็นต้นเหตุของโลกร้อน ซึ่งการยุติวงจรแห่งความชั่วร้ายนี้หมายถึงการหันไปใช้แหล่งพลังงาน

ที่สะอาด อย่างแสงอาทิตย์และลม รวมถึงเพิ่มความมีประสิทธิภาพในการใช้พลังงาน ขณะที่บางประเทศใช้พลังงานนิวเคลียร์ซึ่งไม่ปล่อยก๊าซเรือนกระจก

ข้อตกลงปารีสกำหนดเป้าหมายของการจำกัดให้อุณหภูมิโลกเพิ่มขึ้นน้อยกว่า 2 องศา เทียบกับช่วงปฏิวัติอุตสาหกรรม และหากเป็นไปได้อุณหภูมิน่าจะเพิ่มขึ้นน้อยกว่า 1.5 องศา ซึ่งการไปสู่เป้าหมายนี้ได้ก็หมายความว่า การปล่อยเรือนกระจกจะต้องถึงระดับสูงสุดโดยเร็ว จากนั้นก็ลดปริมาณการปล่อยก๊าซเรือนกระจกอย่างรวดเร็ว

นักอนุรักษ์สิ่งแวดล้อมบางคนมองว่า ข้อตกลงปารีสถือเป็นจุดเปลี่ยน หรือคาดว่าจะการตั้งเป้าหมายจำกัดอุณหภูมิโลกให้เพิ่มขึ้น 1.5 องศา เป็นเหมือนจุดจบของอุตสาหกรรมน้ำมัน โดยนายคูมี ในดู ผู้อำนวยการกรีนพีซอินเตอร์เนชันแนลกล่าวว่า ตัวเลข 1.5 องศา และการตั้งเป้าหมายใหม่ของการไม่ปล่อยก๊าซเรือนกระจกเลยในช่วงครึ่งหลังของศตวรรษนี้ จะก่อให้เกิดความวิตกในหมู่ผู้บริหารบริษัทน้ำมัน

และประเทศที่ส่งออกน้ำมัน

ทั้งนี้ประเทศกำลังพัฒนายืนยันให้ประเทศร่ำรวย แบกภาระของการแก้ปัญหาโลกร้อน เพราะเป็นผู้ปล่อยก๊าซเรือนส่วนใหญ่ออกมาตั้งแต่ยุคปฏิวัติอุตสาหกรรม แต่สหรัฐกับบรรดาประเทศร่ำรวยแย้งว่าประเทศตลาดเกิดใหม่ต้องลงมือทำเช่นกัน เพราะปล่อยก๊าซเรือนกระจกประมาณครึ่งหนึ่งในปัจจุบัน ดังนั้นจึงต้องรับผิดชอบต่อการทำให้โลกร้อนในอนาคต

ในประเด็นการเงินนั้น ประเทศพัฒนาแล้วเห็นพ้องที่จะกันเงินอย่างน้อยปีละ 100,000 ล้านดอลลาร์ หรือประมาณ 3.59 ล้านล้านบาท ตั้งแต่ปี 2563 เพื่อช่วยเหลือประเทศกำลังพัฒนา แต่ประเด็นนี้ไม่มีข้อผูกพันทางกฎหมายหลังจากสหรัฐคัดค้าน

ก่อนการหารือนั้น ประเทศส่วนใหญ่ยืนยันแผนการอย่างสมัครใจเพื่อลดการปล่อยก๊าซตั้งแต่ปี 2563 อันเป็นการบรรณาการสำคัญสำหรับการเจรจา และหลังจากการเจรจาแล้ว ข้อตกลงระบุให้มีการทบทวนแผนการที่แต่ละประเทศนำเสนอมากเป็นระยะเพื่อดูว่าทำได้ตามเป้าหมายหรือไม่ เริ่มตั้งแต่ปี 2566

ระหว่างการประชุมนั้น บรรดาประเทศที่ปราศบางต่อการเปลี่ยนแปลงของภูมิอากาศ ล็อบบีย่างหนักให้จำกัดการเพิ่มขึ้นของอุณหภูมิที่ 1.5 องศา ขณะที่ประเทศที่ปล่อยก๊าซในระดับสูงอย่างจีน อินเดีย และประเทศผู้ผลิตน้ำมันอย่างซาอุดีอาระเบีย ออกมาให้จำกัดที่ 2 องศา นายลีโอ เจน หัว ผู้เจรจาของจีน กล่าวว่า ข้อตกลงปารีสไม่สมบูรณ์แบบ แต่ก็ไม่ได้เป็นอุปสรรคต่อการก้าวเดินไปข้างหน้า และถือเป็นข่าวดีสำหรับทุกคน

นายฌอง จูเซล นักวิทยาศาสตร์ฝรั่งเศส กล่าวว่า ในความเป็นจริงแล้วการจำกัดการเพิ่มขึ้นของอุณหภูมิให้อยู่ที่ 1.5 องศาเป็นเพียงความฝันที่คงไม่เป็นจริง พร้อมแสดงความผิดหวังที่ไม่มีกรวางแผนลงมือทำอะไรช่วงก่อนปี 2563 ทั้งที่หากมีมาตรการแล้ว น่าจะพอช่วยบรรเทาโลกร้อนได้

ไทยร่วมขบวนการลดก๊าซเรือนกระจก 20-25%

ไทยประกาศลดก๊าซเรือนกระจกภายใน พ.ศ.2573 **ขั้นต่ำ 20% สูงสุด 25%**



การประชุม วิทยาศาสตร์รอบอนุสัญญาสหประชาชาติว่าด้วยการเปลี่ยนแปลงสภาพภูมิอากาศ สมัยที่ 21 (COP-21) และการประชุมรัฐภาคีพิธีสารเกียวโต สมัยที่ 11 ที่กรุงปารีส ประเทศฝรั่งเศส ที่เพิ่งเสร็จสิ้นไปเมื่อ 11 ธันวาคม ที่ผ่านมา ถือเป็นก้าวอย่างครั้งสำคัญของชาติสมาชิกจำนวน 195 ชาติกว่า 50,000 คนที่เดินทางไปประกาศ และกำหนดข้อตกลงภายใน ปี.ศ.2020 หรือ พ.ศ. 2563 เพื่อลดการปล่อยก๊าซเรือนกระจกแก้ปัญหาภาวะโลกร้อน

สำหรับประเทศไทย พลเอกประยุทธ์ จันทร์โอชา นายกรัฐมนตรี ในฐานะตัวแทนของรัฐบาลไทย กล่าวถ้อยแถลงต่อที่ประชุม ซึ่งมีนัยสำคัญมาก

“ผมมาเพื่อแสดงเจตนารมณ์แน่วแน่ของประเทศไทย ในการผลักดันเจรจาข้อตกลงด้านการเปลี่ยนแปลงสภาพภูมิอากาศฉบับใหม่ให้บรรลุเกิดผล

เป็นรูปธรรม” เป็นคำสัญญาของรัฐบาลไทยต่อเวทีโลกครั้งประวัติศาสตร์

เขา ย้ำอีกว่า สำหรับประเทศไทยได้จัดทำแผนเพื่อลดก๊าซเรือนกระจกให้ได้ถึง 20-25 % ภายในปี 2030 หรือพ.ศ. 2573 โดยลดใช้พลังงานจากฟอสซิล และใช้พลังงานทดแทนที่เป็นมิตรต่อสิ่งแวดล้อม เช่น การใช้รถยนต์พลังงานไฮบริด ใช้ระบบการใช้ไฟฟ้า การเพิ่มสัดส่วนระบบการขนส่งมวลชนมาใช้งานและระบบราง พลังงานฟ้าจากขยะ เพิ่มสัดส่วนการใช้พลังงานทดแทนในแผนพัฒนากำลังผลิตไฟฟ้าของประเทศไทย (พีดีพี) การป้องกันกรบรุกป่า การปลูกป่าในระดับกลุ่มอาเซียน รวมทั้งป้องกันปัญหาหมอกควันอาเซียนให้เหลือศูนย์

รวมทั้งแผนบริหารจัดการน้ำ ที่สำคัญให้นำหลักปรัชญาเศรษฐกิจพอเพียงของพระบาทสมเด็จพระเจ้าอยู่หัวที่ทรงพระราชทานใช้มากกว่า 50 ปีในลักษณะของประชารัฐ คือ ความร่วมมือระหว่างภาครัฐ เอกชน และภาคประชาชน ถือเป็นหลักการสำคัญที่จะทำให้บรรลุวาระแผนการพัฒนาอย่างยั่งยืนในปี.ศ. 2030

นอกจากนี้ในฐานะที่ประเทศไทยเป็นประธาน





กลุ่มประเทศจี 77 จึงเป็นสะพานเชื่อมให้ประเทศภายในกลุ่ม ร่วมกันลดก๊าซเรือนกระจก เพื่อแก้ปัญหาภาวะโลกร้อน

เกษมสันต์ จิณณวาโส ปลัดกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม (ทส.) ขยายความว่า เนื้อหาสำคัญ คือข้อสรุปของไทยเกี่ยวกับตัวเลขการลดก๊าซเรือนกระจก ภายในพ.ศ. 2573 หรืออีก 15 ปีข้างหน้า โดยกำหนดการลดอัตราขั้นต่ำ 20 % และสูงสุด 25 %

“หากถามถึงความเป็นไปได้ในไทยจะใช้ทั้งวิธีการปรับตัว และดำเนินการมาตรการลดการ

ปล่อยก๊าซเรือนกระจก”

ในภาคพลังงาน จะเน้นเรื่องส่งเสริมการใช้พลังงานหมุนเวียน และการรับรองแผนพัฒนาพลังงาน ซึ่งจะช่วยลดการปล่อยก๊าซเรือนกระจกด้วยการประหยัดพลังงานและการนำเทคโนโลยีพลังงานหมุนเวียนมาใช้

ขณะที่ในภาคการขนส่ง ประเทศไทยกำลังดำเนินโครงการก่อสร้างระบบการขนส่งมวลชน เช่น เส้นทางรถไฟฟ้าสายความเร็วสูง 10 เส้นทาง (MRT) รวมทั้งการก่อสร้างระบบรถไฟฟ้ารางคู่ และ

การขยาย เครือข่ายทางรถไฟเชื่อมต่อประเทศเพื่อนบ้าน นอกเหนือจากโครงการข้างต้น ประเทศไทย ยังให้ความสำคัญกับการส่งเสริมตลาดคาร์บอน แบบสมัครใจในภาคอุตสาหกรรม รวมทั้งเห็นความสำคัญของการเพิ่มพื้นที่ป่าไม้ และมีเป้าหมายเพิ่มพื้นที่ป่าไม้ทั่วประเทศ และความตั้งใจที่จะสนับสนุนให้การประชุมครั้งนี้สามารถบรรลุข้อตกลงเรื่องการเปลี่ยนแปลงสภาพภูมิอากาศ

เขา บอกอีกว่า ขณะที่ 10 ชาติประเทศอาเซียน ได้มีการออกแถลงการณ์ร่วมอาเซียนด้านการเปลี่ยนแปลงสภาพภูมิอากาศ เพื่อเรียกร้องให้ภาคีสมาชิกรับรองข้อตกลงใหม่ที่มีความสมดุล และมีผลผูกพันทางกฎหมาย ภายใต้อนุสัญญาโลกร้อน โดยการตัดสินใจเกี่ยวกับตัวเลขการลดก๊าซเรือนกระจกก่อนปีค.ศ. 2020 เพื่อไม่ให้อุณหภูมิโลกสูงเกิน 2 องศาเซลเซียส โดยเฉพาะภาคีสมาชิกที่ยังไม่จัดส่งข้อเสนอการมีส่วนร่วมลดก๊าซเรือนกระจกควรต้องเร่งดำเนินการให้แล้วเสร็จ นอกจากนี้ในแถลงการณ์ร่วมอาเซียน ยังระบุถึงข้อเรียกร้องให้ประเทศพัฒนาแล้วขยายความร่วมมือด้านการพัฒนาที่ยั่งยืนกับประเทศที่กำลังพัฒนา การปรับตัวลดปัญหาและสนับสนุนเงินภายใต้กองทุนอากาศสีเขียวต่อไป

การประกาศเจตนารมณ์ที่จะเป็นส่วนหนึ่งของโลก ในการลดภาวะโลกร้อน ทำให้ประเทศไทยได้รับคำชื่นชมจากเวทีโลก ส่วนการปฏิบัติได้จริงภายใต้กรอบที่ไทยเสนอไปนั้น คงเป็นเรื่องที่ต้องติดตาม....



**เมื่อมีข้อตกลงปารีส
ถือเป็นการบังคับ
ให้ไทยต้อง
เดินตามแผน
เพราะเราจะถูก
ตรวจสอบจาก
เวทีโลก**

บันทึกรุส เศรษฐกิจโตม



ข้อตกลงปารีส เส้นทางร่วมลดโลกร้อน

บันฑูร เศรษฐศิริโรตม์ ผู้อำนวยการสถาบันธรรมรัฐเพื่อการพัฒนาสังคมและสิ่งแวดล้อม สรุปข้อมูลจากผลการประชุม COP-21 ที่ใช้เวลามากกว่า 2 สัปดาห์ว่าที่ประชุมร่วมกัน บรรลุข้อตกลงโลกร้อนฉบับใหม่ เรียกว่า "ข้อตกลงปารีส" เพื่อตั้งเป้าหมายจำกัดการเพิ่มขึ้นของอุณหภูมิโลกเฉลี่ยไม่เกิน 2 องศาเซลเซียสสำหรับประเทศไทย ข้อตกลงฉบับนี้มีผลต่อการกำหนดทิศทางการพัฒนาแบบคาร์บอนต่ำมากขึ้น และมีกติกาบังคับให้ต้องเป็นไปตามข้อผูกพันที่ตกลงให้แต่ละประเทศส่งรายละเอียดการลดก๊าซเรือนกระจกให้ได้เพื่อชะลอการเพิ่มขึ้นของอุณหภูมิโลก และต้องทบทวนตัวเลขสัดส่วนการลดก๊าซทุก ๆ 5 ปี เพื่อดูว่าแต่ละประเทศทำตามเงื่อนไขหรือไม่อย่างไร

โดยไทยประกาศตัวเลข 20-25 % ในอีก 15 ปีข้างหน้าเป็นตัวเลขฐานที่ได้จากการใช้แผนพลังงานทดแทนเพิ่มขึ้น และเพิ่มประสิทธิภาพพลังงานถึงแม้ไม่มีข้อตกลงนี้ก็ถือเป็นตัวเลขที่ "เซฟ" ที่สุดแล้ว

"เมื่อมีข้อตกลงปารีส ถือเป็นการบังคับให้ไทยต้องเดินตามแผน เพราะเราจะถูกตรวจสอบจากเวทีโลก หากทำไม่ได้จะมีผลต่อเวทีการยอมรับ แรงกดดันทางมาตรการการค้า และสิ่งแวดล้อม ดังนั้นแรงกดดันนี้จะป็นส่วนที่ทำให้เราต้องเร่งปรับตัว" 

Thai-IPCC



ทนทางสู่โลกร้อน



ปฏิกิริยาตอบกลับของ พลเอกประยุทธ์ จันทร์โอชา นายกรัฐมนตรีภายหลังเดินทาง กลับจากการประชุมว่าด้วยการ เปลี่ยนแปลงสภาพภูมิอากาศที่กรุงปารีส ประเทศฝรั่งเศส เมื่อต้นเดือนธันวาคม ที่ผ่านมา เป็นคำสั่งให้หน่วยงานที่ เกี่ยวข้องทำการศึกษาและกำหนด ทิศทางของประเทศไทยเรื่องการปล่อย ก๊าซเรือนกระจกให้สอดคล้องกับนโยบาย ของอนุสัญญาสหประชาชาติว่าด้วย

การเปลี่ยนแปลงสภาพภูมิอากาศ (UNFCCC) และ การประชุมรัฐภาคี กรอบอนุสัญญาสหประชาชาติว่าด้วย การเปลี่ยนแปลงสภาพภูมิอากาศ (COP) ถือเป็นแรงเหวี่ยงให้ทุกภาคส่วนต้องขยับ อย่างเร่งด่วน

องค์การบริหารจัดการก๊าซ เรือนกระจก (องค์การมหาชน) หรือ อบก. เป็นอีกหนึ่งหน่วยงานที่ได้รับ แรงเหวี่ยงนี้ ได้ตั้งคณะทำงานและ เชิญนักวิชาการร่วมเป็นคณะที่ปรึกษา จัดทำโรดแมปดำเนินงานด้าน

การเปลี่ยนแปลงภูมิอากาศของ ประเทศไทย โดยหลักการเบื้องต้น เสนอให้มีหน่วยประสานงานกลาง ขึ้นตรงกับนายกรัฐมนตรี หรือ สำนักนายกรัฐมนตรี และที่สำคัญ ต้องไม่สังกัดกระทรวงใดกระทรวง หนึ่ง เพื่อความคล่องตัวในการบริหาร จัดการและการประสานงาน

“ประเด็นเรื่องโลกร้อน หรือการ เปลี่ยนแปลงภูมิอากาศล้วนส่งผลกระทบต่อทุกกระทรวง จึงต้องมีหน่วยงาน กลางทำหน้าที่ประสานงาน แต่ทุกวันนี้



หากอุณหภูมิเพิ่ม 4 องศา ระบบนิเวศโลกจะล่มสลาย

ไทยจำเป็นต้องปฏิรูปโครงสร้างการดำเนินงานด้าน climate change โดยอ้างอิงโมเดลของ UN

เรื่องโลกร้อนเป็นบทบาทของสำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม (สผ.) และ อบก. ซึ่งต่างมีขีดจำกัดของตนเอง” กัณฑ์ริย์ บุญประกอบ คณะที่ปรึกษา อบก. จากคณะวิทยาศาสตร์ มหาวิทยาลัยรามคำแหง เสนออีกว่า

ไทยควรปฏิรูปโครงสร้างการดำเนินงานด้าน climate change โดยอ้างอิงโมเดลของสหประชาชาติ ที่มาจากคณะกรรมการระหว่างรัฐบาลว่าด้วยการเปลี่ยนแปลงสภาพภูมิอากาศ (IPCC) ฝ่ายข้อมูลความรู้ UNFCCC ฝ่ายนโยบาย และ COP ฝ่ายปฏิบัติ เพราะไทยต้องร่วมประชุมกับหน่วยงานเหล่านี้ ทำให้ต้องอ้างอิงข้อมูลของ IPCC กัณฑ์ริย์ ระบุว่า ข้อมูลอยู่บนพื้นฐานทางวิชาการที่มาจากการทบทวนรายงานหลายพันชิ้นเกี่ยวกับภาวะโลกร้อน และตีพิมพ์ในสิ่งพิมพ์ที่ผ่านการตรวจสอบโดยผู้เชี่ยวชาญแล้ว

โดยแบ่งข้อมูลออกเป็น 3 กรอบหลัก ประกอบด้วย 1.การประเมินแง่มุมทางวิทยาศาสตร์ของระบบภูมิอากาศและภาวะโลกร้อน เช่น ภาวะโลกร้อนกำลังเกิดขึ้นจริงหรือไม่ ทำให้เกิดขึ้น และ เกิดขึ้นเร็วมากเพียงใด 2. การประเมินผลกระทบทางบวกและลบ รวมถึงทางเลือกในการปรับตัว 3.การประเมินทางเลือกในการจำกัดการปล่อย

ก๊าซเรือนกระจกและการลดความรุนแรงของภาวะโลกร้อน

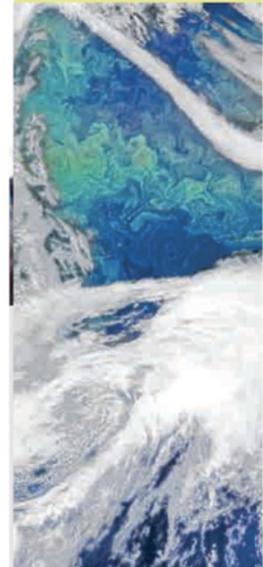
ดังนั้นทั้ง 3 ประเด็นหลักนี้ จึงเสมือนโรดแมพทิศทางการวิจัยด้านการเปลี่ยนแปลงภูมิอากาศของประเทศต่างๆ เพียงแต่บริบทปลีกย่อยจะแตกต่างกันขึ้นอยู่กับนโยบายของประเทศ สภาพภูมิอากาศเฉพาะถิ่น และศักยภาพทางการวิจัย

ยกตัวอย่างประเทศไทย ซึ่งหลายสำนักพยายามค้นหาคำตอบว่า ในอนาคตอีก 30 หรือ 50 ปี อุณหภูมิของแต่ละภูมิภาคจะเป็นเท่าใด และสภาพภูมิอากาศจะเปลี่ยนไปอย่างไรผ่านการสนับสนุนงานวิจัยโมเดลพยากรณ์ภูมิอากาศในอนาคต

คำตอบเหล่านี้หากย้อนไป 20 ปีที่แล้ว อาจเป็นเป็นไปได้ยาก เพราะมหาวิทยาลัยต่างๆ ต้องอาศัยซูเปอร์



คอมพิวเตอร์วิเคราะห์ประมวลผล อีกทั้งต้องใช้งบวิจัยค่อนข้างมาก เกินกำลังขององค์กรทุนวิจัย และมหาวิทยาลัย



แต่ปัจจุบันสถานการณ์ในประเทศไทยเปลี่ยนไป โดยเมื่อเร็วๆ นี้ สำนักงานกองทุนสนับสนุนการวิจัย (สกว.) ลงนามร่วมกับมหาวิทยาลัยรามคำแหง สนับสนุนการวิจัยพัฒนาแบบจำลองภูมิอากาศในอนาคต

“ภาวะโลกร้อนเป็นเรื่องนโยบายทางวิทยาศาสตร์ ที่ต้องการความรู้ที่เข้มแข็งมาสนับสนุน จึงจะสามารถทำได้ อย่างมีประสิทธิภาพ ซึ่งประเทศไทยถือว่าอ่อนแอมากในด้านนี้ และมักใช้ความรู้สึกเป็นตัวกำหนดนโยบายโดยไม่มีข้อมูลวิชาการสนับสนุน”

มาถึงความเคลื่อนไหวในเวทีประชุมว่าด้วยโลกร้อนที่กรุงปารีสที่เพิ่งผ่านไป ที่ได้หารือกันถึงแนวทางการจำกัดอุณหภูมิจะต้องเพิ่มไม่เกิน 2 องศาเซลเซียส อนาคตอันตรงที่มนุษย์ไม่ควรก้าวข้ามไป

นักวิชาการ มหาวิทยาลัยรามคำแหง อธิบายต่อว่า เป้าหมายนี้ ฝ่ายนโยบาย UNFCCC ได้มาจากฝ่ายข้อมูล IPCC แล้วส่งต่อให้ฝ่ายปฏิบัติ

COP นำไปเจรจาต่อในที่ประชุม อันเนื่องจากข้อมูลที่พบว่า อุณหภูมิเพิ่มขึ้นน้อยกว่า 1 องศาเซลเซียส ผลที่ตามมาคือ 30-40% ของความหลากหลายทางชีวภาพอาจจะสูญพันธุ์ หากเพิ่ม 4 องศาเซลเซียส ระบบนิเวศจะล่มสลายเกิดการสูญพันธุ์ทั่วโลก

“นี่คือข้อมูลที่ IPCC ส่งให้ฝ่ายนโยบาย ไปพิจารณาว่าจะยอมให้อุณหภูมิเพิ่มได้เท่าใด ทุกประเทศก็ตกลงกันว่าจะไม่ให้เพิ่มเกิน 2 องศาเซลเซียส หมายความว่า ประเทศใดจะลดการผลิตและปล่อยก๊าซเรือนกระจกเท่าใดต้องมาพิจารณากัน แต่โดยรวมแล้วประเทศพัฒนาแล้วต้องลดมากกว่า จึงเป็นหน้าที่ของ COP ในการต่อรองควบคุมดูแลให้การปฏิบัติเป็นไปตามเงื่อนไขที่ได้ ตกลงร่วมกัน

ทั้งนี้จากรายงานของ IPCC ระบุตั้งแต่เริ่มแรก แสดงความกังวลต่อกลุ่มประเทศกำลังพัฒนา ที่ได้รับผลกระทบอย่างเด่นชัดจากภาวะโลกร้อน ขณะเดียวกันก็ขาดองค์ความรู้ที่จะช่วยให้เกิดการปรับตัว รวมถึงขาดการเตรียมความพร้อมอย่างจริงจัง

“กรอบการวิจัยของไทยเราก็ต้องมาศึกษาอย่างเข้มข้นถึงผลกระทบจากอุณหภูมิที่เพิ่มขึ้น และต้องครอบคลุมทุกด้านทั้งด้านแหล่งน้ำ ระบบนิเวศ



ความมั่นคงด้านอาหาร พื้นที่ชายฝั่งและสุขภาพอนามัย” นักวิจัยกล่าว

สหรัฐอเมริกาแม้จะเป็นอันดับต้นๆ ของโลกที่ปล่อยก๊าซเรือนกระจก แต่ได้ศึกษาเตรียมพร้อมในเรื่องผลกระทบและการปรับตัว มีการใช้แบบจำลองศึกษาระดับพื้นที่ว่าอุณหภูมิจะเพิ่มขึ้นหรือลดลงเท่าใด แล้วผลกระทบที่ตามมาคืออะไร

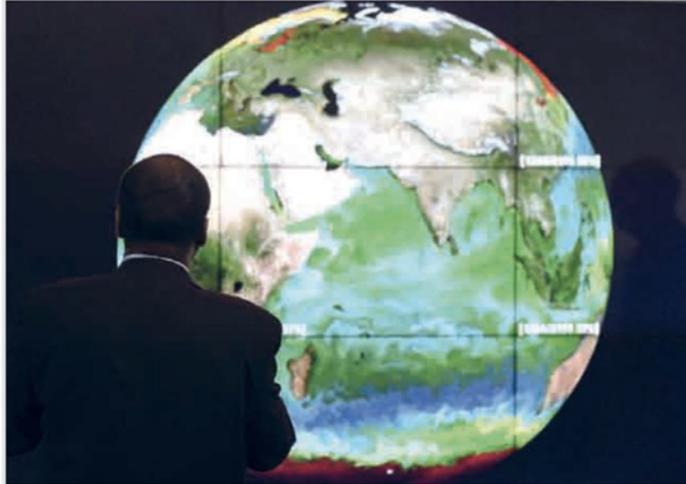
เช่น แคลิฟอร์เนียทางตอนใต้ แหล่งปลูกองุ่น ป้อนอุตสาหกรรมไวน์ ตอนนี้หน่วยงานในพื้นที่ได้ศึกษาเตรียมพร้อมด้านการปรับตัว และเผยแพร่เป็นทางเลือก มีทั้งขยับขึ้นไปปลูกทางตอนเหนือ การปรับปรุงพันธุ์ให้ทนร้อนได้มากขึ้น และเทคโนโลยีที่จะมารองรับ ทั้งระดับเกษตรกร ภาคอุตสาหกรรม และหน่วยงานท้องถิ่น ต่างเตรียมความพร้อมรองรับการเปลี่ยนแปลงที่จะเกิดในอนาคตอีก 30-50 ปี

มาถึงประเทศไทย กันตริย์ หยิบทุ้งกล่าวร้องไห้ แหล่งผลิตข้าวหอมมะลิเกรตพรีเมียมส่งออกมาเป็นตัวอย่างว่า จำเป็นต้องหาคำตอบเช่นกันว่าจะทำอย่างไรเมื่อสภาพอากาศเปลี่ยนแปลงไป ต้องย้ายพื้นที่ปลูกหรือไม่ หรือจะเปลี่ยนไปปลูกพืชชนิดอื่นทดแทน หากยังต้องการปลูกข้าวเหมือนเดิมก็ต้องวิจัยปรับปรุงพันธุ์ข้าวให้ทนร้อนทนแล้ง รวมถึงการลงทุนสร้างระบบผันน้ำเหล่านี้เป็นเรื่องที่ต้องศึกษา ว่าเป็น

ไปได้หรือไม่และคุ้มเพียงใด ซึ่งต้องเตรียมพร้อมตั้งแต่
บัดนี้ แล้วกำหนดเป็นแผนระยะยาว

จะเห็นได้ว่า เรื่องผลกระทบ ความอ่อนไหว
และการปรับตัว เป็นประเด็นสำคัญอันดับต้น ๆ
ที่ต้องเข้มแข็งมากที่สุด แต่กลับได้รับความสนใจ
น้อยกว่ามาตรการลดก๊าซเรือนกระจก ซึ่งไทย
ปล่อยน้อยมากไม่ถึง 1% ของการปล่อยของโลก
ขณะที่กลุ่มประเทศอุตสาหกรรมปล่อยกันเป็นหลัก
สิบเปอร์เซ็นต์ จึงน่ากังวลกับการหลังทิศของ
หน่วยงานไทย 🇹🇭

วิทยาศาสตร์ หยั่งรู้ฟ้าดินล่วงหน้า



๖ บบจำลองคณิตศาสตร์ พยากรณ์สภาพภูมิอากาศ เปรียบเสมือนไหม้แมชชีน นำไปสู่โลกอนาคต หรือย้อนสู่อดีต เพื่อให้รู้เหตุการณ์ภูมิอากาศในลักษณะต่างๆ เช่น การเพิ่มขึ้นของอุณหภูมิและความแปรปรวนของฝน ล้วนส่งผลกระทบต่อประเทศไทย โดยเฉพาะการผลิตอาหาร และการเกษตรกรรม การแพร่ระบาดของโรคแมลง การเกิดภัยธรรมชาติ และความหลากหลายของสิ่งมีชีวิต ถึงแม้การเปลี่ยนแปลงจะเกิดขึ้นช้าๆ แต่ก็สามารถส่งผลกระทบเนื่องให้เกิดการเปลี่ยนแปลงที่รุนแรงและเกิดความเสียหายในวงกว้างได้ เช่น พายุ ความแห้งแล้ง และน้ำท่วม

สำนักงานกองทุนสนับสนุน

การวิจัย (สกว.) จึงสนับสนุนทุนให้อย่างน้อย 2 มหาวิทยาลัยลงมือสร้างไหม้แมชชีน เพื่อตามหาข้อมูลที่เป็นจริงตามหลักวิทยาศาสตร์เพื่อประเมินผลกระทบ เตรียมพร้อมรับมือการเปลี่ยนแปลงที่จะเกิดขึ้น และเพื่อปรับตัว ตลอดจนป้องกันผลกระทบล่วงหน้า

ชุดแรกเป็นโครงการวิจัยเรื่อง “การเปลี่ยนแปลงสภาพภูมิอากาศ และผลกระทบต่อประเทศไทย” วิจัยการสร้างภาพจำลองการเปลี่ยนแปลงสภาพภูมิอากาศในระยะ 30 ปี ข้างหน้า โดยศึกษาและพัฒนาจากแบบจำลองภูมิอากาศที่มีอยู่หลาย ๆ แบบ ทั้งนี้เพื่อให้ได้แบบจำลองที่ให้ผลการคาดการณ์สภาพภูมิอากาศของประเทศไทยได้อย่างแม่นยำ สำหรับ

ใช้ในการศึกษาผลกระทบในด้านต่างๆ ทั้งการเปลี่ยนแปลงของระบบชายฝั่งและทะเล การเกษตรและป่าไม้ การจัดการน้ำ ภัยพิบัติธรรมชาติ ตลอดจนการหาแนวทางการปรับตัวต่อการเปลี่ยนแปลงสภาพอากาศในอนาคต

กัณฑ์ชัย อธิบายว่า โครงการวิจัยนี้แบ่งเป็น 3 เวิร์ทชั้น ชุดแรกเป็นการศึกษาโดยตั้งสมมติฐานว่าหากคาร์บอนไดออกไซด์เพิ่มขึ้นสองเท่า สภาพภูมิอากาศจะเป็นอย่างไร เป็นการศึกษาง่าย ๆ ที่ตัวแปรไม่ซับซ้อน ชุดสองเป็นการวิจัยที่ละเอียดขึ้นหาคำตอบว่าในอีก 100 ปีข้างหน้าภูมิอากาศจะเป็นอย่างไร ส่วนชุด 3 เป็นการพัฒนาเพิ่มจากเวิร์ทชั้น 2 เพื่อคาดการณ์ข้อมูลภูมิอากาศที่แม่นยำยิ่งขึ้น

งานวิจัยนี้ได้ออกแบบโลกสมมติไว้ 4 รูปแบบ ประกอบด้วย 1.โลกที่เศรษฐกิจอุตสาหกรรมขยายตัวแบบก้าวกระโดด ไม่คำนึงถึงการปล่อยก๊าซเรือนกระจก 2.โลกที่การพัฒนาดำเนินถึงสิ่งแวดล้อมเป็นสำคัญ มีการปล่อยก๊าซเรือนกระจกต่ำ 3.โลกที่พบกันครึ่งทางของสองแบบแรก มีกลไกความร่วมมือและเทคโนโลยีมาสนับสนุน และ 4.โลกที่ใช้เชื้อเพลิงฟอสซิลอย่างเดียวนำไม่มีพลังงานทดแทนจากธรรมชาติ

“เป้าหมายของงานวิจัย เพื่อจะดูว่าก๊าซเรือนกระจกในอนาคตจากแต่ละโมเดลจะเป็นอย่างไร อุณหภูมิเพิ่มเท่าไร และหากต้องการควบคุมไม่ให้เพิ่มเกินกว่า 2 องศาเซลเซียสตามข้อกำหนดของ UNFCCC ต้องใช้โมเดลใด จึงจะเหมาะสมและเป็นที่ยอมรับของทุกภาคส่วน ผลจากการวิจัยก็เพื่อให้ผู้ที่กำกับดูแล

เรื่องนโยบายหรือผลกระทบหยิบไปใช้ประโยชน์ นักวิจัยกล่าว

ส่วนไหม้แมชชีนอีกเครื่องเป็นโมเดลพยากรณ์ฝนรายฤดูของไทย นำทีมโดย **คุณภู คุชวัฒน์** นักวิจัยจากมหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี ซึ่งตั้งเป้าที่จะบอกล่วงหน้าว่าฤดูฝนต่อไปจะเริ่มเมื่อใด และมากน้อย

สร้างโหม่เมซซึน เพื่อประเมิน ผลกระทบ

อย่างไร โดยแบ่งเป็น 5 ระดับจากฝนแล้ง จนถึงฝนมาก อย่างไรก็ตามอันเนื่องจาก เป็นการพยากรณ์จึงไม่สามารถบอกได้ลึก ถึงระดับปริมาณที่เป็นตัวเลข

“ความคืบหน้าขณะนี้อยู่ในระดับ ที่น่าพอใจ เพียงแต่ระบบยังเป็น ต้นแบบ ยังไม่เหมาะสำหรับการใช้งาน ทั่วไป ต้องมีการใส่รายละเอียดข้อมูล

ปัจจัยต่างๆ ที่เกี่ยวข้อง และแปรผลหลาย ชั้นตอน แต่ในอนาคตเชื่อว่าหากมีโอกาสพัฒนา ต่อเนื่อง จะทำให้ระบบใช้งานง่ายขึ้น และอาจจะ เข้าถึงผู้ใช้ทั่วไปก็เป็นได้” ดุษฎีกล่าว

ทั้งนี้โดยปกติการพยากรณ์ลมฝนเป็นรายวัน ก็มีความยากเป็นทุนเดิมอยู่แล้ว และการพยากรณ์ ล่วงหน้าเป็นเดือนจึงยิ่งยากขึ้น ดังนั้นการพยากรณ์ ที่ผ่านมามีเป็นลักษณะหาเปอร์เซ็นต์และ ค่าความผิดปกติ

สำหรับการพยากรณ์ฤดูที่ใช้ มี 3 แบบ ประกอบด้วย 1.การพยากรณ์ด้วยแบบจำลอง ภูมิอากาศ มีการใช้แบบจำลองเชิงคณิตศาสตร์คาด หมายการเปลี่ยนแปลงองค์ประกอบต่าง ๆ ทั้งบรรยากาศ ดิน และน้ำ ซึ่งเป็นวิธีการคาดหมาย ที่เชื่อถือได้ดี แต่การพยากรณ์ทั้งโลกอาจจะ ไม่ครอบคลุมเท่าไรวัน ซึ่งในภาพรวมของโลก ไม่สามารถเจาะจงได้ว่า ประเทศไทยมีฤดูแบบไหน ปัญหาสำคัญของเรา คือ วิธีการนี้ต้องใช้ คอมพิวเตอร์ที่มีสมรรถภาพสูงและมีซอฟต์แวร์ ที่ซับซ้อน ฉะนั้น บ้านเรา จึงยังไม่มีการดำเนินการ ทำได้แค่เพียงพยากรณ์อากาศแบบรายวัน

2.การพยากรณ์ทางสถิติ โดยดูข้อมูลปริมาณ น้ำฝนตั้งแต่อดีตย้อนหลัง 30-50 ปี วิธีการนี้ง่าย เชื่อถือได้ในบางครั้ง เนื่องจากความถูกต้องในการ คาดหมายแปรผันได้มากในแต่ละปี 3.การพยากรณ์ แบบผสมผสาน เป็นการประยุกต์ใช้ข้อดีของ สองแบบแรกร่วมกัน และใช้ผลการพยากรณ์จาก จำลองภูมิอากาศ มาลดขนาดบางส่วน โดยใช้วิธีทาง สถิติ เพื่อพยากรณ์แบบเจาะจงพื้นที่

“สกว.สนับสนุนให้เกิดการวิจัยครั้งนี้ โดยมองถึงผลกระทบของภาวะโลกร้อนต่อมรสุม ของเอเชียอาคเนย์ การแปรผันรายปีของมรสุม ฤดูร้อนของเอเชียใต้ และผลกระทบต่อการ ผลิตปศุสัตว์ของภูมิภาคในจีนและไทย รวมถึง การพัฒนาโปรแกรมการพยากรณ์ฝนรายฤดู สำหรับประเทศไทย”

CLIMATE CHANGE

PM vows to cut emissions at Paris summit

PARITTA WANGKIAT

PARIS: Prime Minister Prayut Chan-ocha pledged at the opening of the United Nations (UN) 21st Conference on Climate Change (COP 21) that Thailand will help reduce fossil fuel use and boost renewable supplies in line with the country's Power Development Plan 2015.

Gen Prayut said land transport must be reduced and rail transport expanded across the country.

Thailand also will implement measures to prevent forest encroachment, ensure better water management and implement

a haze management roadmap, he said.

The prime minister on Monday night (French time) told 150 world leaders and about 4,000 delegates from 195 countries who attended the opening of the meeting about the country's target to help cut greenhouse gas emissions by 20-25% by 2030.

He said Thailand would work with the international community to reduce greenhouse gas emissions. Thailand had thrown its support behind a new universal agreement for a legally binding reduction in greenhouse gas emissions and expected negotiations among countries would be a success.

This agreement will be based on the goal to limit the rise in global temperatures to below 2C.

Each participant country will declare their Intended Nationally Determined Contributors (INDCs) to cut greenhouse gas emissions. More than 180 countries, covering close to 100% of global emissions, have submitted their proposed INDCs to the United Nations Framework Convention on Climate Change.

Gen Prayut said Thailand was aware climate change could cause disasters such as extreme drought, a collapse in food security and declining natural resources.

"Green industries must be started to generate income while cutting greenhouse gas emissions," he said while calling on developed countries to transfer know-how and technology to less developed ones.

US President Barak Obama urged the negotiators to deliver a meaningful deal, because the next generation is watching. UN Secretary-General Ban Ki-Moon called on all leaders to instruct their negotiators to take bold climate action.



Prime Minister Prayut Chan-ocha lays flowers in the Place de la Republique in Paris, in memory of the victims of the Nov 13 terror attacks. PHOTO BY GOVERNMENT HOUSE

Paris deal 'must be binding': Page 8
Opinion: Page 11

SPECIAL REPORT

Critics say emissions vow ‘a pipe dream’

Renewable resources under-used as southern projects and energy import plans forge ahead, writes Paritta Wangkiat

Thailand’s pledge to massively cut carbon emissions by 20-25% from its 2005 levels has been questioned by critics, who regard it as a pipe dream.

The pledge, also known as Thailand’s Intended Nationally Determined Contributions (INDC), was made by Prime Minister Prayut Chan-o-cha at the 21st Conference on Climate Change (COP 21) held in Paris last week.

The Office of the Natural Resources and Environmental Policy and Planning said they were confident Thailand could meet its targets. But according to critics, the main obstacle that will bar Thailand from reaching its ambitious goals is a plan to build two coal-fired power plants — an 800-megawatt plant in Krabi’s Nua Khlong district and a 2,200-megawatt plant in Songkhla’s Thepha district — as stipulated in the Power Development Plan for 2015-2036.

“The PDP is determined to build more power plants to offer business opportunities,” said Santi Choakhaichamnankit, an academic for the Energy Watch Group, who says the state commitment to renewable energy is only lip service.

Though the PDP pledges to increase renewable energy supplies to comprise up to 30% of overall power supplies, replacing gas dependency, the reliance on coal and the country’s high power reserve margin — between 25% to 39% — remain environmental concerns, say activists. In 2012, 73% of Thailand’s emissions came from the energy sector.

The Department of Alternative Energy Development and Efficiency reported that

“ Coal-fired power plants are a must-have

TWARATH SUTABUTR
DIRECTOR FOR ENERGY POLICY AND
PLANNING OFFICE

between January and August 2015, the bulk of Thailand’s carbon emissions were from electricity generation (39%), followed by the industrial sector (28%), transport (26%) and only 8% attributed to residential, commercial and agricultural sectors.

The energy sector is also the largest source of global emissions, mainly driven by fossil fuels that significantly increased global carbon emissions by more than 16-fold between 1900 and 2008.

Twarath Sutabutr, director for the Energy Policy and Planning Office (Eppo) of the Ministry of Energy, dismissed activists’ fears of carbon emissions and the rising reliance on coal.

The PDP aims to reduce gas supplies, the main source of electricity, from 70% to 37% by the end of 2036 while increasing renewable energy supplies from 7% to 20%. But also included in the agenda is a plan to increase power from neighbouring countries from 6% to 15%, and coal imports from 10% to 23%, he said.

According to the Eppo director, the high power reserve margin is based on a projection of risk factors, such as the temporary maintenance shutdown of gas pipelines in Myanmar and the Thai-Malaysian Joint Development Area, which Thailand depends on for gas.

Thailand can no longer rely on gas because its domestic exploitation capacity has peaked, he said, adding that only one source of gas remains — in the Gulf of Thailand, which is claimed by both Thailand and Cambodia, a jurisdictional conflict which has long delayed energy development.

The reserve margin of power will increase to up to 39% of total installed capacity, even though global standards are set at 15%. Critics say this will lead to the construction of unnecessary power plants.

Since early 2015, driven by the current PDP, conflict has flared around the proposed sites for two coal-fired power plants strongly promoted by the Electricity Generating Authority of Thailand (Egat).

“We want to ensure that even if one or two major power plants stop working, power generation in the country is still secure,” he said, adding that southern Thailand still does not have a secure power system because it continues to rely on imported gas for electricity.

The rapid growth of tourism in major cities, such as Phuket and Samui, is the main cause of the reliance on imported electricity, as tourists use four times the electricity that local residents do. “Coal-fired power plants are a must-have and the best solution to secure power demand is to place the plants near the spot power is being used,” Mr Twarath said.

Even though coal supplies increase emissions, the overall greenhouse gas emissions per electric unit will decline due to decreased use of gas supplies, he added.

Combining various energy sources, plus new technologies, will help to reduce carbon dioxide emissions by 37% from the expected emissions in a previous version of the PDP — from 0.506 to 0.319kg of carbon dioxide per kilowatt/hour.

To reduce emissions, other plans are being put in my place, such as the Alternative Energy Development

Plan (AEDP) and the Energy Efficiency Plan (EEP).

Mr Twarath said he was confident the PDP would balance security, the economy and ecology while addressing climate change issues. But he insisted renewable energy is not stable enough for consistent power generation.

Activists disagree. Power demand will increase at a lower rate than previously expected due to the economic slowdown,

said Mr Santi, explaining that the two coal-fired power plants could be suspended without interrupting power security.

The German Federal Institute for Geosciences and Natural Resources estimates there are 1,052 billion tonnes of coal reserves left — equivalent to 134.5 years of global coal output based on 2013 numbers when coal was used to generate over 40% of the world's electricity.

Meanwhile, the International Energy Agency (IEA) predicts Southeast Asia will meet 49% of its energy needs based on coal by 2035, up from 31% in 2011, while the share from gas will drop to 28% from 44%.

Coal will dominate the region's doubled energy consumption, and emissions linked to climate change will also rise, says the IEA.

With the government pushing forward with coal-fired power plants and industrial growth, it is unlikely the PDP will succeed in achieving its goals of sustainability, said Mr Santi.

Decharut Sukkumnoed, Kasetsart University's economics lecturer, said more renewable energy capacity is available than the amount the PDP aims to use.

"A country cannot abolish [the base load of coal-fired power plants] suddenly, but many, including Germany, have gradually shifted their base load power plants to renewable energy sources," he said. "I believe Thailand can do that too. We just need to be open to new options."

Govt feels heat on climate deal

ANALYSIS: Analysts say focus on coal, megaprojects imperils Thai targets under global pact, write Paritta Wangkiat and Apinya Wipatayotin

Thailand still has much to do after the global community agreed to the first universal, legally binding deal to stop global warming and is looking forward to collaborating in next-year's climate talks as a chair of the G77, observers say.

Adopted by the 195 parties to the United Nations Framework Convention on Climate Change (UNFCCC) on Saturday night in Le Bourget near Paris, France, the new climate agreement set a long-term goal to shift to a zero-carbon economy after two weeks of intense negotiations.

The deal also commits all countries to keep a global temperature increase to well below 2 degrees Celsius and to pursue efforts to limit it to 1.5°C.

The deal requires progress reviews every five years. Developed countries agreed to take the lead in mobilising financial support for \$US100 billion a year for developing countries by 2020.

All parties agreed to adopt the historic agreement. However, the reduction of national greenhouse gas emission targets will be based on the individual plans of each country.

According to the UNFCCC, the Intended Nationally Determined Contributions (INDCs) submitted by all countries will be able to limit global temperature rises to 2.7°C above pre-industrial levels.

This is still far from the ambitious targets of 2°C, let alone the 1.5°C that would more effectively prevent severe consequences of climate change.

The agreement sets out a timeline for all countries to return to the table every five years with their own tougher plans. The first is expected to take place in 2020.

Each country will also be required to conduct systems for measuring, reporting and verification (MRV) on progress of their INDCs.

"This will demand more responsibility from Thailand especially when it has to return with a new target every five years," said Prasert Sirinapaporn, director of the Climate Change Management and Coordination Division of the Ministry of Natural Resources and Environment, who was also deputy chief of the Thai delegation at the Paris climate negotiations.

"We will still have more work to do. We pledge to work with all countries and comply with the deal," Mr Prasert told the *Bangkok Post* after adoption of the agreement on Saturday.

Mr Prasert said future work includes a revision of the new tougher target and conducting the MRV, which needs more resources.

Withoon Permwongsacharoen, director of the Mekong-Energy and Ecology Network (MEENet), suggested the Thai government be more sincere about developing renewable energy, aligning with a global push to green energy rather than investing in coal.

Jacques-Chai Chomthongdi, Thailand-based Oxfam's programme campaign and advocacy coordinator, said all parties must realise the time to heal the world is running out and they need to do more to become low carbon societies.

He said it is clear that each country's voluntary proposals to cut greenhouse gas emissions, including Thailand, have not yet produced any tangible results as the proposals will still increase global temperatures by 3.75-3.9°C.

He said countries are lacking in efforts to keep the global temperature increase to well below 2°C.

He said the agreement to fight climate change is still vague as it does not yet clearly state who should reduce which amounts and there is no clear action on how to achieve these goals.

Bantoon Sethasiroj, director at the Good Governance for Social Development and the Environment Institute, said Thailand has proposed reducing greenhouse gas emissions by 25% from current levels, and the energy sector will have to play a key role by incorporating clean technologies.

As Thailand attempts to do its part, Environmental and Natural Resources Minister Surasak Karnjanarat has announced the adoption of the Power Development Plan (PDP) that will increase renewable energy use and strengthen energy efficiency measures to help reduce greenhouse gas emissions.

He pledged Thailand will promote a voluntary-based carbon market in the industrial sector and increase forest areas nationwide.

However, most of the government's policies have been criticised by green activists.

They cited the controversial PDP which will replace gas dependency by increasing renewable energy sources in power generation from 7% currently to 20% — part of which includes mega hydropower — of total energy capacity by 2036.

But coal use will increase from 10% to 25%, possibly putting nine coal-fired power plants into the pipeline, raising concerns about Thailand's ability to achieve its INDC target and its credibility at future rounds of the talks.

Some infrastructure projects are being questioned as the government attempts to introduce Environmental Impact Assessment (EIA) shortcuts to speed up the construction process, overriding local objections.

Still, observers say Paris marked the first instance where 134 countries agreed on adopting a historic international climate agreement.

Tumult in the sea heralds bad times

Thai fishermen are at the forefront of climate change and feeling the effects, writes Paritta Wangkiat

It was supposed to be a sunny day in the summer of 2013, but Sompong Pannoï recalled that a storm abruptly hit the coast of Prachuab Khiri Khan's Khan Kradaï Bay and damaged over 30 boats.

"It doesn't seem to be the sea we used to know," said the 41-year-old fisherman who usually fishes no further than 20km from shore.

Like most fishermen, Mr Sompong knew little about climate change. But in the last five years, they have noticed changes in the sea and weather patterns that have affected their livelihoods.

Irregularities have been witnessed. Exotic marine life has been found in some coastal areas, believed to have come with the change in currents.

The unusually extreme weather, stronger winds and irregular rainfall, sometimes force fishermen to sail further out to sea for the same amount of fish they used to catch.

According to the Department of Fisheries, the export value of coastal fisheries has doubled in the last 20 years but fish catch volumes dropped last year by almost half to about 1.6 million tonnes, valued at 56 billion baht.

For years, overfishing has been solely blamed for the decreasing amount of marine life.

But academics warned climate change should also be taken into account and locals, especially fisherman, should be prepared for the change.

Arpa Wangkiat, a lecturer at Rangsit University's Department of Environmental Engineering, has tracked climate change, and says people in general may be aware of climate change but haven't yet taken action to adapt.

More than 56,000 households, 90% of whom are fishermen, depend exclusively on fisheries, according to the National Statistical Office.

According to the Thailand Research Fund, data collected across the country has found the temperature between 1955 and 2009 increased by 0.96 degrees Celsius.

"Fishermen will be the most vulnerable group," said Ms Arpa, as many depend purely on natural marine resources, without other alternatives.

But few of them, or the authorities, are aware of the severe consequences brought about by climate problems, said Ms Arpa. Educating people to be aware of climate change and to be ready to adapt to it is a priority.

According to the Intergovernmental

Panel on Climate Change's "Climate Change 2014: Impacts, Adaptation and Vulnerability" report, the warmer sea should increase fish catch volumes by up to 70% in high latitude regions but lead to a 60% drop in the tropics and Antarctica.

This highlights the vulnerability of economies in tropical coastal countries.

Sitting in a tropical sea, Thailand's economy is driven partly by exports of fishery products, which held a 1.4% share of gross domestic product in 2014.

Ms Arpa cites the 2013 Rayong oil spill — 50,000 litres leaked during a transfer by PTTGC — to show that fishermen need alternate options for their livelihoods.

The spill was blamed for causing long-term ecological damage and despite PTTGC's clean-up operation, hundreds of fishermen were affected by the contaminated sea.

Only some of them managed to survive after the spill as they had alternative jobs while a large number failed, said the lecturer.

Thon Thamrongnawasawat, an academic at Kasetsart University's Faculty of Fisheries, said much analysis of climate change focuses on the economic aspects, for example, how to cut greenhouse gas emissions in the business sector.

"But educating people to be ready to adapt to the climate change crisis is just as important," he said.

He has monitored the sea and is concerned about a possible repeat of coral bleaching next year as El Nino steps up.

In 2010, the fisheries sector was shaken by warmer sea temperatures that caused 70% of coral in the Andaman Sea to bleach. Large marine habitats, which provide food security, were severely damaged.

According to the Department of Marine and Coastal Resources, sea temperatures rose from 29°C to 30°C just three weeks before the coral bleaching.

The National Oceanic and Atmospheric Administration reported that El Nino — large-scale ocean-atmospheric climate interactions, which are linked to periodic warming of sea surface temperatures across the Pacific ocean — hit Southeast Asia this year, causing extreme droughts and unusual rainfall patterns. It is likely to continue until next year.

"The impact of climate change is manifest, and it's severe. We tried not to link it with climate change, but it actually is," he said.

On the other side of the development

rush, at the heart of a proposed site for the Pak Bara deep seaport in Pak Nam, an ambitious state project to create an international logistics and trade hub, Sanan Machcha, 66, a local fish pier operator and a local Muslim religious leader, has also noticed a change in the sea.

Observing the sea for more than 40 years since he started his business, he says fish catches have plummeted. The sea is warmer, he said, with widespread use of destructive fishing vessels.

While scientific methodology clarifies winds in only two directions, southwest and northeast, fishermen know there are 12 wind passages which have been passed down through unwritten lore.

Beyond the 12 wind passages that Pak Nam fishermen are acquainted with, there is another they have yet to hear much about — the 13th wind passage, called "Ta-Ngala".

Local folklore says it's likely to come from the northwest while combining with all 12 wind passages at once — a kind of extreme wind that will end the world.

"God gives us an abundant sea so the grassroots people can sustain their lives," said Mr Sanan.

"The end of the world might come. But his mercy will remain if we care for the earth."

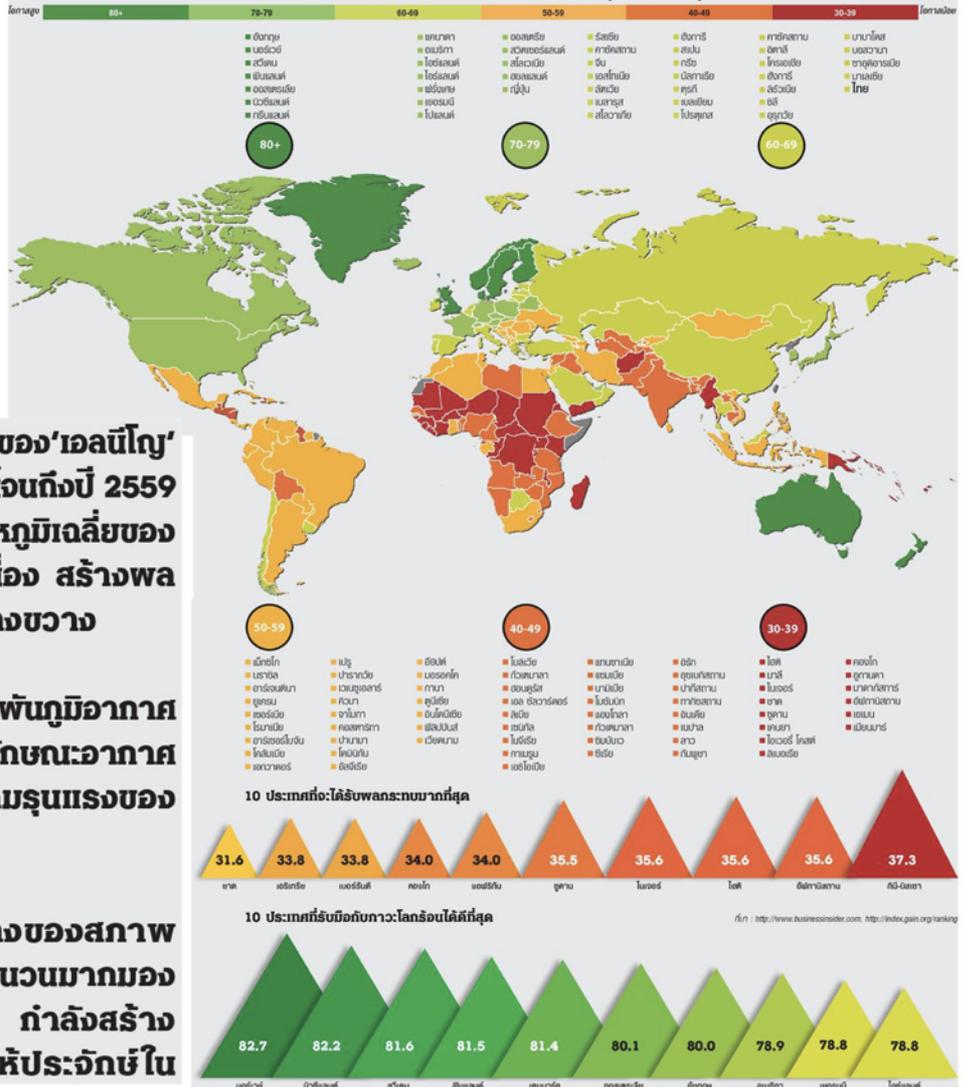
Local fishermen who rely solely on the sea are the most vulnerable and are generally not prepared to tackle the effects of climate change. Increased education and awareness are an urgent priority on the part of authorities, however many fishermen are noticing changes in reduced catch volumes, irregular rainfall and extreme weather events which are negatively affecting their livelihoods. PHOTO COURTESY OF THAI SOCIETY OF ENVIRONMENTAL JOURNALISTS



Change Climate Change

Notre Dame Global Adaptation Index

อันดับประเทศโลการอดจากภาวะโลกร้อน (หน่วย : %)



ความรุนแรงของ 'เอลนีโญ' ที่เกิดขึ้นปีนี้อาจถึงปี 2559 ทอกย้ำด้วยอุณหภูมิเฉลี่ยของโลกที่สูงขึ้นต่อเนื่อง สร้างผลกระทบอย่างกว้างขวาง

บอกถึงความพหุพันภูมิอากาศ กำลังส่งผลต่อลักษณะอากาศทั่วโลก และความรุนแรงของภัยธรรมชาติ

การเปลี่ยนแปลงของสภาพอากาศ ที่คนจำนวนมากมองเป็นเรื่องไกลตัว กำลังสร้างปรากฏการณ์ให้ประจักษ์ใน

**ช่วงชีวิตของมนุษย์ปัจจุบัน
ถึงปริมาณฟืนที่น้อยลงและ
พันแปร ระดับน้ำทะเลที่สูงขึ้น
ผลกระทบถึงต่อพืช สัตว์ และ
มนุษย์ที่อยู่บนโลกในขณะนี้**

**เราจะใช้ชีวิตเดิมเช่นเดิม
ปล่อยให้อุณหภูมิโลกเพิ่มขึ้น
อย่างรวดเร็ว ภัยธรรมชาติ
รุนแรงขึ้น แหล่งผลิตอาหาร
ถดถอยลง หรือจะปรับตัว เพื่อ
ช่วยกันทำให้ความร้ายแรง
ของสถานการณ์เกิดขึ้นช้าลง...
เราจะเลือกหนทางใด?**

ทส.ยกโขยงไปฝรั่งเศส

81คนประชุมโลกร้อน ขอกรม. ‘เกือบ 20 ล้าน’

‘อึ้ง! กระทรวงทรัพยากร เตรียมเสนอ กรม.
ของบเกือบ 20 ล้านบาท ขนผู้บริหารและเจ้าหน้าที่
81 คนจาก 27 หน่วยงานร่วม ★ มีต่อหน้า 12

ทส.ยกโขยง ☆ **ต่อจากหน้า**
ประชุมโลกร้อนที่ประเทศฝรั่งเศส วันที่ 30 พ.ย.-
11 ธ.ค.นี้ เป็นค่าเดินทางค่าที่พัก รวมเบียดเสียด
โดยมี รว.ทรัพยากรฯ เป็นหัวหน้าคณะ พบเดิม
คนร่วมเดินทางมีมากถึง 97 คน แต่ถูกหักทั้ง ด้าน
“เกือบสิ้นดี จินตนาโต” แจงคนไม่เยอะเพราะต้อง
ร่วมประชุมถึง 5 วงแถมต้องเตรียมรับเป็นประธาน
กลุ่ม 77 บวกจีนต่อจากประเทศแอฟริกาใต้

ในขณะที่ภาวะเศรษฐกิจของประเทศกำลัง
ย่ำแย่แต่หน่วยงานภาครัฐกลับเตรียมขนเจ้าหน้าที่
ถึง 81 คนเข้าร่วมประชุมการเปลี่ยนแปลงสภาพภูมิ
อากาศที่กรุงปารีส สาธารณรัฐฝรั่งเศส โดยเมื่อ
วันที่ 15 พ.ย.ผู้สื่อข่าวรายงานจากกระทรวงทรัพยากร
ธรรมชาติและสิ่งแวดล้อม (ทส.) ว่า ในการประชุม
คณะรัฐมนตรี (ครม.) วันที่ 17 พ.ย.นี้ กระทรวง
ทรัพยากรฯ จะเสนอขออนุมัติกรอบทำที่เจรจาของ
ไทย ในการประชุมรัฐภาคีอนุสัญญาสหประชาชาติ
ว่าด้วยการเปลี่ยนแปลงสภาพภูมิอากาศ สมัยที่ 21
และการประชุมรัฐภาคีพิธีสารเกียวโต สมัยที่ 11
ณ กรุงปารีส สาธารณรัฐฝรั่งเศส ระหว่างวันที่ 30
พ.ย.-11 ธ.ค.2558 และองค์ประกอบคณะผู้แทน
ประเทศไทยที่จะเดินทางไปร่วมประชุม จำนวน 81
คน จาก 27 หน่วยงาน อาทิ กระทรวงทรัพยากรฯ ซึ่ง
ถือเป็นหน่วยงานหลักในการเจรจา จำนวน 32 คน

ตามด้วยผู้บริหารระดับสูงอีก 7 คน อาทิ นาย
เกษมสันต์ จินตนาโต ปลัดกระทรวงทรัพยากรฯ
พล.อ.อรุณพร ศิริศักดิ์ เลขานุการ รว.ทรัพยากรฯ
พล.ท.ธรณิศวรี โรจนสุวรรณ และ พล.ท.หญิงกนิษฐา
ธีระเดชพงศ์ คณะทำงาน รว.ทรัพยากรฯ เป็นต้น
รวมเป็น 39 คน ขณะที่หน่วยงานอื่น อาทิ กระทรวง
การต่างประเทศ 10 คน กระทรวงเกษตรและสหกรณ์
2 คน กระทรวงพลังงาน 4 คน กระทรวงวิทยาศาสตร์
และเทคโนโลยี 1 คน กระทรวงสาธารณสุข 3 คน
กระทรวงอุตสาหกรรม 3 คน ส่วนราชการอิสระ
3 คน เป็นต้น โดยมี พล.อ.สุรศักดิ์ กาญจนรัตน์
รว.ทรัพยากรฯ เป็นหัวหน้าคณะผู้แทนประเทศไทย
ผู้สื่อข่าวรายงานว่าแต่เดิมกระทรวงทรัพยากรฯ
จะนำคณะผู้แทนของประเทศไทยที่จะเดินทางไป
ร่วมประชุม ในครั้งนี้ถึง 97 คน แต่เมื่อมีการหักทั้ง
จากผู้ใหญ่ในรัฐบาล ทำให้มีการปรับลดจำนวนผู้
เข้าร่วมประชุมเหลือ 81 คน โดยตัดผู้แทนจาก
กรมป่าไม้ กรมทรัพยากรน้ำ กรมควบคุมมลพิษ
และกรมทรัพยากรทางทะเลและชายฝั่งออกไปแต่
ก็ยังได้รับการวิพากษ์วิจารณ์ค่อนข้างมากกว่า จำนวน
คนที่เดินทางไปร่วมประชุมมากเกินไปเกินความจำเป็น
และทำให้เสียงบประมาณจำนวนมาก เฉพาะค่า
เดินทางไปกลับ ค่าที่พัก ค่าเบียดเสียด ต้องใช้
งบประมาณเกือบ 20 ล้านบาท

ต่อมาผู้สื่อข่าวได้สอบถามไปยังนายเกษมสันต์
จินตนาโต ปลัดกระทรวงทรัพยากรฯ กล่าวว่า การ
ประชุมรัฐภาคีอนุสัญญาสหประชาชาติว่าด้วยการ
เปลี่ยนแปลงสภาพภูมิอากาศ สมัยที่ 21 และการ
ประชุมรัฐภาคีพิธีสารเกียวโต สมัยที่ 11 ที่กรุงปารีส
สาธารณรัฐฝรั่งเศส ถือว่ามีความสำคัญ จึงต้องใช้
เจ้าหน้าที่จำนวนมาก ทั้งร่วมประชุมและจัดนิทรรศการ
แต่ไม่ได้เดินทางไปประชุมพร้อมกันทั้งหมด 81 คน
เช่น พล.อ.สุรศักดิ์ เดินทางไปประชุมวันที่ 5-11 ธ.ค.
ส่วนตนเดินทางไปร่วมประชุมวันที่ 5-10 ธ.ค.หรือ
เจ้าหน้าที่บางคนต้องเดินทางไปกลับถึง 4-5 รอบ
เป็นต้น แต่เวลาจะเสนอให้ ครม.อนุมัติ จะต้องเสนอ
รายชื่อทั้งหมดพร้อมกัน โดยงบประมาณค่าใช้จ่าย
แต่ละหน่วยงานเป็นผู้รับผิดชอบ โดยก่อนหน้าที่มี
จำนวนคนที่เดินทางไปมากกว่านี้ แต่ตัดออกไป
จำนวนหนึ่ง

ปลัดกระทรวงทรัพยากรฯ กล่าวอีกว่า จำนวน
คนที่เข้าร่วมประชุมถือว่าไม่มากเพราะต้องเข้า
ร่วมประชุมในงานดังกล่าวถึง 5 การประชุม เช่น
การประชุมรัฐภาคีอนุสัญญาสหประชาชาติว่าด้วย
การเปลี่ยนแปลงสภาพภูมิอากาศ สมัยที่ 21 การ
ประชุมรัฐภาคีพิธีสารเกียวโต สมัยที่ 11 การประชุม
องค์กรย่อยด้านการดำเนินงานสมัยที่ 43 เป็นต้น
ที่สำคัญการประชุมครั้งนี้ถือว่ามีความสำคัญเพราะ
ประเทศไทยจะต้องเป็นประธานกลุ่ม 77 (G77)
บวกจีน ต่อจากประเทศแอฟริกาใต้ ซึ่งเราจะต้อง
ไปเจรจาและวางกรอบการทำงานเพราะในปี 2559
จะมีการประชุมที่เกี่ยวเนื่องถึง 9 ครั้ง เพราะฉะนั้น
จำนวนคน 70-80 คนที่ไปร่วมประชุมถือว่าไม่มาก

‘ยธ.’เร่งหามาตรการเยียวยา-พิสูจน์ ผลกระทบปมทางคืน ‘ผืนป่า’ 58 พื้นที่

ยธ.เร่งหามาตรการเยียวยา-พิสูจน์สิทธิ ชาวบ้านที่ได้รับผลกระทบจากนโยบายทางคืน ผืนป่า 58 พื้นที่ วอนช่วยขยายแนวช่วย 84 ปี ถูกตั้งข้อหาโค่นต้นยางพารา 71 ต้นเรียกค่าเสียหาย ทำให้โลกร้อน 1.5 ล้าน

พ.ต.อ.ดุสิต อารยวุฒิ รองปลัดกระทรวงยุติธรรม เป็นประธานประชุมแก้ไข ปัญหาชาวบ้านที่ถูกดำเนินคดีอาญาข้อหา บุกรุกป่า ตามที่พล.อ.ดาว์พงษ์ รัตนสุวรรณ รัฐมนตรีว่าการกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม ขอความร่วมมือมายังกระทรวงยุติธรรม(ยธ.) เพื่อช่วยเหลือเยียวยาชาวบ้านที่ได้รับผลกระทบจากคำสั่งคสช.จากนโยบายทางคืน ผืนป่า โดยกลุ่มพี-มูฟ ระบุว่า มีชาวบ้านได้รับผลกระทบจากรัฐ กรณีมีการเข้าไปโค่นต้นยางพาราในพื้นที่ป่าสงวนแห่งชาติอุทยานแห่งชาติ และที่สาธารณประโยชน์ รวม 58 พื้นที่

พ.ต.อ.ดุสิต กล่าวว่า ปัญหาดังกล่าวมีความซับซ้อน จึงขอให้กลุ่มพี-มูฟช่วยรวบรวมรายละเอียดของปัญหาทั้งหมดและแนวทางที่ต้องการให้แก้ไขว่า ต้องการให้ภาครัฐดำเนินการอย่างไร เพราะในส่วนเจ้าหน้าที่ที่กรมป่าไม้ กรมอุทยานฯ มีอำนาจหน้าที่แตกต่างกัน บางส่วนก็ถูกต่อต้านจากชาวบ้าน การใช้ดุลยพินิจของพนักงานเจ้าหน้าที่อาจมีปัญหา หากมีการ

หารือชัดเจนเป็นรายคดีจะทำให้การแก้ปัญหา ยง่ายขึ้นและมีช่องทางในการพิสูจน์สิทธิ เนื่องจาก การดำเนินคดีต้องให้ความเป็นธรรมกับทุกฝ่าย ทั้งรัฐและชาวบ้าน ดังนั้นจึงขอให้กระทรวงทรัพยากรพิสูจน์ภาพถ่ายทางอากาศเพื่อให้เกิด ความชัดเจนเกี่ยวกับผู้ครอบครองทำประโยชน์ ที่แท้จริงว่าชาวบ้านเข้ามาทำกินก่อนประกาศเป็น พื้นที่อนุรักษ์หรือไม่

ด้าน น.ส.สุทธิลักษณ์ ระวีวรรณ รองปลัด กระทรวงทรัพยากรฯ กล่าวว่า ปัญหาการพิสูจน์ สิทธิไม่สามรถทำได้อย่างรวดเร็ว เพราะระบบ ราชการมีขั้นตอน ในส่วนของทรัพย์สินชาวบ้าน ที่ได้รับความเสียหายจากคำสั่งคสช. ยอมรับว่า รัฐบาลไม่มีกองทุนหมุนเวียนเยียวยาได้ทันที เพราะก่อนเยียวยาต้องพิสูจน์ให้ชัดเจนก่อนว่า ชาวบ้านไม่ได้รับความเป็นธรรมจริงและขั้นตอน การเยียวยาจะใช้รูปแบบใด

อย่างไรก็ตาม ยอมรับว่าการบุกรุกพื้นที่ เพื่อปลูกยางพาราของชาวบ้านเกิดขึ้นนานแล้ว และทุกครั้งที่มีการดำเนินการอย่างเข้มงวดก็มัก เกิดปัญหา กรณีที่เกิดขึ้นล่าสุดจึงถือเป็นโอกาส ในการแก้ไขปัญหาคือต่อเนื่อง เพราะหากไม่ เร่งแก้ไขในช่วงนี้ก็อาจไม่มีโอกาสที่เหมาะสม ขณะนี้กระทรวงทรัพยากรฯและกระทรวงยุติธรรม เริ่มเห็นช่องทางในการแก้ไขว่าจะคืนหน้าอย่างไร

หลังจากนี้จึงขอเวลาให้รัฐได้ทำงานและแก้ไข ขณะนี้ นายดีเรก กองเงิน ชาวบ้านอ.เชิงดาว จ.เชียงใหม่ ระบุว่า การปฏิบัติงานของกรมป่าไม้ และหน่วยงานในพื้นที่ไม่มีการเข้ามาชี้แจง ทำความเข้าใจกับชาวบ้านก่อนแต่ได้จับกุมและ แจ้งข้อกล่าวหาบุกรุกพื้นที่ เช่น กรณีเกาะหริ่ง ที่อาศัยอยู่ในพื้นที่พร้อมเจ้าหน้าที่ร่วมกันแก้ปัญหาด้วยการตรวจสอบพื้นที่และพิสูจน์การ ทำไร่ชากหมุ่นเวียนจนได้ข้อสรุปว่าเป็นวิถีชุมชน ตั้งเดิมทำให้เกิดปัญหารุนแรง

สำหรับประเด็นที่กระทรวงทรัพยากรฯ มอบหมายให้กระทรวงยุติธรรมตรวจสอบคดี ความต่างๆ ที่กลุ่มพี-มูฟ ถูกจับกุมและร้องขอ ความเป็นธรรมไปยังหน่วยงานต่างๆ มีทั้งสิ้น 17 พื้นที่ อาทิ คดีนายสุชาติ จินมงคล ชาวจ.ระนอง ถูกฟ้องเรียกค่าเสียหายจากการทำให้โลกร้อน 1.5 ล้านบาท นางประกอบ เพ็ญจันทร์ ยายเด้าอายุ 84 ปี ชาวบ้านจ.ระนองถูกเจ้าหน้าที่ป่าไม้ แจ้งข้อหาตัดไม้และทำให้โลกร้อน โดยการโค่น ต้นยาง 71 ต้น ทั้งนี้มีหลักฐานจากการแจ้งความ กับตำรวจว่า เกิดลมพายุพัดต้นยางเสียหาย 71 ต้น และกรณีกลุ่มพี-มูฟ 11 รายในจ.กระบี่ ถูกจับกุมข้อหาบุกรุกป่า ต่อมาเจ้าหน้าที่ได้เข้า รั้วดอนพืชและตัดฟันต้นยางพาราทั้งที่ผู้ต้องหา 11 ราย มีผู้กระทำผิดเพียง 2 รายเท่านั้น

CLIMATE CHANGE

PM weighs emissions goal effect

**PATSARA JIKKHAM
APINYA WIPATAYOTIN**

An ambitious target to cut greenhouse gases 25% by 2030 requires that Prime Minister Prayut Chan-o-cha look into the possible impacts on Thailand's industrial development.

Meeting officials ahead of his participation in the United Nations Framework Convention on Climate Change (UNFCCC) yesterday, the premier asked experts to conduct a study on whether the industrial sector will suffer if Thailand goes ahead with the target, deputy government spokesman Werachon Sukondhapatipak said.

Gen Prayut is scheduled to announce the country's plan to reduce greenhouse

gas emissions by between 20-25% at the UNFCCC, which is being held in Parc des Expositions du Bourget in Paris, France.

World leaders are meeting to discuss new commitments to deal with global warming.

They expect a new agreement to replace the 1997 Kyoto Protocol international pact, that sets targets for industrialised countries to cut their greenhouse gas emissions.

Greenhouse gases, especially CO₂, are blamed for the rise in world temperatures.

The issue has become a major environmental concern, causing debates over control on energy usage.

Meanwhile, farmers in the Central Plains have been warned to prepare for a drought which is expected to hit the region over the next three years as average rainfall in

mountainous areas is decreasing.

Sucharit Koontanakulvong, chief of the department of water resources engineering at Chulalongkorn University's faculty of engineering, said the farming sector will be further hit by drought for another three years until there is enough water in the country's main dams to boost supply.

Mr Sucharit said it usually takes around three years for sufficient water to flow in to support dam levels to secure planting activities during the dry season.

Average rainfall has dropped by 5-10% since 2011, he said.

**Climate fight bill set at \$1tr: Page 7
Opinion: Page 11**

ENVIRONMENT

Top court rules against encroachers

ACHARA ASHAYAGACHAT

The Supreme Administrative Court has upheld a lower court's verdict dismissing 23 villagers' complaints against the compensation methods used by the Department of National Parks, Wildlife and Plant Conservation and the Royal Forest Department.

The case stems from a petition filed with the Supreme Court on May 28, 2012 by 23 villagers from the North, Northeast and South against the departments.

The villagers were accused of encroaching on deteriorated forest land and felling trees to make way for farming in the areas they occupied.

The cutting down of the trees contributed to global warming, according to the departments. They argued the villagers must pay the state compensation for their role in worsening climate change.

The villagers, however, insisted the compensation demanded of them was too high, based on the departments' own calculation methods.

The villagers took the matter to the Administrative Court seeking an order for the calculation to be standardised.

The Administrative Court threw out the petition and the case continued after an appeal by the villagers until it reached the Supreme Administrative Court which handed down a ruling yesterday. The Supreme Administrative Court decided the method for calculating compensation for damage to the world's climate involved internal criteria, used by the departments for reference only.

According to the Supreme Administrative Court, it is up to the Court of First Instance to determine the exact amount of compensation affected parties have to pay.

The Supreme Administrative Court also dismissed the petitioners' assertion that the constitution recognised community rights in forestry and land management, finding that community rights were a separate issue from the state penalising individuals.

Kanya Panpiti, 53, from Trang, wept after hearing the ruling. She said she was scared her family will be evicted from the land they occupy.

SPECIAL REPORT



A large tree is cut down in a forest where watersheds are located in Ban Khai district of Rayong. Residents, reportedly backed by businessmen and politicians, cleared the forest to grow rubber trees and cash crops. JUMPHOL NIKOMRUK

Experts differ on how encroachers must pay for harm they cause, write Apinya Wipatayotin and Achara Ashayagachat

Chada Chuthing, 54, came away from the Administrative Court in July facing almost certain bankruptcy. And she thinks she has an inflexible bureaucracy,

and the climate, to blame.

Her face paled and palms started to sweat when the court read out its decision. It found she is liable to pay the Department of National Parks, Wildlife and Plant Conservation 1.5 million baht for encroaching on the forest and re-planting trees in the forestland in her native Yan Takhao district of Trang.

She is being punished financially for wiping out native, naturally-grown forest trees, and replacing them with cash crops.

The practice robs the forest of its richness and worsens global warming, a main reason cited by the department to justify demanding "compensation" from her, according to the forestry authorities.

However, the encroachers, many of whom have no land of their own for farming, argued the forest was already in a deteriorated state with few precious trees left standing when they moved in.

Still, Ms Chada has wound up facing the

same fate as most other forest encroachers nationwide. They face prosecution on encroachment charges and were also hit by notices to pay compensation.

They insist they will pay as long as the compensation rate is fair. But they argue this is not the case.

Ms Chada and a dozen other villagers accused of encroachment went to the Administrative Court armed with a class petition.

They argued the compensation claims were grossly exaggerated and asked the court to order the department to come up with a standard method of calculation based on academic research.

Ms Chada and other encroachers had hoped a favourable ruling from the Administration Court would at least lessen the steep amounts of compensation demanded from them by the parks department.

However, the Administrative Court

in July did not order the department's method of calculation to be changed, meaning the encroachers are still liable to meet the compensation demand.

The financial penalty imposed on forest encroachers, also known as "climate change compensation", was first introduced in 2004.

It calculates in monetary terms the damage and loss resulting from deforestation which forest encroachment causes to the ecological system.

More than 100 cases of forest encroachment, including those involving influential persons, have been readied for prosecution with demands issued for the climate change compensation.

An encroacher, once ruled guilty by the court, must pay a penalty fee to the department as compensation for ruining the forest ecology and the climate.

Pongsak Witwatthanachutikul, a retired national parks official who played a part in adjusting the compensation model in 1997, said the change was intended to create justice.

The compensation had been around long before he came to work at the national

parks agency. But the previous calculation method had been criticised as inflated as the encroachers were slapped with a blanket compensation rate of 150,000 baht per rai, regardless of what type of forest they encroached on and whether there were trees on the land.

He conceded some of the forest land had been bare before the encroachers came to occupy it.

The reality on the ground prompted the method of calculation for compensation to be revised. Three criteria were subsequently introduced to make for a more precise, and fair, calculation, Mr Pongsak said.

The first criteria is whether the encroachment has jeopardised the natural richness of the forest, lessened or wiped out precious trees and wildlife animals in specific areas, or damaged the soil quality or depleted the ground water.

The second is whether the poaching has altered for the worse the ecological balance between the forest trees and the ground temperature and the amount of precipitation as well as the soil's capacity to absorb water. A third criteria is whether the encroachment has incurred the "cost of forest services to humans" such as the

forest's ability to mitigate destruction from water runoff that threatens people's lives, and leads to a decrease in native, edible wild plants.

Critics of the compensation questioned the second criteria, arguing it is not practical or even possible to put a price on the relationship between the temperature and rainfall. However, the parks department has come up with compensation figures for losses or destruction to specific types of forest with damage to the climate also factored in.

The compensation amount for damage to the *pa dib khao* (montane forest or evergreen hill forest), the *pa dib chuen* (tropical rain forest) and the *pa dib lang* (dry evergreen or semi-evergreen forest) ranges between 64,848-94,402 baht per rai.

For damage to the *pa benjapan* (mixed deciduous forest), the compensation is between 23,847-74,760 baht per rai and for the *pa teng rung* (dry dipterocarp forest), the compensation falls to between 24,058-32,847 baht per rai.

How much the encroachers are charged depends on the extent of destruction they have made to the density of the forest and the value of the forest trees, as well as how much the deliberate acts of depleting the trees raised the heat above the soil which fuels global warming.

When trees are cut down there is nothing to absorb carbon dioxide. As more carbon dioxide goes into the atmosphere, it worsens the greenhouse effect.

Many forests with the highest compensation price tags are also prime watersheds and the origins of major rivers. It is noted the compensation amounts do not correspond so much to the elevation of the forests above sea level as what precious or rare trees there are.

Mr Pongsak said slashing and burning forest land, including rare trees, to grow maize and farm rubber trees, for example, has caused extensive damage to forest ecology.

He said a study confirmed that rubber trees, if farmed in high-forest mountains, can lead to a sharp drop in groundwater.

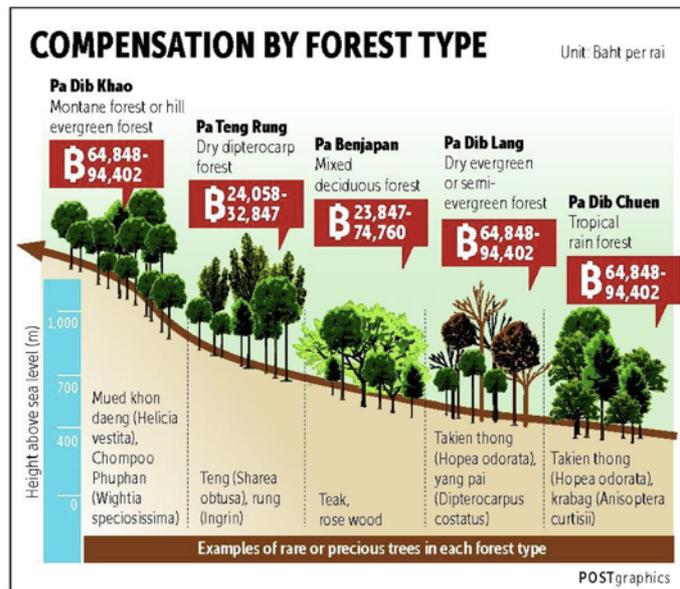
He also explained that before the changed calculation method was adopted, it was tested at 16 different watershed stations nationwide to ensure its accuracy and reliability.

"Every step of the calculation is scientific and measurable. That is why the court is willing to listen to our reasons. In fact, the court applied the method as a reference in arriving at compensation rates that are not much different from one encroachment case to another," he said.

Many developed countries follow a principle in which wrongdoers are obliged to replant trees. But in Thailand, importance is attached to legal means of seeking

“ Every step of the calculation is scientific and measurable.

PONGSAK WITWATTANACHUTIKUL
REFORMER OF CLIMATE JUSTICE COMPENSATION MODEL



restitution rather than making the wrongdoers restore what they have destroyed.

Mr Pongsak insisted forestry officials do not pull compensation amounts “from the air”. They conduct an on-site survey of encroached forest areas and collect the data needed to appraise the damage, taking into account fairness to the department and the encroachers.

Meanwhile, national parks deputy chief Adisorn Noochdumrong said the compensation assessment was viable and here to stay.

The Administrative Court found the department has the right to adopt the model as the basis for assessing compensation, supported by academic study, he said.

Forest harm lawsuits ‘target poor’

ACHARA ASHAYAGACHAT

Activists have urged the government to suspend compensation lawsuits against forest encroachers and consider a more humane formula to address “climate change justice”.

About 3,500 people are facing civil suits filed by the national parks department and the Royal Forest Department, Land Reform Network coordinator Arewan Kusanthia said.

The National Human Rights Commission (NHRC) said the government’s policy to address deforestation represents a major concern for community rights.

They say it has no precedent overseas where forest encroachment cases occur, and unfairly targets the poor.

NHRC member Niran Pitakwatchara said the National Council for Peace and Order’s Order No. 64/2014 — which allows authorities to retrieve forested and state-owned land which have been encroached upon and prosecute encroachers, who are mostly underprivileged or poor people — should end.

“If the government and the cabinet ministers don’t intend to suck money out of the penniless villagers by slapping them with the ‘climate change justice’ lawsuits, they should say so,” said Boon Sae Jung, core member of the Bantad Mountain Range Land Network.

Some residents find themselves facing a triple whammy — served with an eviction order, charged criminally for encroachment and embroiled in civil suits over climate change damage, Mr Boon said.

However, some critics say not every

encroacher invaded the forests to seek land for farming. Some hold the forest land illegally on behalf of rich people, who manage to escape the law.

Orapan Nabangchang, Sukothaithammatirat University’s deputy director of the Economy and Environment Programme for Southeast Asia, said applying a single climate damage-compensation formula to all forest encroachment cases was impractical.

“In theory it might sound like a good idea [to get the offenders to pay], but adopting the current compensation assessment method is problematic,” Ms Orapan said.

She argued there are several ways to evaluate the economic impact brought on by acts of forest degradation.

But authorities tend to often follow a compensation calculation method which overlooks the actual condition in which the forest land was left before or after the encroachment.

In reality, some forest land was almost barren when it was encroached upon. However, compensation was demanded from villagers as though they had abused a pristine forest.

The economist insisted the climate change-related portion in the compensation demand should be flexible because the encroachment conditions vary.

The penalty for hurting the climate should be made “more justifiable”, Ms Orapan said, citing a court ruling in Australia in which forest encroachers were ordered to plant trees in lieu of compensation to promote a healthy ecological system.

She said such a ruling could be a guideline for deciding on punitive action against offenders in Thailand where they may be ordered to plant trees several times the size of land they had illegally taken.

Siriwan Vongkietpaisan, of the Social Responsibility Law Office, said if the government can go after the villagers for the compensation, it must do the same with state agencies which launch projects that damage the climate as well.

‘ยธ.’เร่งหามาตรการเยียวยา-พิสูจน์ ผลกระทบปมทวงคืน ‘ผืนป่า’ 58 พื้นที่

ยธ.เร่งหามาตรการเยียวยา-พิสูจน์สิทธิ ชาวบ้านที่ได้รับผลกระทบจากนโยบายทวงคืน ผืนป่า 58 พื้นที่ วอนช่วยขยายแนวภัย 84 ปี ถูกตั้งข้อหาโค่นต้นยางพารา 71 ต้นเรียกค่าเสียหาย ทำให้โลกร้อน 1.5 ล้าน

พ.ต.อ.ดุสิต อารยวุฒิ รองปลัดกระทรวงยุติธรรม เป็นประธานประชุมแก้ไข ปัญหาชาวบ้านที่ถูกดำเนินคดีอาญาข้อหา บุกรุกป่า ตามที่พล.อ.ดาว์พงษ์ รัตนสุวรรณ รัฐมนตรีว่าการกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อมมาเยี่ยมมายังกระทรวงยุติธรรม(ยธ.) เพื่อช่วยเหลือเยียวยาชาวบ้านที่ได้รับผลกระทบจากคำสั่งคสช.จากนโยบายทวงคืน ผืนป่า โดยกลุ่มพี-มูฟ ระบุว่า มีชาวบ้านได้รับผลกระทบจากรัฐ กรณีมีการเข้าไปโค่นต้นยางพาราในพื้นที่ป่าสงวนแห่งชาติอุทยานแห่งชาติ และที่สาธารณประโยชน์ รวม 58 พื้นที่

พ.ต.อ.ดุสิต กล่าวว่า ปัญหาดังกล่าวมีความซับซ้อน จึงขอให้กลุ่มพี-มูฟช่วยรวบรวม รายละเอียดของปัญหาทั้งหมดและแนวทาง ที่ต้องการให้แก้ไขว่าต้องการให้ภาครัฐดำเนินการอย่างไร เพราะในส่วนของเจ้าหน้าที่ทั้งกรมป่าไม้ กรมอุทยานฯ มีอำนาจหน้าที่แตกต่างกัน บางส่วนก็ถูกต่อต้านจากชาวบ้าน การใช้ดุลยพินิจของพนักงานเจ้าหน้าที่อาจมีปัญหา หากมีการ

หารือชัดเจนเป็นรายคดีจะทำให้การแก้ปัญหา ยง่ายขึ้นและมีช่องทางในการพิสูจน์สิทธิ เนื่องจาก การดำเนินคดีต้องให้ความเป็นธรรมกับทุกฝ่าย ทั้งรัฐและชาวบ้าน ดังนั้นจึงขอให้กระทรวง ทรัพยากรพิสูจน์ภาพถ่ายทางอากาศเพื่อให้เกิด ความชัดเจนเกี่ยวกับผู้ครอบครองทำประโยชน์ ที่แท้จริงว่าชาวบ้านเข้ามาทำกินก่อนประกาศเป็น พื้นที่อนุรักษ์หรือไม่

ด้าน น.ส.สุทธิลักษณ์ ธีระวรรณ รองปลัด กระทรวงทรัพยากรฯ กล่าวว่า ปัญหาการพิสูจน์ สิทธิไม่สามารถทำได้อย่างรวดเร็ว เพราะระบบ ราชการมีขั้นตอน ในส่วนของทรัพยากรชาวบ้าน ที่ได้รับความเสียหายจากคำสั่งคสช. ยอมรับว่า รัฐบาลไม่มีกองทุนหมุนเวียนมาเยียวยาได้ทันที เพราะก่อนเยียวยาต้องพิสูจน์ให้ชัดเจนก่อนว่า ชาวบ้านไม่ได้รับความเป็นธรรมจริงและขั้นตอน การเยียวยาจะใช้รูปแบบใด

อย่างไรก็ตาม ยอมรับว่าการบุกรุกพื้นที่ เพื่อปลูกยางพาราของชาวบ้านเกิดขึ้นนานแล้ว และทุกครั้งที่มีการดำเนินการอย่างเข้มงวดก็มัก เกิดปัญหา กรณีที่เกิดขึ้นล่าสุดจึงถือเป็นโอกาส ในการแก้ไขปัญหาคือต่อเนื่อง เพราะหากไม่ เร่งแก้ไขในช่วงนี้ก็อาจไม่มีโอกาสที่เหมาะสม ขณะนี้กระทรวงทรัพยากรฯและกระทรวงยุติธรรม เริ่มเห็นช่องทางในการแก้ไขว่าจะเดินหน้าอย่างไร

หลังจากนี้จึงขอเวลาให้รัฐได้ทำงานและแก้ไข ขณะนี้ นายดีเรกกองเงินชาวบ้านเอเชียตาว จ.เชียงใหม่ระบุว่า การปฏิบัติงานของกรมป่าไม้ และหน่วยงานในพื้นที่ไม่มีมีการเข้ามาชี้แจง ทำความเข้าใจกับชาวบ้านก่อนแต่ได้จับกุมและ แจ้งข้อกล่าวหาบุกรุกพื้นที่ เช่น กรณีเกาะหริ่ง ที่อาศัยอยู่ในพื้นที่พร้อมเจ้าหน้าที่ร่วมกันแก้ปัญหาด้วยการตรวจสอบพื้นที่และพิสูจน์การ ทำไร่ชากหมุ่นเวียนจนได้ข้อสรุปว่าเป็นวิถีชุมชน ตั้งเดิมทำไร่ไม่เกิดปัญหารุนแรง

สำหรับประเด็นที่กระทรวงทรัพยากรฯ มอบหมายให้กระทรวงยุติธรรมตรวจสอบคดี ความต่างๆ ที่กลุ่มพี-มูฟ ถูกจับกุมและร้องขอ ความเป็นธรรมไปยังหน่วยงานต่างๆ มีทั้งสิ้น 17 พื้นที่ อาทิ คดีนายสุชาติ จินมงคล ชาวจ.ระนอง ถูกฟ้องเรียกค่าเสียหายจากการทำให้โลกร้อน 1.5 ล้านบาท นางประกอบ เพ็งจันทร์ ย้ายแต่อายุ 84 ปี ชาวบ้านจ.ระนองถูกเจ้าหน้าที่ป่าไม้ แจ้งข้อหาตัดไม้และทำให้โลกร้อน โดยการโค่น ต้นยาง 71 ต้น ทั้งนี้มีหลักฐานจากการแจ้งความ กับตำรวจว่า เกิดลมพายุพัดต้นยางเสียหาย 71 ต้น และกรณีกลุ่มพี-มูฟ 11 รายในจ.กระบี่ ถูกจับกุมข้อหาบุกรุกป่า ต่อมาเจ้าหน้าที่ได้เข้า รื้อถอนพืชและตัดฟันต้นยางพาราทั้งที่ผู้ต้องหา 11 ราย มีผู้กระทำผิดเพียง 2 รายเท่านั้น



Shifting gear on climate change

British scientist, Daniel Price, right, cycles from the British embassy on Wireless Road to Lumpini Park in Bangkok yesterday as a part of his "Pole to Paris" tour, to raise public awareness on climate change. His 17,000km trip will end in Paris where the United Nations' 21st Congress of the Parties is expected to negotiate a "climate deal" in December. APICHAART JINAKUL



เตือนภัย : กรีนพีซ เอเชียตะวันออกเฉียงใต้ ร่วมกับ เทศบาลเมืองพิษณุโลก เครือข่ายจับตาโลกร้อน climate Watch Thailand และ CAN ประเทศไทย ร่วมจัดแสดงภาพวาด 3 มิติ บริเวณสวนสาธารณะเฉลิมพระเกียรติฯ จ.พิษณุโลก แสดงถึงความรุนแรงของภัยแล้งที่เกิดขึ้น และเพื่อแสดงพลังไปยังผู้นำประเทศที่กำลังจะเริ่มประชุมเพื่อจัดการกับโลกร้อน ที่กรุงปารีส ในวันที่ (30 พ.ย.)

Chao Phraya drought 'will last till 2017'

People must 'prepare for water shortages'

APINYA WIPATAYOTIN

People living in the Chao Phraya River basin should prepare for a drought crisis that will last until 2017, and those in Bangkok should store water for consumption during the dry season, a seminar was told.

Anond Snidwongs, director of the Geo-Informatics and Space Technology Development Agency (GISTDA), said the El Nino effect would result in a repeat of this year's weather pattern over the next couple of years — rainfall that comes late in the season, and in below average amounts.

Climate change had produced less rainfall in the north and the west, the main sources of water supplying the dams along the Chao Phraya River basin.

However, the east and the south will not suffer from water shortages as rainfall there has been sufficient.

"If the forecast is correct, it means that we will face serious water shortages in the long run. If we can't save water in the agricultural sector, we can't survive the water shortage crisis as this is the biggest water consumption sector," Mr Anond said.

He was speaking at a seminar on water management organised by Bangchak Petroleum Plc and *Krungthep Thairakit* newspaper.

According to GISTDA, one million of the three million rai of paddy fields in the Chao Phraya River basin are in irrigated areas, mostly in Pichit and Supan Buri provinces.

However, the Royal Irrigation Department disputes these figures, saying there are only 500,000 rai of paddy fields in the irrigated areas of the river basin.

Mr Anond said convincing farmers to switch from planting rice to plants that

consume less water in the dry season was a challenging job for state agencies, which need to win the trust of farmers.

Thanarat Phumimakisorn, assistant to the Electricity Generating Authority of Thailand governor, said power shortages won't happen, even if water in Bhumibol dam in Tak province and Sirikit dam in Uttaradit province falls to levels where they cannot produce hydropower.

They account for only 2% of Thailand electricity's energy sources, he said.

It is expected there will be around 3.6 billion cubic metres of water in the dams along the Chao Phraya River basin at the end of the rainy season, he said.

This is a small amount compared to the average of 9 billion cu/m discharged by the two dams each year for daily consumption, agriculture and ecological system preservation.

Authorities have forecast there will be only 981 million cu/m of water in the Bhumibol dam and 1.86 billion cu/m in the Sirikit dam at the end of this month, with two smaller dams also supplying less than 1 billion cu/m of water.

Meanwhile, Wiwat Salyakanthorn, chairman of the Agri-nature Foundation, warned that people living in irrigated areas will be hardest hit by any water shortages in coming months as they lack self-reliance and the ability to fend for themselves.

He said this was especially true of people in Bangkok, who rely on the tap water system and have few clues about how to preserve water in their households.

"I see no choice left, except self-reliance, especially for people living in the capital. They should prepare to preserve water as they might face water shortages or salty water. This will happen and we can't avoid it," he said.

"Each community should have their own ponds for water storage, which is a way of self-reliance suggested by His Majesty the King, who is a world-class master of water management."

**กทม.จัดทำแผนแม่บทสภาพอากาศ
ผะอุงเทพอ อ่วมควันพินน้ำเสี้ยน**

เมื่อวันที่ 21 ก.ค.58 ที่หอศิลป์ฯ แยก การวางผังเมืองสีเขียว 5.ด้านแนวทางการรับมือ
ปทุมวัน นายจุมพล ส้าเกาฬ รองผู้ว่าฯ กทม. การเปลี่ยนแปลงของสภาพภูมิอากาศ ทั้งนี้ปัจจุบัน
กล่าวหลังเป็นประธานเปิดตัวโครงการแผนแม่บท กรุงเทพฯมีรถยนต์กว่า 8.5 ล้านคัน มีการปล่อย
กรุงเทพมหานคร ว่าด้วยการเปลี่ยนแปลงสภาพ ฟ้าเรือนกระจกมากถึง 42 ล้านตันต่อปี มีน้ำเสีย
ภูมิอากาศ พ.ศ.2556-2566 ว่า แผนแม่บท 4 ล้าน ลบ.ม/วัน แต่ กทม.สามารถนำน้ำเสีย
ดังกล่าวได้ศึกษาและรับฟังความคิดเห็นจาก 4 ล้าน ลบ.ม/วัน แต่ กทม.สามารถนำน้ำเสีย
ทุกภาคส่วนเป็นเวลา 2 ปี ตั้งแต่ปี 2556- ที่เข้าสู่กระบวนการบำบัดได้เพียง 20% ส่งผลต่อ
2558 ประกอบด้วยแผนรับมือการเปลี่ยนแปลง ปัญหาด้านสิ่งแวดล้อมอย่างมาก โดยเฉพาะปัญหา
ของอากาศใน 5 ด้านคือ 1.ด้านการขนส่ง 2.ด้าน ภัยแล้งในปี 2558 ที่เกิดขึ้นนั้น ถือว่ามีความ
พลังงาน 3.ด้านขยะและการบำบัดน้ำเสีย 4.ด้าน รุนแรงมากที่สุดในรอบ 30 ปี.

นายกฯชูลดโลกร้อน บนเวทีปารีสสิ้น พ.ย.

ตั้งเป้าลดก๊าซคาร์บอน
ไดออกไซด์ 25% ในปี 2030

คณะผู้แทนสหภาพยุโรปประจำประเทศไทย-สผ. ร่วมยืนยันความพร้อมร่วมเวที “สภาพภูมิอากาศโลก” ที่ปารีส เผยนายกฯ เตรียมขึ้นเวทีประกาศขานนโยบายลดโลกร้อน ตั้งเป้าลดคาร์บอนไดออกไซด์ 20-25% ก่อนปี 2030 พร้อมร่วมทำสัญญากับนานาชาติเพื่อร่วมกันจำกัดความร้อนของโลกให้ต่ำกว่า 2 องศา

จากกรณีที่ พล.อ.ประยุทธ์ จันทร์โอชา นายกรัฐมนตรี จะเดินทางไปร่วมการประชุมสมัชชาประเทศภาคีอนุสัญญาสหประชาชาติว่าด้วยการเปลี่ยนแปลงสภาพภูมิอากาศสมัยที่ 21 หรือ คีออป 21 ที่กรุงปารีส ประเทศฝรั่งเศสระหว่างวันที่ 30 พ.ย.-11 ธ.ค.ที่จะถึงนี้ สำนักงานคณะผู้แทนสหภาพยุโรปประจำประเทศไทย ร่วมกับสำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม (สผ.) ได้บรรยายสรุป “โค้งสุดท้ายก่อนคีออป 21” เพื่อแจกแจงรายละเอียดการประชุมดังกล่าว

นายประเสริฐ ศิริภาพร ผู้อำนวยการสำนักงานประสานการจัดการเปลี่ยนแปลงสภาพภูมิอากาศ สผ. กล่าวว่าในการประชุมครั้งนี้ประเทศไทยได้ทำการศึกษารายละเอียดเกี่ยวกับสภาพอากาศของประเทศ และได้ตั้งเป้าหมายการลดก๊าซคาร์บอนไดออกไซด์ ให้ได้ 20-25% ก่อนปี 2030 อย่างไรก็ดี ในช่วงที่จะลดลง 20% นั้นไทยสามารถทำเองได้ แต่ในช่วงการลดปริมาณให้ถึง 25% นั้น จะต้องได้รับเงินงบประมาณสนับสนุนจากต่างประเทศ เพราะมีค่าใช้จ่ายสูงมาก

ในส่วนการเตรียมความพร้อมของไทยนั้น ได้มีการเตรียมข้อมูลและส่งเนื้อหาการประชุมเจรจาส่งรายงานต่อที่ประชุมเป็นที่เรียบร้อยแล้ว ตามที่กำหนดไว้ตั้งแต่ 1 ต.ค.ที่ผ่านมา โดยที่ พล.อ.ประยุทธ์ จันทร์โอชา นายกรัฐมนตรี จะเดินทางไปร่วมการประชุมและขึ้นกล่าวถ้อยแถลงกรณีในประเด็นดังกล่าว

น.ส.สาวิตรี ศรีสุข ผู้เชี่ยวชาญเฉพาะด้านส่งเสริมและเผยแพร่ กรมส่งเสริมคุณภาพสิ่งแวดล้อม กล่าวถึงการเปิดตัวเว็บไซต์รายงานกิจกรรมแต่ละวันของผู้แทนฝ่ายไทยและการประชุม รวมทั้งกิจกรรมในแต่ละวัน ในช่วงระหว่างการประชุม รวมทั้งแสดงรายละเอียดถึงการจับตาทิศทางของไทยภายในงาน ว่าจะเป็นการนำเสนอโครงการวิชาการที่มุ่งไปสู่การลดภาวะโลกร้อน

นอกจากนี้ ยังมีนักศึกษามหาวิทยาลัยเชียงใหม่ ซึ่งชนะการประกวดภาพยนตร์สั้นในงานมหกรรมการเปลี่ยนแปลงภูมิอากาศเมื่อวันที่ 27 ต.ค. ได้รับการสนับสนุนให้ไปร่วมงานที่ฝรั่งเศสด้วย

ด้าน น.ส.อเล็กซานดา บรานนอก ผู้แทนสถานเอกอัครราชทูตฝรั่งเศสประจำประเทศไทย กล่าวถึงความพร้อมของการจัดงานครั้งนี้ว่า ทุกอย่างยังคงเป็นไปตามกำหนดการที่ตั้งไว้ แม้จะอยู่ในช่วงที่มีเหตุการณ์ตึงเครียดก็ตาม ซึ่งคงจะไม่มีส่วนสร้างสรรค์ใดๆ เกิดขึ้น

ทั้งนี้ภายในงานนอกจากจะมีการประชุมในวาระสำคัญแล้ว ยังมีการจัดเวทีการแสดงด้านวิชาการที่เกี่ยวกับการลดก๊าซเรือนกระจก การจัดเวทีภาคประชาชนเพื่อให้มีการเสวนาเรื่องสภาพอากาศโลก พื้นที่จัดฉายภาพยนตร์ที่เกี่ยวข้องกับภาวะและการป้องกันโลกร้อน รวมทั้งพื้นที่ของสื่อมวลชนที่มีความพร้อมในการอำนวยความสะดวกในการส่งข่าวและเผยแพร่เนื้อหาการประชุม

สำหรับการประชุมสมัชชาประเทศภาคีอนุสัญญา สมัยที่ 21 หรือที่รู้จักในนาม Paris 2015/COP 21 ปีนี้ประเทศฝรั่งเศสเป็นประธานการประชุม โดยการประชุมนี้เป็นการประชุมสำคัญว่าด้วยวิธีการต่อรองระหว่างประเทศ ซึ่งจะส่งผลต่อมวลมนุษยชาติ ในฐานะมนุษย์ที่มีความจำเป็นในการทำให้สัญญาระหว่างประเทศฉบับใหม่ ว่าด้วยเรื่องการเปลี่ยนแปลงสภาพภูมิอากาศให้บรรลุผลสำเร็จอย่างเร่งด่วน โดยตั้งเป้าร่วมกันในภาคีเครือข่ายระดับชาติในการจำกัดความร้อนของโลกให้อยู่ต่ำกว่า 2 องศาเซลเซียส



ศนย์วิชาการนานาชาติด้านการเปลี่ยนแปลงสภาพภูมิอากาศ (Climate Change International Technical and Training Center : CITC) ภายใต้องค์การบริหารจัดการก๊าซเรือนกระจก กระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม ได้จัดสัมมนาเชิงปฏิบัติการภายใต้หัวข้อ "การพัฒนาศักยภาพเพื่อเข้าสู่สังคมคาร์บอนต่ำในภูมิภาคเอเชียตะวันออกเฉียงใต้" โดยมีวิทยากรผู้ทรงคุณวุฒิจากหลายประเทศเข้าร่วม

พล.อ.เอกชัย จันทร์ศรี ที่ปรึกษา รัฐมนตรีว่าการกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม กล่าว ว่า ผลกระทบรุนแรงจากการเปลี่ยนแปลงสภาพภูมิอากาศ และความสำคัญของการจัดการก๊าซเรือนกระจก เราเชื่อว่า

การเปลี่ยนเข้าสู่สังคมคาร์บอนต่ำ จึงเป็นสิ่งจำเป็นอย่างยิ่งยวดสำหรับประเทศไทย ในการพัฒนาประเทศอย่างยั่งยืนและสู้กับปัญหาการเปลี่ยนแปลงสภาพภูมิอากาศไปพร้อม ๆ กัน และจากประสบการณ์ที่ผ่านมาทำให้เห็นว่า 3 เรื่องหลักได้แก่ ปรชญาเศรษฐกิจพอเพียงขององค์พระบาทสมเด็จพระเจ้าอยู่หัว การพัฒนาสู่สังคมคาร์บอนต่ำ และการเติบโตสีเขียว เป็นการพัฒนาไปในทิศทางเดียวกัน

โดยปรัชญาเศรษฐกิจพอเพียงประกอบด้วย 3 องค์ประกอบหลักคือ 1.ภูมิคุ้มกัน ซึ่งหมายถึงการเตรียมตัวให้พร้อมรับผลกระทบและการเปลี่ยนแปลงด้านต่าง ๆ ที่จะเกิดขึ้น โดยคำนึงถึงความเป็นไปได้ของสถานการณ์ต่าง ๆ ที่คาดว่าจะ

ไทยยินดีที่จะมีส่วนร่วมในการลดก๊าซเรือนกระจกลง 7-20% ในปีค.ศ.2020

> อนุรักษ์ วายภาพ นิตพณ

จะเกิดขึ้นในอนาคต การพัฒนาสู่สังคมคาร์บอนต่ำ และการเติบโตสีเขียว เป็นการพัฒนาไปในทิศทางเดียวกัน

2. ความพอประมาณ คือ ความพอดีที่ไม่น้อยเกินไปและไม่มากเกินไปโดยไม่เบียดเบียนตนเองและผู้อื่น และ 3. ความมีเหตุผล ซึ่งหมายถึงการตัดสินใจเกี่ยวกับระดับความพอเพียงนั้น จะต้องเป็นไปอย่างมีเหตุผล

ด้านนางณัฐริกา วายุภาพ นิติน

รองผู้อำนวยการองค์การบริหารจัดการก๊าซเรือนกระจกและผู้บริหารของศูนย์ซีไอทีซี กล่าวว่า การปล่อยก๊าซเรือนกระจกของประเทศไทย อยู่ที่ประมาณ 0.9% ของโลก แต่สิ่งที่สำคัญ คือ การปล่อยก๊าซเรือน

กระจกของประเทศไทย มีอัตราที่เพิ่มสูงขึ้นเรื่อยๆ แต่ทิศทางของโลก กำลังควบคุมอุณหภูมิโลกไม่ให้เพิ่มสูงขึ้นจากเดิมเกิน 2 องศาเซลเซียสในสิ้นศตวรรษ โดยมีเป้าหมายให้ทุกประเทศร่วมมือกันลดอุณหภูมิโดยควบคุมการปล่อยก๊าซเรือนกระจก

ซึ่งในปี 2557 ประเทศไทย เข้าไปมีส่วนร่วม โดยคณะรัฐมนตรี มีมติอนุมัติให้กระทรวงทรัพยากรและสิ่งแวดล้อมประกาศเจตจำนงโดยความสมัครใจต่ออนุสัญญาอนุสัญญาเอ็นเอฟซีซี เพื่อให้ประชาคมโลกรับรู้ว่า ประเทศไทยยินดีที่จะมีส่วนร่วมในการลดก๊าซเรือนกระจก 7-20% ในปี ค.ศ.2020 โดยจะเป็นการดำเนินงานภายในประเทศ 7% และจะสามารถลดลงได้ถึง 20% ถ้าหากได้รับการสนับสนุนจากต่างประเทศ

ในส่วนของประเทศไทย จะมีการดำเนินงานในภาคพลังงาน ด้วยการเพิ่มพลังงานหมุนเวียน การอนุรักษ์พลังงาน การประหยัดพลังงาน และการส่งเสริมการแปลงขยะให้เป็นพลังงาน รวมไปถึงการใช้รถโดยสารขนส่งมวลชนแทนรถยนต์ส่วนตัว และการรณรงค์ให้ประชาชนใช้จักรยานเพิ่มมากขึ้น ซึ่งสิ่งเหล่านี้จะประกอบกันเพื่อนำไปสู่การคำนวณซึ่งเป็นผลงาของประเทศไทยว่าสามารถลดก๊าซเรือนกระจกได้

ที่สำคัญ คือ การดำเนินงานดังกล่าว จะมีส่วนช่วยลดการตัดไม้ทำลายป่า และเพิ่มพื้นที่ป่าชุมชนแบบยั่งยืน อย่างไรก็ตาม การดำเนินงานทั้งหมดของประเทศไทย จะยึดกรมใหญ่ คือ แนวปรัชญาเศรษฐกิจพอเพียงของพระบาทสมเด็จพระเจ้าอยู่หัว

โดยใช้วิธีการดำเนินงานแบบประหยัด การอนุรักษ์พลังงาน และรู้จักพอเพียง อันจะนำไปสู่สังคมคาร์บอนต่ำ ซึ่งจะช่วยลดความรุนแรงของภัยธรรมชาติที่เกิดขึ้นได้

สำหรับแนวทางหลักที่จะช่วยให้การดำเนินงานของประเทศประสบความสำเร็จ คือ การรณรงค์ประชาชนสัมพันธ์ให้กับประชาชนตระหนักรู้ และเข้ามามีส่วนร่วมที่จะช่วยกันลดก๊าซเรือนกระจกอย่างจริงจัง นอกจากนี้จะทบทวนที่มีส่วนร่วมซึ่งมีความชำนาญในการปรับตัว และแก้ปัญหา เข้ามาเป็นพี่เลี้ยงให้กับประเทศไทย ซึ่งจะช่วยเพิ่มศักยภาพให้กับทั้งภาคส่วนของประเทศไทย และภาคส่วนของอาเซียน ให้สามารถเดินหน้าไปด้วยกันได้อย่างมั่นคงต่อไปในอนาคต

นายจักกนิษฐ์ คณานุรักษ์

ผู้อำนวยการศูนย์ซีไอทีซี กล่าวว่า ทางรัฐบาลญี่ปุ่นได้ให้ความสำคัญกับเรื่องการพัฒนาศักยภาพ และนโยบายในการให้การสนับสนุนกิจกรรมด้านการพัฒนาศักยภาพเกี่ยวกับเรื่อง การเปลี่ยนแปลงสภาพภูมิอากาศ ให้กับประเทศกำลังพัฒนาจำนวน 14,000 คน ภายในเวลา 3 ปี โดย ศูนย์ซีไอทีซีก็เป็นหนึ่งในกิจกรรมที่ทางรัฐบาลญี่ปุ่นให้การสนับสนุน

ขณะที่ มีสเตอร์ แลรี่ มารามีส

ผู้แทนจากสำนักงานเลขาธิการอาเซียน กล่าวว่า ภูมิภาคอาเซียน เป็นพื้นที่ที่เสี่ยงต่อผลกระทบจากการเปลี่ยนแปลงสภาพภูมิอากาศ จึงมีความจำเป็นเร่งด่วนที่ควรจะทำการพัฒนาไปสู่สังคมคาร์บอนต่ำ ซึ่งควรที่จะร่วมมือกันระหว่างในภูมิภาคในทุกระดับ ไม่ว่าจะเป็นระดับนโยบาย ระดับปฏิบัติการ นักวิจัยหรือภาคการศึกษาก็ตาม

ทั้งนี้ศูนย์ซีไอทีซีเป็นประโยชน์ต่ออาเซียนมาก เพราะการให้ความรู้ด้านการเปลี่ยนแปลงสภาพภูมิอากาศทั้งการลดก๊าซเรือนกระจก และการปรับตัวต่อการเปลี่ยนแปลงสภาพภูมิอากาศเป็นเรื่องที่สำคัญ และเป็นสิ่งแรกที่ควรทำ นอกจากนี้ การสร้างและพัฒนาเครือข่ายก็เป็นกิจกรรมที่สำคัญมากๆ ที่ควรให้การสนับสนุน รวมถึงเสนอแนะว่า การสร้างความตระหนักรู้ และการทำการศึกษาสัมพันธ์ต่อประชาสังคมก็เป็นกิจกรรมหลักที่ศูนย์ควรให้ความสำคัญ

ผู้เชี่ยวชาญเดือนอากาศสุดชั่ว ทำ ‘ขาดแคลนอาหาร’ รุนแรง

ลอนดอน – ผู้เชี่ยวชาญเดือนสภาพอากาศ รุนแรง ทำขาดแคลนอาหารรุนแรงบ่อยครั้งขึ้น แนะนำนาชาติจัดทำแผนรับมือ

ผู้เชี่ยวชาญอังกฤษกับสหรัฐเตือนว่า สภาพอากาศรุนแรงอย่างพายุที่รุนแรง ภัยแล้ง และคลื่นความร้อน จะเป็นสาเหตุ ให้เกิดการขาดแคลนอาหารรุนแรงขึ้นเพราะ เกิดการเปลี่ยนแปลงด้านภูมิอากาศและระบบ จัดหาอาหารในโลก

แรงกดดันต่อการจัดหาอาหารในโลก มีอยู่มาก ประกอบกับสภาพอากาศสุดชั่ว ก็เกิดขึ้นบ่อยครั้ง จนมีแนวโน้มจะทำให้การ ขาดแคลนอาหารที่เคยเกิดขึ้น 1 ครั้งในรอบ ศตวรรษ อาจเกิดขึ้นทุกๆ 30 ปี

รายงานนี้จัดเตรียมโดยคณะทำงาน เฉพาะกิจสภาพอากาศสุดชั่วสหรัฐ-อังกฤษ และความยืดหยุ่นระบบอาหารโลก เนื้อหา ในรายงานยังเตือนเกี่ยวกับการที่ประเทศ ต่างๆ รับมือผลผลิตที่ลดลง อย่างการ ห้ามส่งออก-นำเข้าอาหารหรือพืชผล

บางชนิด ซึ่งการกระทำดังกล่าวเสี่ยงที่จะทำให้ ปัญหารุนแรงมากขึ้นและดันราคาอาหารให้ พุ่งขึ้น

ผู้เชี่ยวชาญได้ศึกษาการผลิตพืชโคจภัณฑ์ สำคัญที่สุดในโลก ได้แก่ ข้าวโพด ถั่วเหลือง ข้าวสาลี และข้าว พร้อมศึกษาว่าภัยแล้ง น้ำท่วม และพายุอาจมีผลกระทบต่อ การผลิตพืชผลในอนาคตอย่างไร และเนื่องจากการเพาะปลูกพืช 4 อย่างเหล่านี้มาจาก ไม่กี่ประเทศ อย่างจีน สหรัฐ และอินเดีย ดังนั้นสภาพอากาศสุดชั่วใน 3 พื้นที่ดังที่ กล่าวมา จะมีผลกระทบมากที่สุดต่อการ จัดหาอาหารในโลก

รายงานแนะนำให้นานาชาติจัดทำแผน รับมือและพัฒนาวิธีการลดผลกระทบ การจัดหาที่ลดลงได้อย่างถูกต้อง พร้อม แนะนำให้ภาคเกษตรปรับตัวมากขึ้นเพื่อรับมือ ภูมิอากาศเปลี่ยนแปลง รวมถึงเพิ่มศักยภาพ การผลิตเพื่อรองรับความต้องการในโลก ที่มากขึ้น

ทหาร-คร. แนนปารีสคুমเข้มประชุมโลกร้อน

เมื่อ 29 พ.ย. นายเฟร็องซัวส์ โอล็องด์ ประธานาธิบดีฝรั่งเศส ระดมกำลัง ทหารและตำรวจ 2,800 นายอารักขาสถานที่จัดการประชุมสุดยอดผู้นำโลก ว่าด้วยสภาพอากาศเปลี่ยนแปลง ซึ่งสหประชาชาติ (ยูเอ็น) และรัฐบาลฝรั่งเศส ร่วมกันจัดขึ้นที่กรุงปารีสตั้งแต่วันที่ 30 พ.ย.-11 ธ.ค. โดยมีผู้นำจาก 150 ประเทศทั่วโลกเข้าร่วมการประชุมด้วย ขณะที่ทหารและตำรวจอีก 6,300 นาย จะกระจายกำลังรักษาความสงบในจุดต่างๆ ที่เป็นเขตชุมชน หรือพื้นที่จัดการ ชุมนุมของกลุ่มนักเคลื่อนไหวด้านสิ่งแวดล้อม ซึ่งประกาศจะชุมนุมในกรุง ปารีสเพื่อกดดันผู้นำโลกให้ลงนามรับร่างข้อตกลงเพื่อลดการปล่อยก๊าซที่เป็น สาเหตุของปรากฏการณ์เรือนกระจกและภาวะโลกร้อน

ขณะเดียวกันมีรายงานว่ากลุ่มนักอนุรักษ์สิ่งแวดล้อมในหลายประเทศ ทั้งออสเตรเลีย นิวซีแลนด์ ฟิลิปปินส์ ญี่ปุ่น บราซิล เกาหลีใต้ สหรัฐฯ ยูเครน และเม็กซิโก รวมตัวกันเดินขบวนเรียกร้องให้ประชาชนตระหนักถึง ผลกระทบของปัญหาสภาพอากาศเปลี่ยนแปลงที่เกิดขึ้นในภูมิภาคต่างๆ ทั่วโลก พร้อมระบุว่ารัฐบาลต้องกำหนดนโยบายต่อสู้ภาวะโลกร้อนอย่างจริงจัง เพราะเป็นต้นตอที่ทำให้ภัยธรรมชาติรุนแรงและแปรปรวนเพิ่มขึ้นในช่วง ทศวรรษที่ผ่านมา และต้องกำหนดกรอบเวลาในการร่วมมือกันควบคุมไม่ให้ อุณหภูมิเฉลี่ยทั่วโลกเพิ่มสูงขึ้นเกิน 2 องศาเซลเซียส.



แทมที่—ชาวคนหนึ่งเดินถือป้ายรณรงค์ ผ่านรองเท้าหลายร้อยคู่ที่จัดสรรหาไว้ที่กรุง ปารีสของฝรั่งเศสการวางรองเท้าขึ้นเพื่อเป็นสัญลักษณ์ เพราะถูกห้ามการชุมนุมหลังเหตุโจมตีกรุงปารีส และมีขึ้นก่อนประชุมผู้นำโลกร้อนของยูเอ็น (เอพี)

ENVIRONMENT

Govt looks to cut down on greenhouse gases

PARITTA WANGKIAT

Thailand plans to commit to cutting greenhouse gas emissions 7-20% by 2020 during the 2015 Climate Change Conference in Paris later this year, a senior government official says.

Prasert Sirinaporn, director of the Climate Change Management and Coordination Division, at the Natural Resources and Environment Ministry, said the planned reduction, or Intended Nationally Determined Contributions (INDCs), is still under negotiation with various parties and should be finalised by October.

The climate-change conference, or COP21, will be held from Nov 30 to Dec 11 in Paris, France.

Thailand hasn't yet finalised its reduction target in the energy and transport sectors, Mr Prasert said, adding "we don't want to propose a target that we can't meet".

The commitment is voluntary as Thailand has no obligation to make a reduction.

He was speaking recently at a climate change seminar at the French embassy.

The cost of meeting the 7% target — equal to 23 million tonnes of greenhouse gases, based on an estimation of greenhouse gas emissions from the ministry's last survey in 2005 — would be the responsibility of the government, with additional assistance from local business operators on a voluntary basis.

The 20% reduction will require international financial assistance, he said.

Measures to achieve the target are likely to

include increasing renewable energy use and forest cover to 40%, and reducing emissions in many areas such as power generation, transport, construction, agriculture, industry and urban management.

The Thai government is about to implement plans to tackle climate change up to 2050, and aims to prepare the country to adapt to climate change and take the path of low-carbon growth.

The roadmap for climate change was endorsed by the cabinet, and is now under scrutiny of the National Legislative Assembly, Mr Prasert said.

Despite the proposed emission reduction commitment, the Prayut Chan-o-cha government is being criticised by environmentalists over plans to build more coal-fired power plants, especially in Krabi and Songkhla provinces.

The Power Development Plan (PDP) 2015-2036, in particular, proposes nine coal-fired power plants, which will increase power generated by fossil fuels from 15% to 20-25%.

Mr Prasert insisted the PDP could still be amended.

Faikharn Harnnarong, a coordinator of the Thai Climate Justice Working Group, doubted Thailand could achieve any reduction goal since the country still lacks substantial measures.

Philippe Zeller, COP21 ambassador for Asia, said shifting to a low carbon economy doesn't mean shifting to less productive one.

"A green economy will provide opportunities ... for developing new technology and creating new jobs," he said.

CLIMATE CHANGE

Kingdom aims to cut emissions 25%

PARITTA WANGKIAT

Thailand will clarify its commitment to reduce greenhouse gas emissions by 20-25% within 2030 at the 2015 United Nations Climate Change Conference, or COP 21, in Paris next month.

Prasert Sirinaporn, director of Climate Change Management and the Coordination Division of the Office of Natural Resources and Environmental Policy and Planning, said Thailand submitted its new climate action plan to the UN Framework Convention on Climate Change (UNFCCC) last month.

Thailand proposed its Intended Nationally Determined Contributions (INDCs) plan which pledged to reduce 20-25% of greenhouse gas emissions by 2030.

The 20% is a goal to be achieved by the country's resources alone while the additional 5% will require international support in terms of finance, know-how and technology.

Speaking at a recent meeting at the Delegation of the European Union (EU) of Thailand's headquarters, he said four sectors which will focus on reducing emissions at the beginning of the plan are energy, transport, waste and industry.

The convention assessed INDCs submitted by 170 countries including Thailand. The plans have the capability of limiting the forecast temperature rise to around 2.74C by 2100. The forecast doesn't meet the target of 2C, which some scientific studies have found to be the level that will prevent severe consequences of climate change.

Speaking at the meeting, Luisa Ragher, minister-counsellor, deputy head of

delegation of the European Union to Thailand, said the Paris conference is likely to reach an international climate agreement. The agreement will keep global average temperature increase below 2C.

Global atmospheric carbon dioxide concentrations have stayed higher than 350 parts per million — the upper safety limit— since early 1988, she said, citing scientific findings.

The EU, comprising 28 countries, has pledged to reduce 40% of its greenhouse gas emissions by 2030, she said.

It plans to implement policies to achieve the target through three means: by increasing renewable energy use by more than 27%, increasing energy efficiency by more than 27%, increasing interconnectivity by 15%.

The EU even has an ambitious plan to cut emissions to zero by 2100, she said.

Between 1990 and 2012, GDP increased by 44% while emissions fell 18%, which proves that economic growth can be achieved alongside cutting greenhouse gas emissions, Ms Ragher said.

One of the main policies, she said, is increasing renewable energy use as the EU relies heavily on imported fossil fuels.

She said the success was also due to the involvement of the business sector and citizens.

The EU has called for other nations to set a long-term goal to solve climate problems, in line with the latest science has to offer.

Strict transparency and accountability rules are needed to create confidence and trust that the countries party to the agreement will deliver on their commitments, she said.

ปะทะเดือด-ชาติยากจนหัวนถูกทิ้งเวทีโลกร้อน

การประชุมสหประชาชาติว่าด้วยสภาพภูมิอากาศโลกเปลี่ยนแปลง (COP21) ที่กรุงปารีส ฝรั่งเศส เริ่มขึ้นเมื่อ 30 พ.ย. และจะต่อเนื่องไปถึง 11 ธ.ค. โดยมีผู้แทนเจรจาจาก 195 ประเทศ และผู้นำจาก 147 ประเทศ รวมทั้งผู้นำสหรัฐฯ จีน รัสเซีย อินเดีย และยุโรปเข้าร่วม เพื่อหาทางบรรลุข้อตกลงลดการปล่อยก๊าซเรือนกระจก และควบคุมอุณหภูมิโลกไม่ให้ร้อนขึ้นเกิน 2

องศาเซลเซียสจากระดับก่อนยุคปฏิวัติอุตสาหกรรม

การประชุมมีขึ้นท่ามกลางมาตรการรักษาความปลอดภัยสุดเข้มงวด หลังกองกำลังรัฐอิสลาม (ไอเอส) โจมตีกรุงปารีส 6 จุด เมื่อ 13 พ.ย. มีผู้เสียชีวิต 130 คน โดยฝรั่งเศสระดมตำรวจทหาร 2,800 นายอารักขาศูนย์การประชุมที่เซนต์เดนิส์อีก 6,800 นายที่กรุงปารีสและสั่งห้ามผู้สื่อข่าวเป็นภัยต่อความมั่นคงเข้าประเทศกว่า 1,000 คน ขณะที่มีการชุมนุมประท้วงตามเมืองใหญ่ๆ ใน 175 ประเทศทั่วโลก เมื่อ 29 พ.ย. เรียกร้องให้เหล่าผู้นำโลกบรรลุข้อตกลงต่อสู้สภาพอากาศเปลี่ยนแปลง ซึ่งส่งผลให้เกิดภัยธรรมชาติทั้งพายุ น้ำท่วม ระดับน้ำทะเลสูงขึ้น รุนแรงขึ้นเรื่อยๆ ซึ่งองค์กร "อวาซ" แกนนำจัดชุมนุมเผยว่า มีผู้เข้าร่วมกว่า 870,000 คน

ที่กรุงปารีสฝูงชนจับมือกันเป็นโซ่มนุษย์ยาวกว่า 2 กม. แต่วันช่วงไว้ 100 ม. ที่โรงละครบาสกาส์ 1 ใน 6 จุดที่ถูกโจมตี มีผู้เสียชีวิตมากที่สุด 90 คน ส่วนการประชุม 2 จุดที่เมืองโตที่ถูกสังกเล็กด้วยเหตุสุดด้านความปลอดภัยตำรวจยิงแก๊สน้ำตา และปะทะกับกลุ่มฝ่ายซ้ายจัดต่อต้านทุนนิยมกว่า 100 คนที่ปะปนอยู่ในกลุ่มผู้ประท้วงในปารีส มีผู้ถูกจับกุมถึง 317 คน ซึ่งประธานาธิบดีฟรองซัวส์

โอลลองด์ ประณามพวกซ้ายจัดผู้ก่อเหตุว่า "อัปยศ" นอกจากนี้ มีนักเคลื่อนไหวถูกสังกกับบริเวณอีก 24 คน กลุ่มนักเคลื่อนไหวยังส่งรองเท้าหลายพันคู่ หนักกว่า 4 ตันไปวางที่จัตุรัสเคอ ลารีฟับลิกา รวมทั้งรองเท้าของสมเด็จพระสันตะปาปาฟรานซิส ที่ 2 และนายบัน คี มูน เลขาธิการสหประชาชาติ

ด้านประธานาธิบดีบารัค โอบามาแห่งสหรัฐฯ ประธานาธิบดีโอลลองด์ และนางแอนน์ ฮิดัลโก นายกรัฐมนตรีกรุงปารีส ไปร่วมวางพวงหรีดที่หน้าโรงละครบาสกาส์ พร้อมเป็นสวบนั่ง 1 นาที ไว้รำลึกให้ผู้เสียชีวิต โดยตำรวจปิดถนนรอบๆ และส่งเฮลิคอปเตอร์บินรักษาความปลอดภัย

ส่วนผู้แทนของประเทศยากจนหัวนวิตกว่า จะถูกทิ้งไว้ข้างหลังในการผลักดันข้อตกลงต่อสู้สภาพภูมิอากาศเปลี่ยนแปลง ขณะที่ยูเอ็นเผยว่า ในปี 2558 อุณหภูมิโลกโดยเฉลี่ยจะสูงขึ้นถึง 6 องศาเซลเซียสจากระดับก่อนปฏิวัติอุตสาหกรรม หรือราวครึ่งหนึ่งของที่ตั้งเป้าไว้ และว่าแผนควบคุมก๊าซเรือนกระจกของประเทศต่างๆ ทั่วโลก แม้จะถูกปฏิบัติตามเต็มที่ อุณหภูมิโลกก็ยังมีแนวโน้มจะสูงขึ้นถึง 2.7-3.5 องศาเซลเซียส ซึ่งนั่นคือสัญญาณอันตราย.

GLOBAL WARMING

Thais refuse to help fund climate efforts

PARITTA WANGKIAT

PARIS: The Thai climate conference delegation is refusing to commit to any financial assistance for undeveloped countries' efforts to combat climate change, rejecting a proposal by developed countries that developing countries should also contribute.

Deputy delegation leader to the Paris talks Praset Sirinaporn said Thailand believed developed countries should accept the responsibility for funding developing countries' efforts to reduce greenhouse emissions.

His comment came at the UN climate change conference (COP21) in Paris.

Participants are still debating the draft text of a new climate agreement, which includes a provision backed by the European Union and the United States that climate finance shall be provided by developed countries and other countries "in a position to do so".

The 134 developing countries of the G77 and China object to the wording, insisting developed countries have an obligation to provide the funding as they were historically responsible for greenhouse gas emissions.

The Copenhagen conference in 2009 asked developed countries to raise climate funds of US\$100 billion (3.5 trillion baht) a year by 2020 to help developing countries make the switch to low-carbon economies. It has not been agreed how much money will be raised this year. About \$62 billion was pledged in 2014.

A final text of the draft agreement is expected to emerge by Friday.

As Thailand will chair the G77 next year, Mr Praset said, responsibility will weigh

heavily on Bangkok if the Paris agreement does not conclude with a "true agreement".

As Thailand has pledged to cut greenhouse gas emissions 20-25% by 2030, government funding will be required. But to achieve that goal, international climate finance is also needed, he said.

Thailand is already slated to receive 14.7 million euros (about 570 million baht) from the Nationally Appropriate Mitigation Actions fund to promote energy efficient refrigeration and air conditioning devices.

Indonesian climate delegation chief Nur Masripatin said in Paris on Monday the slow progress of the talks was largely due to how obligations are divided among developed and developing countries based on their "common but differentiated responsibilities and respective capabilities".

Developed countries must realise that the ability of developing countries to respond differs, she said.

She said many developing countries depend on the availability of climate financial support for capacity building and technology transfers.

She said the term "in a position to do so" could refer to a number of solutions, but they must meet on a middle track between developed and developing countries.

US Special Envoy for Climate Change Todd Stern said the term referred to countries acting on a "voluntary basis".

Developed countries must push ahead with financial aid, but developing countries which have the capability should also contribute, so an ambitious climate target can be achieved, he said.

ร่างโลกร้อนสรุปผลไม่ได้ ขอประชุมต่ออีกวัน

2 การประชุมรัฐภาคีกรอบอนุสัญญาสหประชาชาติว่าด้วยสภาพภูมิอากาศเปลี่ยนแปลง สมัยที่ 21 หรือที่เรียกว่าคือป 21 ในกรุงปารีส ฝรั่งเศส ที่ควรจะบรรลุข้อตกลงแก้ปัญหาโลกร้อนในวันที่ 11 ธ.ค. กลับต้องประสบปัญหาซ้ำรอย

อีกครั้งหลังผู้แทนเจรจาจาก 95 ประเทศไม่สามารถบรรลุข้อตกลงร่วมได้ และทำให้การประชุมต้องยืดเยื้อต่อไปในวันที่ 12 ธ.ค. เพื่อแก้ไขร่างข้อตกลงจนกว่าทุกฝ่ายจะพึงพอใจ

นายโลรองด์ ฟาน เปียส รัฐมนตรีต่างประเทศฝรั่งเศส ตัวแทนชาติเจ้าภาพการประชุมเปิดเผยว่า ร่างข้อตกลงจะถูกเสนอต่อที่ประชุมในวันที่ 12 ธ.ค. เกินระยะเวลาการประชุมมาอีก 1 วัน เพราะว่อยากจะทำให้ครอบคลุม ตามความเห็นจากทุกชาติ เพื่อให้เป็นร่างที่ทุกคนร่วมกันทำ หลังจากร่างที่สรุปผลออกมาวันที่ 10 ธ.ค. ตัวแทนจากบางประเทศยังแย้งอยู่ว่าเป็นการเปิดโอกาสให้ชาติที่ร่ำรวยผลักภาระการรับมือปัญหาโลกร้อนไปให้ชาติกำลังพัฒนา ขณะที่สำนักข่าวต่างประเทศรายงานด้วยว่า ตัวแทนจากจีน สหรัฐฯ รวมถึงบางประเทศอยู่ระหว่างถกเถียงกันว่าใครควรจะรับภาระเท่าไรในการรับมือสภาพอากาศเปลี่ยนแปลง และใครจะต้องควักกระเป๋าเท่าไรในการเปลี่ยนไปใช้พลังงานสะอาดซึ่งวันเดียวกัน นายสี จิ้นผิง ประธานาธิบดีจีน และนายบารัค โอบามา ประธานาธิบดีสหรัฐฯ ได้หารือผ่านทางโทรศัพท์ พูดถึงความร่วมมือรับมือปัญหาโลกร้อน แต่ไม่ได้

เปิดเผยรายละเอียดเพิ่มเติม

สำหรับร่างข้อตกลงฉบับใหม่ ที่จะถูกเสนอต่อที่ประชุมในวันที่ 12 ธ.ค. มีรายละเอียดครอบคลุมเรื่องการเงิน ที่ภายในปี 2563 แต่ละประเทศไม่ว่าภาครัฐหรือเอกชน จะต้องระดมทุนให้ได้เกิน 100,000 ล้านดอลลาร์สหรัฐฯ ต่อปี เพื่อมาช่วยเหลือประเทศกำลังพัฒนา ในการจำกัดการปล่อยก๊าซเรือนกระจก ปรับตัวรับมือน้ำท่วม คลื่นความร้อน และระดับน้ำทะเลที่สูงขึ้น เรื่องเป้าหมายระยะยาวที่จะควบคุมอุณหภูมิโลกไม่ให้ร้อนขึ้นเกิน 2 องศาเซลเซียส หรือจะให้ดีกว่านี้คือไม่เกิน 1.5 องศาเซลเซียส ไปจนถึงการควบคุมปล่อยก๊าซเรือนกระจกให้อยู่ในระดับที่ไม่ส่งผลกระทบต่อในกรอบเวลาหลังปี 2593

ส่วนรายละเอียดในร่างที่ยังมีปัญหา มีทั้งเรื่องกลุ่มชาติกำลังพัฒนาต้องการให้สร้างกลไกขึ้นมาช่วยเหลือประเทศที่ได้รับผลกระทบจากปัญหาโลกร้อน แต่ถูกคัดค้านพอพูดถึงการช่วยเหลือค่าเสียหาย หรือเรื่องที่ว่ากลุ่มชาติพัฒนาควรจะเป็นผู้นำในการลดก๊าซเรือนกระจกและการระดมทุนช่วยเหลือต่อไป ซึ่งก็มีการแย้งกลับว่าในกลุ่มชาติพัฒนาเองก็มีประเทศที่แข็งแรงไม่เท่ากับคนอื่น.

Appendix 37: The descriptive analysis of news coverage samplings from three newspapers during 1 June – 31 December 2017 are demonstrated in following charts and table.

**Chart A: the articles found from full-text search engine seperated by type
total of 481 articles**

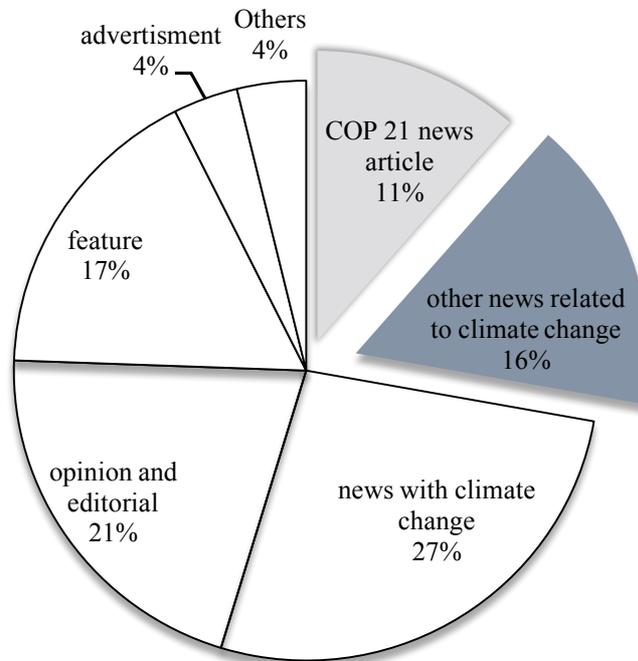


Chart B: the placement of the news articles related to climate change total of 124 news articles in three newspapers

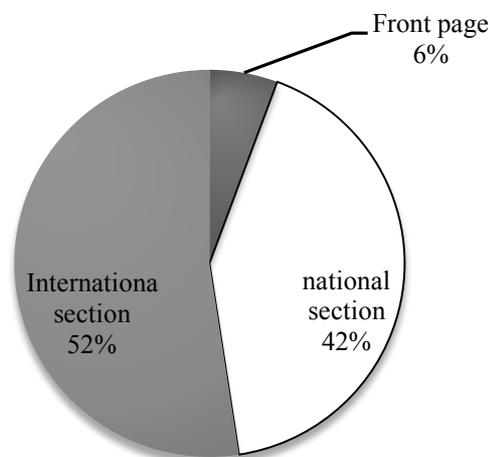


Table C: The amount of news articles related to climate change in three newspapers separated by the production type.

News article related to climate change	production			sum
	translated	in-house	N/A	
<i>Bangkok post</i>	9	7	0	16
<i>Krungthepturakit</i>	13	15	2	30
<i>Thairath</i>	1	12	14	27
sum	23	34	16	73

Chart D: Type of news sources that are mentioned in news related to climate change total of 124 articles from three newspapers

