Press freedom and environmental protection

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Environmental protection is vital if countries are to conserve the natural capital and ecosystem services on which 21st century societies depend, and is enshrined within the international treaties, policies and legislation that support the United Nations' Sustainable Development Goals (United Nations 2019). Progress towards these goals and others such as the IPCC's targets for reduction in greenhouse gasses and IPBES's reversal of landscape degradation requires monitoring by governments, NGOs, and by civil society at large. A free and independent press is a vital part of this monitoring process if democracies are to hold governments and corporations to account, as investigative journalism has demonstrated in high profile cases such as *The Guardian* newspaper's exposé in 2009 of toxic waste dumping in Ivory Coast by the multinational company Trafigura. Journalists also have a role to play in promoting issues and campaigns, for example reduction in single use plastic, pollinator conservation, wildlife crime, and climate change. In this regard the relationship between NGOs and the press is vital. NGOs campaign on issues, but usually to niche audiences, whereas press coverage can elevate public concern over an issue, leading to pressure for political change. The EU's moratorium on neonicotinoid pesticides is just the most recent example of a tradition that includes the ban on CFCs following concerns about ozone layer depletion and restrictions on the use of DDT.

We hypothesised that there is a causal link between press freedom and environmental protection, a relationship that has been examined regionally - see for example Wang's (2005) study of the role of print media in the Pearl River Delta - but never previously been evaluated at an international level. This relationship was tested using two robust, global, country-level measures: the World Press Freedom Index (WPI) by Reporters Sans Frontières (RSF) (2018) and the Environmental Performance Index (EPI) developed jointly by Yale University, Columbia University, and the World Economic Forum (Wendling et al. 2018).

The World Press Freedom Index uses an expert questionnaire plus data on abuse and violence towards journalists in each country. Global in approach, it brings together qualitative and quantitative data from 180 countries to produce an analysis of press freedom that reflects indicators such as government pressure, self-censorship, and levels of violence towards journalists. The Environmental Performance Index includes twenty indicators that cover all aspects of environmental health and ecosystem function and protection, including air and water quality, pollution, protection of biodiversity, deforestation, the state of fisheries, greenhouse gas emissions, and sustainable agriculture. Both the WPI and the EPI are produced annually by their respective organisations.

As predicted there is a significant relationship between the degree of press freedom in a country and the level of environmental performance (Figure 1).

Countries that suppress media activities and abuse their journalists tend to score low on the EPI, and thus the protection they give to the natural environment and to the health of a populace. Conversely, countries with a culture of press freedom also tend to do well in terms of environmental performance, protecting both ecosystems and human populations. This relationship between press freedom and environmental performance is non-linear: below a critical point environmental performance is low regardless of the level of press freedom. Above that point, environmental performance rapidly increases as a function of press freedom.

It is possible for countries to have a relatively restrictive press yet have a mid-ranking environmental performance; in Figure 1, Turkmenistan, Cuba and Russia are examples of this. Conversely some countries have a high degree of press freedom yet a poor environmental performance, for example Nepal, Madagascar and India. However, no country has both a highly restricted press and good environmental performance: a free press is a prerequisite for a country to protect its environment and peoples.

Although the pattern is clear from the data, and we would argue for an indirect causal link between the two, clearly there is a large amount of the variation in a country's environmental performance that is not explained by press freedom. Many drivers affect the ability or desire of governments and large corporations to protect the environment, including affluence, level of education, warfare, public awareness, NGOs, legal frameworks and their enforcement, corruption, and corporate social responsibility of businesses. Some of these are

clearly influenced by the ability of journalists to investigate and report on failures of environmental protection, but others are beyond the normal influence of the press. The UNDP's Inequality-adjusted Human Development Index (IHDI) captures some of these variables by combining measures of human health and longevity, education, and standard of living (United Nations Development Programme 2019) and has been mapped onto each country in Figure 1. Those countries with a higher IHDI tend to enjoy better environmental conditions and have greater press freedom, but that is by no means inevitable and exceptions exist across the range of IHDI values. One other important source of variation is that journalism differs in its nature even between countries with a high degree of press freedom. If the content that is being published is effectively "churnalism" (Davies 2008), because the news organisations lack the resources to deliver investigative reporting, then one might expect a poor relationship between what appears to be a free press and environmental protection.

Countries for which an assessment has been made of press freedom but for which environmental data are not available are a source of concern. For example, Syria (WPI=81.49) and North Korea (WPI=84.98, the highest value of any country) both lack EPI evaluations due to those countries' particular circumstances. We would predict that the environments in which the populations of those countries exist will be poor indeed, and this is backed up by local reports (Hayes 2009).

We estimate that just over one quarter of the variation in the EPI of countries is explained by press freedom. That such a compelling signal of the role of journalists comes through the data is indicative of the value of having a strong and independent press. It is therefore worrying that press freedoms are being increasingly restricted in many countries. This was highlighted in a recent RSF report (Reporters Sans Frontières 2016) but the situation is, if anything, getting worse: there have been more recent accounts of journalists being excluded from briefings by government environmental bodies in the USA (Walters 2018) and beaten up while investigating allegations of pollution in China (Committee to Protect Journalists 2018). Indeed it is estimated that 40 journalists were murdered because of their coverage of environmental issues between 2005-16 (Freedman 2018). This should concern all journalists and the public: restrictions on press freedom within a country have the potential to result in a deterioration in the health of both people and the ecosystems on which they depend.

References

Committee to Protect Journalists (2018) Reporters beaten, robbed while investigating allegations of pollution. https://cpj.org/2018/02/reporters-beaten-robbed-while-investigating-allega.php

Davies, N (2008) Flat Earth News, Vintage.

Freedman, E (2018) In the Crosshairs: The Perils of Environmental Journalism Paper presented at the Communicating Science, Health, Environment and Risk Division, Association for Education in Journalism and Mass Communication, August 8, 2018. http://knightcenter.jrn.msu.edu/wp-content/uploads/2018/08/AEJMC-In-the-Crosshairs-as-presented.pdf

Hayes, P (2009) Unbearable Legacies: The Politics of Environmental Degradation in North Korea. The Asia-Pacific Journal 7: 1-9

Reporters Sans Frontières (2016) Environmental journalism in an increasingly hostile climate. https://rsf.org/en/news/environmental-journalism-increasingly-hostile-climate

Reporters Sans Frontières (2018) World Press Freedom Index https://rsf.org/en/ranking/2018

United Nations (2019) United Nations' Sustainable Development Goals https://www.un.org/sustainabledevelopment/sustainable-development-goals/

United Nations Development Programme (2019) UNDP Inequality-adjusted Human Development Index http://hdr.undp.org/en/content/inequality-adjusted-human-development-index-ihdi

Walters J (2018) Journalists barred from EPA summit on harmful water contaminants. https://www.theguardian.com/media/2018/may/22/journalists-barred-from-epa-summit-on-harmful-water-contaminants

Wang, Q-J (2005) Transparency in the Grey Box of China's Environmental Governance: A Case Study of Print Media Coverage of an Environmental Controversy From the Pearl River Delta Region. The Journal of Environment & Development 14: 278-312

Wendling, Z. A., Emerson, J. W., Esty, D. C., Levy, M. A., de Sherbinin, A., et al. (2018). 2018 Environmental Performance Index. New Haven, CT: Yale Center for Environmental Law & Policy. https://epi.envirocenter.yale.edu/

Figure legend

Figure 1: The relationship between the World Press Freedom Index (WPI) and the Environmental Performance Index (EPI) for 168 countries in 2017. Note that the WPI has been rescaled as 100-WPI. A LOESS regression has been fitted with a ribbon showing 99% confidence interval. LOESS cannot be used to calculate R^2 but the closest approximation to this relationship, a two-order polynomial of the form $y=0.0002x^2-0.0165x+0.849$, gives an $R^2=0.26$. The UNDP's Inequality-adjusted Human Development Index (IHDI) has been assigned to each country. In the few cases where a country's IHDI has not been calculated, the average for the region in which that country is situated has been used. See appendix 1 for a full list of country codes and the data.