

Manzo K, Padfield R.

[Palm Oil Not Polar Bears: Climate Change and Development in Malaysian Media.](#)

Transactions of the Institute of British Geographers (2016)

DOI: 10.1111/tran.12129

Copyright:

This is the peer reviewed version of the following article, which has been published in final form at <http://dx.doi.org/10.1111/tran.12129>. This article may be used for non-commercial purposes in accordance with [Wiley Terms and Conditions for Self-Archiving](#)

Date deposited:

11/05/2016

Embargo release date:

12 July 2018

**Palm oil not polar bears:
Climate change and development in Malaysian media**

Abstract

To date, debates about climate change reporting in national media focus largely on Western democracies. We aim to broaden the scope for cross-national comparison by looking at climate change reporting in Malaysia – an emerging economy in the global South facing developmental tensions common to many, specifically an ambitious national climate change agenda in the face of an economy largely reliant on the extraction and export of primary commodities. Our questions are: How is climate change framed in Malaysian media? How do Malaysian narratives compare to those found elsewhere? How do climate change and development narratives interact in a ‘second tier’ emerging economy? And lastly, what do these interacting narratives say about the salience of neoliberal and North-South perspectives on climate change and development? To answer these questions, we undertook a content analysis of climate action stories published over a three-year period (2009-2011) in five English-language news sources. In addition to a high proportion of environmental-framed articles across all the news sources, our findings show that climate change has been framed as both a multi-scalar responsibility and a positive opportunity for two key stakeholders in development, i.e. neoliberal market forces and geopolitical actors keenly interested in restructuring the international political economy along lines reminiscent of the new international economic order (NIEO) demands of the 1970s. We label the key themes emergent from our analysis as climate capitalism and green nationalism (neither of which are unique to Malaysia) while demonstrating that debates about palm oil are particularly illustrative of the interaction of these themes in the Malaysian context. In the final section we suggest thinking of the interacting elements as a singular, structuralist model of green development – one reminiscent of discourses at work in other emerging economies.

Key words: media representation, climate change, Malaysia, content analysis, neoliberalism, new international economic order (NIEO), palm oil

1. Introduction

“Climate change is represented in highly varied manners at the national level...To date, almost all research on the communication of climate change has focused on Western social contexts and norms” (Billett 2010, 2)

This paper contributes to debates about climate change reporting in national media from a country so far overlooked by that burgeoning literature, namely Malaysia. As noted above, the focus has been largely on Western industrialised democracies. There are studies of media in the UK (Boykoff 2008; Doulton and Brown 2009; Doyle 2011), USA (Antilla 2005; Boykoff 2007a; Boykoff and Boykoff 2007; Zehr 2009), Italy (Pasquaré and Oppizzi 2012), Finland (Lyytimäki, & Tapio 2009) Canada (Ahchong and Dodds 2012), Holland and France (Dirikx and Gelders 2010a, 2010b), USA and UK (Boykoff 2007b), USA and Sweden (Shehata and Hopmann 2012), the European Union (Uusi-Rauva and Tienari 2010) and multi-country studies (O’Neill 2013; Painter 2010; Painter & Ashe 2012; Schmidt et al 2013).

Scholarship on media representations of climate change in the global South as a whole (see Shanahan 2009) and on particular countries therein are few in comparison. Studies have examined Mexico (Gordon et al 2010), Peru (Takahashi 2011; Takahashi & Meisner 2013) and a small number of countries in Asia, notably South Korea (Yun et al 2012), Bangladesh (Miah et al 2011), China (Wu 2009) and India (see Billett 2010; Boykoff 2010; Jogesh 2012; Thaker and Leiserowitz 2014).

Thus, our objective is to provide an authoritative account of discourses of climate change and development in Malaysia through evaluation of climate change frames in the Malaysian media over a three year period (2009-2011). We focus on four English-language newspapers and one popular news website that collectively represent a range of different interests, notably government forces, business elites, opposition groups and local communities. We are especially interested in: a) the salience of a North-South perspective on climate change in Malaysia; and b) the extent to which “the seemingly intractable problem of climate change has been reframed as an opportunity” for particular modes of development (Bailey et al 2011, 682).

In the past decades, Malaysia has experienced considerable economic development, such as rapid expansion of a consumer middle class; substantial growth based in part on manufacturing; and continued export-led development of primary commodities – notably palm oil (Padfield et al, in press). The multi-scalar tensions and contradictions associated with all this have included a global North-South dimension. Thanks to increasing demand for electricity, “Malaysia has been cited among the highest globally in growth of greenhouse gases (GHG) emissions” (Shamsuddin 2012, 384). As the second largest producer of palm oil in the world (after Indonesia), Malaysia has drawn critical scrutiny over its resource management, notably in anti-palm oil campaigns by Western NGOs. The European Union’s 2009 Renewable Energy Directive – enacted to help reduce carbon emissions by requiring that EU member countries achieve 20% of its total energy needs with renewable sources by 2020 – was thus a double-edged sword; it gave a fillip to domestic palm oil production since palm oil based biofuel can be classified as a renewable energy, yet expansion for new plantations via deforestation and cultivation of carbon rich peatlands is associated with high GHG emissions.

In global context, Malaysia is a major GHG emitter – the 29th largest country in terms of total carbon dioxide emissions between 1990 and 2013 (Olivier 2014) – but not a member of the BASIC (Brazil, South Africa, India and China) or BRICS (Brazil, Russia, India, China and South Africa) groups. Nor is it one of the top three actors identified by other countries as leaders on climate governance, i.e. the European Union (EU), the United States and China (Parker et al 2012). Malaysia is, however, a member of the G77 group of developing countries (along with China and India). The fourth key player in climate change negotiations (Parker et al 2012), the G77 formed around a shared identity and world view “which depicted the exploitation of the Third World as an inherent feature of the global economy” (Krasner 1985, 9). Its agenda for change was embodied in the 1974 Declaration for the Establishment of a New International Economic Order (NIEO) which argued for a model of global development rooted in “authoritative rather than market allocation of resources” (Krasner 1985, 11). Perceptions of national weakness and inability “to adjust internally to the pressures of global markets” bound the G77 together in collective calls for structural change (Krasner 1985, 11). Its so-called structuralist model of development (Roberts and Parks 2007) has been dismissed as “outdated” and unsuited to the achievement of “post-2015” Sustainable Development Goals (SDGs) (Hackenesch and Janus 2013, 1).

And yet, “new NIEO-style demands” are issuing from the United Nations Conference on Trade and Development (UNCTAD) (Aggarwal and Weber 2012, 2-3). Proposals spearheaded by China for technology transfer mechanisms within the United Nations Framework Convention on Climate Change (UNFCCC) were also consistent with the old NIEO. As noted by Conrad (2012, 449), the conviction that “technology transfer cannot be left to market forces” underpins China’s negotiating position. In India furthermore, widespread support for a “co-benefits paradigm” that aligns “climate change with domestic priorities of poverty alleviation and economic growth” (Thaker and Leiserowitz 2014, 115) co-exists with an older, “‘Third Worldist’ rhetoric” (Michaelowa and Michaelowa 2012, 587). The latter views climate change “primarily through a North-South perspective” (Billett 2010, 3-4) and emphasizes “sharp distinctions between developed and developing countries” in matters of responsibility for change (Thaker and Leiserowitz 2014, 113).

These studies reveal climate change narratives that are multi-scalar, engaging issues of global leadership, cooperation, responsibility and vulnerability as well as national identity and development. The bigger picture is one of debate and uncertainty about changing global relations and development agendas. India’s emergence “as a highly relevant player in international climate negotiations” (Michaelowa and Michaelowa 2012, 575) helps explain why “Indian coverage on climate change is triggered solely by [such] international drivers” (Schafer et al 2014, 169). China has been celebrated as a “bridge-builder between developed and developing nations;” a country with a “progressive agenda” of “multipolar developmentalism” aimed at mitigating structural inequalities (Clegg 2011, 461). On the other hand, the Chinese delegation to the Copenhagen climate negotiations of 2009 (‘COP15’) was much criticized, in part for “assuming ambiguous positions in order to keep all its options open” (Conrad 2012, 455). This reflects “China’s contradictory status in the world: it is simultaneously an economic superpower with a massive carbon footprint and a developing country” (Bello 2010, 5). In showing how Malaysia fits into this bigger picture, we answer the call “for further needed investigations in India, in other countries as well as in comparisons across countries and media platforms” (Boykoff 2010, 22).

Our research examines the following four questions: How is climate change framed in Malaysian media? How do Malaysian narratives compare to those found elsewhere? How do climate change and development narratives interact in a ‘second tier’ emerging economy? And lastly, what do these interacting narratives say about the salience of

neoliberal and North-South perspectives on climate change and development? In addressing these questions we show how climate change has been framed in relation to development as a positive opportunity, not only for neoliberal market forces but also for geopolitical actors keenly interested in restructuring the international political economy along lines reminiscent of the new international economic order (NIEO) demands of the 1970s. This raises bigger questions about the role of emerging economies in setting the terms of engagement for both climate change and development debates.

The paper proceeds as follows. Part one reviews the literature on climate change frames with four key issues in mind. These are: the spatial reach of the frames; the interests they serve; their connections (both explicit and implicit) to the concept of development; and their capacity for hybridisation and co-production, i.e. the extent to which climate change frames can blend into “hybrid constructs” reflecting novel “combinations of different forms of knowledge” (Zehr 2009, 83). The tabular summary of major climate change frames that concludes this part is drawn from existing literature. It shows the range of existing frames and forms the basis of the coding scheme used for analysis of our primary data.

Part two discusses the methods used for data collection, coding and analysis. Findings and discussion are presented in the third and longest part of the paper. We show how two key hybrid frames are multi-scalar; they index domestic interests and policies as well as a North-South (G77) perspective on climate change and development. One frame is climate capitalism; the other we label green nationalism in North/South context (and illustrate with reference to debates around biofuels trade and so-called vegetable oil politics). In the final section of part three, we suggest that the core elements from those frames add up to more than the sum of their parts, or two disparate narratives about climate change. Instead they can be seen as a singular perspective on development, one that we call a structuralist model of green development.

2. Climate change frames, media and development

The frame concept in media studies refers to “a storyline or unfolding narrative about an issue.” Frames can be single-issue, such as nuclear power, or “larger frames that transcend a

single issue” (e.g. a cost-benefit frame). There are also sub-frames, which can be aggregated and disaggregated into larger and smaller issue-frames (Gamson et al 1992, 385).

Table 2 – which is adapted slightly from Manzo (2012) – identifies the larger frames and sub-frames analysed in previous climate change studies. The climate change concept has clearly changed since the 1980s, when “an obscure technical concern” with global warming began to exceed the boundaries of scientific debate (Demeritt 2001, 307). Since then, climate change has combined in various ways “with other forms of knowledge and value orientations” (Zehr 2009, 83). It has become not one storyline (or narrative) but many, each of which constructs the reality and meaning of climate change in different ways.

[insert table 2]

The multiplication of climate change frames connects to concepts of frame transformation (Gamson et al 1992) and hybridisation or co-production (Zehr 2009). Different frames engage different audiences (Hulme 2009) and reflect a variety of changeable interests, value orientations and agendas. They can multiply through processes of contestation and ‘sponsorship’, i.e. due to political struggles between “competing sponsors of meaning” (Gamson et al 1992, 385). Such struggles can occur *within* frames as well. The development/humanitarian frame, for example, narrates climate change as an issue of inequality. However, ‘development’ can mean national development and/or human (or people-centred) development. The idea of state-led development – which, like the neo-realist frame, narrates the state as the key actor in international relations – is indicative of the former whereas community development and rights-based development are more in keeping with the latter.

Understandings of core values such as ‘justice’ and ‘fairness’ vary significantly as well. Climate change can be viewed as a class-based issue of injustice and a problem of unequal relations of power between rich and poor people (e.g. Barnett 2007). It can also be seen from a global North-South perspective that cites unequal national entitlements and the “inherently unequal structure of the world system” (Timmons and Parks 2007, 14 and 30). A geopolitical consequence is international tensions “between...claims for inter-state justice, as was the case from Bandung to the NIEO, and justice claims that privilege not states but individuals as human beings deserving of human rights” (Nesadurai 2005, 21-22). A notable

exponent of the traditional NIEO view is China. In climate negotiations, China is “the most important advocate of the developing world regarding climate justice and the champion of the ‘common but differentiated responsibilities’ principle” (Conrad 2012, 442).

Different frames can combine. A study of changing US media coverage of climate change argues that the once-dominant scientific uncertainty frame has been joined by a hybrid environmentalist/economic frame – an integration of economic development and climate change in keeping with ecological modernisation theory (Zehr 2009). Ecological modernisation frames environmental problems “as issues that are...solvable within the context of existing institutions and power structures and continued economic growth” (Bailey et al 2011, 683). An ecological modernisation perspective is regarded as a useful way of analysing environmental reforms in Asia (Sonnenfeld & Mol, 2006), not least in China where economic development and the “treadmill of production” remain “the mainstay of the regime’s political legitimacy” (Li and Lang 2010, 57-58).

Key elements of the hybrid environmentalist/economic frame are “cap-and-trade policies and markets for carbon, global warming as a business opportunity, coalitions of environmentalists and business people, and the CEO as environmental statesman” (Zehr 2009, 85). We refer to this forthwith as the climate capitalism frame, following work on the hybridisation of environmentalism and capitalism labelled green capitalism by Prudham (2009) and climate capitalism by Newell and Paterson (2010). These studies identify the interests and values served by climate capitalism as those of the “transnational, neoliberal capitalist subject” (Prudham 2009, 1607) and the “‘financiers’ of low-carbon growth” (Newell and Paterson 2010, 10).

In sum, climate change frames are multi-faceted narratives that reflect powerful interests and produce a variety of meanings. Studies show that storylines about climate change are dynamic, historically contingent, and geographically mobile. Climate change frames are also theoretical constructs, either explicitly or implicitly. Neo-realism, for example - which focuses upon “the state as *the* individual actor in international events” – is a theory of international relations and geopolitics (Sharp 1998, 154). Development theory is contained within the development/humanitarian frame and ecological modernisation, as already mentioned, within the hybrid climate capitalism frame.

With these insights from secondary literature in mind we turn now to discussion of our primary research, beginning with an overview of methodology before moving, in part four, to the main findings and analysis.

3. Methodology

Newspaper analysis in Southeast Asia is challenging because of concerns about press censorship and the choice of printed language (Forsyth 2014: 78). In 2014, the journalistic organization Reporters without Borders analysed the degree of press freedom in 180 countries and found Malaysia to rank 147th in the world (Reporters without Borders 2014). Various formal and informal practices restrict newspaper criticism of governments and public figures in the country (Atkins 2001; Brown 2005; Woodier 2008). An example is the 1988 Malaysian Broadcast Act which allows ministers to determine subjects that can be reported on by newspapers (Eng 1997, 441).

Four newspapers (*New Straits Times* [NST], *The Star*, *Borneo Post* and *Daily Express*) and one news website (*Malaysiakini*) were selected for this study. These five media sources represent a cross section of national and local media, including the two most widely distributed and read English-language newspapers in Malaysia (*The Star* and NST) and two provincial newspapers (*Borneo Post* and *Daily Express*) (see Table 3). Whilst English language newspapers represent less than a third of total circulation (Table 1) the English-language press is widely accessible in Malaysia and not read solely by “those in agenda-setting positions” (Billett 2010, 4). In terms of readership, English is compulsory in schools and English-language newspapers are popular in urban areas, where seventy-three per cent of the Malaysian population now live (Press Reference undated; World Bank undated).

Acknowledging past research that underscores the connection between newspapers’ political persuasions and the discursive strategies employed to represent climate change (Dirikx & Gelders 2010a), the five media sources were identified to represent government as well as non-government viewpoints. Government linked newspapers have the advantage that they can act as a barometer or index of government policy and activity. Empirical support for the ‘indexing hypothesis’ that “news coverage of political issues is driven by, and dependent on, elite political actors” is thus far generally mixed (Shehata and Hopmann 2012, 177). In the Malaysian context, however, we expected to find strong evidence of

indexing because both national dailies (i.e. *NST* and *The Star*) are owned by or have links to members of the national ruling coalition party, *Barisan Nasional (BN)*. Whilst *The Daily Express* and *Borneo Post* are also known to have links to either federal or provincial governments, they offer a greater focus on localized reporting of climate change which provides an alternative perspective to the national level focus of the other media sources.

[insert table 3]

Due to the absence of a nationally distributed independent newspaper, an online news website called *Malaysiakini* was chosen for this study. Whilst Forsyth (2014) raises concerns over using websites for media analysis due to the potential for article withdrawal after publication and the anonymity of writers, there have also been calls for analyses of different types of media (Dirikx and Gelders 2010b), such as interactive and digital media considering the propensity towards past analyses of ‘quality press’ (Anderson 2009). Established in 1999 and described as “the godfather of internet journalism in Malaysia” (Brown 2005: 49), *Malaysiakini* is regarded as one of the most well-read and respected independent news websites in the country (A. Winifred, personal communication, December 10, 2014). The site averages 120,000 views a day which compares favourably with the print media (see Table 3). Brown (2005) observes that *Malaysiakini* is by default an oppositional medium since its critical stance towards the ruling parties has led to limited resources and access to official sources. Its journalists are often restricted to reporting opposition activities. Therefore despite the limitations of the reporting, *Malaysiakini* offers potential insights into the ‘alternative voices’ of climate change action and policy in the country.

The primary data collection involved a keyword search of all climate change-related articles published in the four newspapers and one news website between January 1st 2009 and December 31st 2011. The time period was chosen with three likely drivers of coverage in mind. One was the aforementioned COP15 announcement by Prime Minister Najib Razak. The other two were national government policy initiatives around climate change, most notably the National Green Technology Policy (launched in July 2009), the 2010 National Policy on Climate Change and the Renewable Energy Act (enacted in 2011).

Adopting the approach taken in previous studies (Antilla 2005; Billett 2010; Dirikx & Gelders 2010a) the three chosen keywords designed to capture all relevant articles during the stated period were: 'climate change', 'global warming' and 'greenhouse gases'. Each keyword was searched for throughout the full text of the newspaper, including headlines, sub-headlines and the article itself. All sections of the newspaper (i.e. National, World, Business, Supplements, etc.) were included in the search. The section within the newspaper/news website where the article appeared and the date of article publication were also noted. In cases where more than one keyword appeared in an article, the keyword that was mentioned first was used for reporting purposes.

Once collected, the articles were "read for content with extensive note taking and then reread as necessary" (Zehr 2009, 84). Articles were coded in terms of the climate change frames listed in Table 2. One author coded the articles to ensure the highest possible reliability. As a means to validate and prevent coder bias, the other author checked a sample of ten from every hundred articles. These articles were cross-checked with the original codes and changes made to the assigned codes if agreed upon by both authors. A basic issue was whether to code for a single dominant frame (e.g. neoliberalism) or for 'fragments' of more than one frame. As noted by Shehata and Hopmann (2012, 183), "scholars often analyse fragments, or indicators, of various frames in search of their presence in media coverage." We opted for the fragments approach in light of the literature reviewed in part one. Specifically, we wanted to allow for the possibility of hybridization or co-production of frames within a single article as well as across the newspapers and news website. It was, therefore, agreed to code each article for every frame found, however fragmentary. This strategy meant that some articles received multiple codes while others did not. As an example, an article entitled 'Building right by going green' (*The Star*, October 5, 2010) discusses industry and government wide initiatives to develop a green buildings sector in Malaysia. The article is assigned three frames based on discussion of government efforts to coordinate the construction of green buildings (neorealist), market and economic opportunities (neoliberal) and the resulting environmental benefits of green buildings (environmentalist).

4. Findings & Discussion

This section addresses the key findings from our research. The first part analyses the general trends including analysis of the primary frames, analysis of when and where in the media the articles appeared and an examination of national-local trends. The next part details two hybrid frames that we distil from the findings: climate capitalism and green nationalism in North/South context. The final part brings the two frames together in a singular narrative of green development.

General trends and observations

[insert table 4]

[insert figure 1]

A total of 1107 articles were identified and analysed from the four newspapers and one news website. As shown in Table 4 the largest number of articles came from the two nationally distributed newspapers, *NST* (538) and *The Star* (250). These two newspapers represent over seventy per cent of the articles, which is unsurprising considering their scope (covering local, national and international stories) and their circulation figures. Furthermore, the association between these two newspapers and the ruling political party makes an ‘indexing’ function (i.e. extensive reporting of government related initiatives and international events of national concern) inevitable. *Borneo Post*, a regionally-focused newspaper with circulation in Sarawak and Sabah (East Malaysia) has the third highest number of articles (178) followed by *Malaysiakini* (109) and *Daily Express* (32).

Figure 1 presents a timeline of articles over the study period. We identify two key points of note. Firstly, consistent with Boykoff (2009) in his study of world newspaper coverage of climate change, and with the exception of the locally focused *Daily Express*, there is a noted spike in climate change reporting across all media sources from September 2009 to January 2010. There is intense media coverage of Prime Minister Najib Razak’s announcement on Malaysia’s GHG reduction target at COP15 and the major geopolitical talking points of the conference, including reflections on the unsuccessful outcomes of delegate discussions. Secondly, there are periodic spikes in climate change reporting over the three year study duration. The three main spikes (March 2009, March 2010 and March

2011) can be explained by media coverage of Malaysia's participation in World Earth Hour – an international event aimed at raising awareness of climate change via a coordinated switching off of lights in cities across the world. The first participation in the event of Kuala Lumpur, Malaysia's capital city, in March 2009 drew considerable media attention – this month recorded the second highest number of articles in any one month by the *NST* during the three year period (28 articles). Peaks in climate change reporting in Malaysia during the study period are thus shown to be driven largely by external 'focusing events' (i.e. international climate change conferences and global initiatives such as World Earth Hour).

[figure 2]

Figure 2 demonstrates a relatively even distribution of articles across different sections of the newspapers, from news (National, Local and World) to Lifestyle. Supplements in the Lifestyle section - such as 'Life Focus' (*The Star*) and 'Life and Times' (*NST*) - feature many environmental awareness and conservation messages. Examples include a story covering a cartoon exhibition designed to raise awareness of climate change ("Cartoons used to spread the message of environment conservation", *The Star*, Lifestyle, October 16, 2010) and one on the environmental benefits of organic food ("Why organic food gaining global popularity", *Daily Express*, December 06, 2009). Climate change typically enters the frame as a justification for action. Malaysian media thus go beyond mere reporting of climate change-related news stories to perform an educational and awareness-raising role. Editors and journalists from *The Star* have actually won awards for their environmental reporting (*The Malaysian Times* 2012; *The Star* 2014).

Frames analysis

Figure 3 below shows that the environmentalist frame – emphasising the themes and core values of threat, vulnerability, conservation, and sustainability – is the highest frequency frame (30 per cent) across the four newspapers and the second highest reported frame in the news website *Malaysiakini*. This is consistent with aforementioned studies of climate change coverage in Asian newspapers.

[insert figure 3]

The proliferation of climate change discourse in Malaysian media is also consistent with the government's stated environmental agenda (Hezri and Hasan 2006). Climate change and related terms are omnipresent across all manner of stories and at different scales; from local/community level articles such as a school cleanliness campaign ("All Saints 13th litter-free school", *Daily Express*, 28 April 2011) to national level stories such as the launch of a country-wide feed-in-tariff for renewable energy ("New tariff to support renewable energy efforts", *NST*, 11 June 2010).

The neorealist and neoliberal frames are the second (23 per cent) and third highest frames (19 per cent) respectively. The neorealist frame emphasises climate change as a sovereign concern, i.e. the potential threats it poses to national interests, as well as climate related political action and policy. The high proportion of neorealist frames reflects the plethora of articles that report government policy and initiatives as well as Malaysia's role in (and response to) international climate action. This finding is consistent with those from a range of other studies in both Western and non-Western settings (Ahchong & Dodds 2012; Billett 2010; Dirikx & Gelders 2010a; Yun et al 2012). As discussed further below, the neoliberal frame is also dominant and reflects stories covering economic opportunity and market-orientated policy solutions.

Whilst the scientific frame is moderately represented across the five media (11 per cent), few articles discuss or debate data reliability or the political agendas of climate change science as evidenced elsewhere (see for example Nerlich 2010; Gavin and Marshall 2011). Rather, climate change is presented in Malaysia as it is in India - as a scientific reality and accepted fact (Billett 2010).

The development frame was represented in 12 per cent of articles whilst the catastrophe frame was the lowest ranked, featuring in only 4 per cent of cases. The development frame – covering the themes of inequality, vulnerability, rights and morality – while low has a higher frequency than in other studies, particularly in Western countries where such themes have been reported as negligible (Dirikx & Gelders 2010a). The catastrophe frame has historically been reported as far more prevalent in climate change media representation studies in Western countries (Ahchong and Dodds 2012; Antilla 2005; Boykoff 2008) and some non-Western ones (i.e. Bangladesh [Miah 2011]).

Analysis of frames from the two provincial newspapers and the news website shows similarities as well as differences when compared with the two national papers. Whilst the number of articles is significantly fewer in these three media, it is notable that the *Borneo Post* has a similar distribution of frames to *The Star* and *NST*. This is likely explained by its ownership links to governing authorities, as reporting consistently covers government initiatives as well as opportunities for green market development (a point revisited in the Climate Capitalism section).

The overall number of articles in *The Daily Express* is far fewer (32 in total) than in other sources. Here, reporting on climate change is frequently related to issues of local concern. Examples include a story linking Sabah's degrading coral reefs to climate change ("World losing its coral reefs?" 15 August, 2010) and reports of illegal land clearing near Sabah's World Heritage site ("Kundasang's destruction started long ago: Sepa", 19 April 2011). Considering the centrality of the natural environment to Sabah's state economy (i.e. ecotourism industry), it is unsurprising that *The Daily Express* frames climate change as a means to highlight the vulnerability of the local environment (from acute and chronic environmental impacts) and underscores initiatives to protect or conserve the environment.

The news website *Malaysiakini* also offers a somewhat different view of climate change reporting to the large national newspapers. There are fewer neoliberal framed articles, and the website critically engages with Malaysia's role in global climate negotiations and domestic policy solutions as reflected in the high proportion of neorealist framed stories. Indeed, articles such as "PM's pro-free trade stance a climate change risk" (11 December 2009) and "Copenhagen talks: Barely a ripple in Malaysia" (21 December 2009) indicate a critical perspective that is less apparent in the other media.

Climate Capitalism: the political economy of opportunity

The key elements of this frame identified earlier were: recognition of the need for a more sustainable future at the national and local scale; support for the proliferation of environmental markets and trade (e.g. biofuels trade and carbon markets); the idea of global warming as a business opportunity, including the point that Malaysia has important environmental assets (i.e. rainforest) to be protected for global benefit; encouragement of

networking and alliances between environmental and corporate interests; and enthusiasm for the rise of environmental entrepreneurs, such as Richard Branson (Prudham 2009; Zehr 2009; Newell and Paterson 2010).

All of those elements are evident across the studied media, as broadly indicated by the high proportion of environmental frames as well as the market orientation coverage of climate change. The environmental frame accounts for thirty percent of the articles reviewed and the neoliberal frame for seventeen. Thus, a common message across the media – with varying levels of explicitness – is that climate change has heightened the demand for better environmental performance in Malaysia and, accordingly, there are significant opportunities for investment in the environment. Such a high presence of environmental frames also implies the salience, as well as the convenience of ecological modernisation theory to policy makers in Malaysia; certain environmentally centric reforms and initiatives are understood as a means to complement – even boost – the country's economic growth ambitions.

The renewable energy sector is a case in point. Its growth was once hampered by government subsidies designed to protect the mainstream fuel types, notably oil and gas (Papargyropoulou et al., 2012). However, with the financial and technical support of international initiatives, such as the Clean Development Mechanism (CDM) and growing environmental awareness of the need to move from fossil fuel dependence, the Malaysian government have advocated efforts to develop alternative energy sources, such as biomass, small scale hydro-power, solar and geothermal power (Foo 2015). Developed by the United Nations as a means to combat climate change, the CDM rests on a market-oriented process whereby developed countries off-set their carbon emissions by buying carbon credits from less developed countries; in this case, projects in Malaysia can sell their credits if they can prove they are making carbon reductions. The CDM is thus a global carbon credit scheme indicative of neoliberal principles and logic (Bailey et al 2011) driven by a desire for improved environmental performance at different scales (i.e. national, community, corporate, industry).

A high number of articles cite the business opportunities from the CDM and related schemes through the potential they present for 'green' development. Five headlines below illustrate this point:

“Green tech to become new engine of growth”, *NST*, 14 October 2010
“Business should lead against climate change”, *The Star*, 14 January 2010
“Support green economy, financial institutions told” *Borneo Post*, 9 September 2011
“Green economy is best bet for future: CM” *Daily Express*, 16 November 2011
“Promoting the green economy” *Malaysiakini*, 12 February 2010

A common finding across the media is that Malaysia has regional leadership ambitions and is a willing participant in the global efforts to combat climate change from which the country stands to gain. Under the UN Framework Convention on Climate Change (UNFCCC) partially agreed at COP15 in 2009, Malaysia was identified as one of the beneficiaries of a US\$10 billion fund for control of greenhouse gas emissions. This provides further opportunity to develop low-carbon industries and carbon markets. Writing in the *NST*, this point is made explicit by Dr Ahmad Ibrahim, a fellow of the Academy of Sciences Malaysia and science adviser to the government:

“Malaysia should prepare to tap into the fund since we are blessed with many opportunities in carbon emission reduction projects...there will be the lucrative potential of selling carbon credits since Malaysia does have many carbon reduction projects to offer” (“Tapping into climate change `opportunities””, *NST*, 12 January 2011)

The Malaysian state is both a benefactor (of global initiatives) and a beneficiary (to the nation and region) of its own climate change-related agenda. It is therefore equally unsurprising that few articles question climate science – or the idea of climate change as a global problem – when viewed against international agreements to address that very problem. And rather than focusing on international studies and findings, many give voice to the country’s own scientists and cite the ongoing opportunities presented to them by the climate change challenge. The *Borneo Post* (“Universiti Putra Malaysia [UPM] leads innovation in move to deal with climate change”, 20 January 2010), *The Star* (“Sime Darby Foundation pledges RM5m for climate change research”, 12 March 2010) and *NST* (“Look to our professors for answers”, 29 July 2011) all highlight the efforts being undertaken by Malaysian researchers to adapt to and mitigate against climate change impacts.

Our analysis, therefore, shows how the problem of climate change has been framed as an opportunity in Malaysia, as also reported in South Korea (Yun et al 2012) and India (Thaker and Leiserowitz 2014). The argument that “the climate change crisis provides an opportunity for developing countries” to lead the way in renewable energy investments and other ‘green growth’ initiatives (Thaker and Leiserowitz 2014, 112) circulates in Malaysian media as well.

Green nationalism in North-South context: the geopolitics of climate action

Climate capitalism is an “ideological fit with neoliberal logic” (Newell and Paterson 2010, 27) and with ecological modernisation theory, which posits that environmental problems are “solvable within the context of existing institutions and power structures and continued economic growth” (Bailey et al 2011, 683). Climate capitalism is also doubly contradictory and a geopolitical (as well as economic and environmental) concept. The first contradiction is internal to neoliberalism itself. The same market orientation that creates opportunities for investment and shares in new markets necessitates “struggle to deal with the global inequalities it generates” (Newell and Paterson 2010, 34). The second contradiction relates to the frequent mismatch between neoliberalism in theory and practice. The same forces that advocate market allocation of resources may block access to their own markets by competitors (for example via tariff barriers) and/or demand authoritative reallocation of resources. This section shows how narratives around palm oil encapsulate these contradictions in the Malaysian context. We demonstrate that the discourse of opportunity interacts here with concepts such as responsibility, inequality and injustice in ways that are indicative of a North-South or NIEO perspective on development.

We found strong evidence of that perspective in frustration with tariff barriers to Malaysian exports and the same reformist proposals circulated by the old NIEO, i.e. arguments for an international economic order based on principles of state sovereignty, equality and international justice (Nesadurai 2005). As shown in the following quote, key themes consistent with both neo-realist and development frames are of injustice and the need to fight back (either alone or in concert with Indonesia) against a perceived anti-palm oil agenda driven by powerful non-Malaysian – specifically Western – interests:

“It’s about time Malaysia takes a strong stand against vociferous environmentalists for continuing to run down its palm oil industry under the pretext of public health protection and environmental conservation” (‘Palm oil activists recycling same old story’, *Borneo Post*, 24 April 2011)

Such coverage is strongly reminiscent of NIEO calls for financial assistance and technology transfers; effective state control over natural resources; the right of states to regulate the activities of transnational corporations; “just and equitable prices” for primary commodities; and open access to Western markets “by products of developing countries” (United Nations 1982, 3). Strident defense of palm oil reflects the structure of the Malaysian economy, which remains heavily dependent on the export of primary commodities such as petroleum, rubber and palm oil despite the rise of a manufacturing sector (World Bank 2013). The expansion of palm oil in the last thirty years has been prolific; during the period 2000 to 2007, Malaysia lost an average of 140,200 hectares—0.65 per cent of its forest area—per year, in part to palm oil plantations. An estimated 13.7 per cent of Malaysia’s total land area has been converted to palm oil plantations that provide employment for approximately 600,000 people, including small landowners and farmers (MPOB, no date).

Palm oil has become a major export commodity thanks to Malaysia’s ability to draw on low cost labour from the region, available land, suitable climatic conditions for cultivation and growing world demand. In 2011, world consumption of vegetable oils was estimated at 178 million tonnes, the largest contributors being palm oil (49 million tonnes) and soya bean oil (42 million tonnes) (Oil World 2012).

A significant critique is that palm oil contributes to climate change through attendant deforestation and planting on peat soils – both ecosystems that act as a global carbon sink (Detwiler 1986; Page et al 2011). Related to deforestation are the associated biodiversity implications, in particular the loss of animal species such as the orang-utan and Sumatran rhino (World Wildlife Fund 2013; International Union for Conservation of Nature 2013). In response, aforementioned Western-based anti-palm oil campaigns have risen in number – examples include Greenpeace (‘Dove Onslaught(er)’, 2008; ‘Killer Kit-Kat’, 2010), Friends of the Earth (2005), Lush (2010), Zoos Victoria (‘Don’t Palm Us Off’) and the online ‘Say No to Palm Oil’ campaign. Such negative public campaigning has led to a re-examination of palm

oil procurement policies by multinational companies such as Unilever, Procter and Gamble and Mars (Economist 2010).

Our research reveals a sustained defence of palm oil and, in many instances, of the palm industry itself. When the *NST* describes palm oil as “actually quite useful in the global fight against climate change” (“Joint plan to file case against EU directive”, *NST*, 10 December 2009) and plantation companies as “a responsible lot by virtue of the industry being tightly regulated” (“Credibility of green groups questioned”, *NST*, 31 December 2009), it unites the idea of climate change as an opportunity for economic development with a conception of responsible business and government. In May 2010 *The Star* did likewise when stating that “plantation companies are among the earliest in the country to embrace and adopt the best green practices” (Plantation companies the early birds, 1 May 2010). The underlying theme here is that of corporate responsibility in a context of stringent regulation by government.

At the same time, a number of articles rail against opportunities stifled in relation to climate action thanks to commodity discrimination and trade barriers. This helps to explain why the EU, which “has made it a top priority to promote and brand itself as *the* global leader on climate change...has had only partial success” (Parker et al 2012, 276). In August 2010 *The Star* ran a story arguing that Western NGOs behind anti-palm oil campaigns were funded by the EU as a means to protect European biofuel commodities (“Up close with pro-palm oil lobbyist Alan Oxley”, 14 August, 2010). Likewise, an article from *Malaysiakini* (“Don't single out palm oil for EU compliance”, *Malaysiakini*, 25 May 2010) criticized the double standards of EU and Australian trade compliance policies, arguing that other edible vegetable oils were not subjected to the same sustainability requirements as palm oil. The *Borneo Post* castigated a proposed Australian bill aimed at mandatory labelling of palm oil as an example of “radical vendettas motivated by economic domination of developing countries” (Borneo Post, 24 April 2011).

While most articles represent Malaysia as under attack from irresponsible foreign “environmental ideologues”, dogmatists and purveyors of “green myths” (“Green with ideology”, *NST*, 1 January 2010), some question their Malaysian affiliates as well. A story covering the potential deregistration of Sahabat Alam Malaysia (SAM - a lobbyist for forest and peat land conservation) is a case in point. After being threatened with the loss of its government license SAM was forced to defend itself, arguing that despite funding from

Friends of the Earth its “activities are consistent with the government's policy on environmental protection” and not against the interests of the country (“Sahabat Alam at a loss over registrar's warning”, *NST*, 31 December 2009).

Drawing parallels with Billett's observation of a nationalistic, “‘us’ versus ‘them’” framing of climate change in Indian media (2010, 14), our analysis suggests that palm oil is a potent symbol in Malaysia of global inequalities and injustice. Although a small number of stories express concern about the country's resource management – one example from *The Star* reports that Malaysia's forest cover is diminishing but the losses are being masked by terminology (“Tree cover up”, *The Star*, 18 October, 2011) – few articles consider in detail the basis of the external critique of palm oil and even fewer report reasons for local opposition to plantation expansion.

Furthermore and reminiscent of Goldstein's (2015) notion of ‘divergent expertise’ in reference to the role of alternative scientific networks within the context of palm oil cultivation in Indonesian peatlands, scientists based in universities and national scientific bodies and PhD holders in industry bodies are often cited on their views in opposition to the perceived external critiques or threats to the palm oil industry. Insights from these individuals tend not to focus on scientific debates *per se* but rather on arguments for palm oil development. Central to these arguments are discussions of the history of environmental degradation and economic development in Western countries. For example, in an article published in the *Borneo Post* in 2011 a prominent figure in Malaysian academia argues the case for continued palm oil cultivation on peatland soils in Malaysia by highlighting the extent to which temperate peatland in the Netherlands has been developed for the Dutch flower industry. While arguing such a position has its merits from a local political economy perspective – notwithstanding recent research that demonstrates the increased risk of flooding in Sarawak from tropical peatland development (Hooijer et al, 2015) – published scientific research since the 1990s has consistently highlighted the significant carbon storage function of tropical peatland and the important role it plays in global climate regulation (Page et al, 2011; Padfield et al, 2014; Rieley and Page, 1995). Established scientific arguments are rarely discussed in Malaysian media. Thus it seems that ‘expert insights’ from the local scientific community act as forms of epistemic authority which in many cases reinforce the main geopolitical argument related to palm oil – that there are external sources of threat and obstacles to opportunity inherent in global power relations.

A related geopolitical storyline shifts the responsibility for climate change mitigation and national development from the private corporate sector (i.e. palm oil companies) to national and global political actors. Malaysia is represented as not only a willing participant in global efforts to combat climate change but also as a role model of responsibility for the rest of the world. Prime Minister Najib is reported as saying, for example, that Malaysians must “be prepared to shoulder greater responsibilities, not just to remain afloat in an increasingly challenging environment, but to excel in it” (“Get ready to shoulder greater responsibilities,” *NST*, 28 April 2010).

NST coverage of Najib’s pronouncements at COP15 is even more telling of a North-South perspective on climate change and development. Reminiscent of the NIEO, it notes that the commitment to a voluntary reduction in carbon emissions “was conditional upon the transfer of technology and adequate financing from developed and industrialised countries and economies”. Also recalled is the international legal principle of Common but Differentiated Responsibility (CBDR) enshrined in the 1997 Kyoto Protocol and adopted by the UNFCCC. The Protocol calls on ‘Annex 1’ countries to take the lead on combating climate change through quantified emissions reductions, technology transfers and financial contributions to the Global Environmental Facility. The *NST* reminded its readers that Najib “said COP15 presented fair principles of equity and historical responsibility due to the need of parties in the Annex 1 category (industrialised countries and economies in transition) to repay their climate debt”. Furthermore, Najib had described the proposed US\$10 billion fast track funding for developing nations to control emissions as a “mere pittance and woefully inadequate” – especially “when compared with the trillions of dollars recently used in bailing out banks and companies” (“Najib pledges 40pc carbon cut”, *NST*, 18 December 2009).

Our research thus shows how the principles and demands enshrined in the old NIEO remain alive and well in Malaysia. Instead of colonial history, the driving force this time is climate change and climate governance.

The summary frame: a structuralist model of green development

This final section begins by returning to key points made – and questions raised – in the paper’s introduction. We began by showing that China and India are not only recognised as

emerging economies in the global South; they also enjoy (or aspire to) leadership roles within climate change negotiations. These countries' articulation of North-South perspectives on climate change and development in a context of neo-liberal domestic reforms and extensive carbon emissions has raised critical questions about the ideological coherence of their own world views as well as the future political coherence of the G77. The bigger question is not only whether major emerging economies such as China can usefully act as bridge-builders between developed and developing nations; it is also whether a structuralist model of development is necessarily inconsistent with neo-liberal logic and therefore outdated.

The main overlapping storylines uncovered by our content analysis of media coverage of climate change in a so-called second tier emerging economy suggest that a hybridisation of different development models (and not just of climate change frames) is at work in Malaysia. Although the prominence given to palm oil may set Malaysia apart, our secondary reading and primary research suggest that the key themes summarised below are also at work in other emerging economies' discourses about climate change and development.

The key themes demonstrated throughout are *opportunity* and *responsibility*. The notion that climate change provides plenty of opportunities for business – especially for 'green' industries such as renewable energy and waste – came through most forcefully in the section of the paper on climate capitalism. Climate change has also been scripted as an opportunity for academia – especially for researchers and scientists working in defence of palm oil development.

The idea that climate change is a global problem with potentially catastrophic global consequences (especially for vulnerable people and countries) is not discounted in Malaysian media. However, one way the country's vulnerability to climate change is downplayed is through celebratory accounts of responsible action. Climate change is scripted in Malaysian media as a responsibility and a commitment at different spatial scales (global, regional, national, and local). All Malaysians – politicians, citizens, businesses, employees, corporate executives, consumers, adults and children – apparently have a part to play in climate change adaptation and mitigation. The sense of Malaysia as a role model and responsible leader (in the region if not at the global level) further acts to reassure the

populace that climate change is a problem that can be managed and not a coming apocalypse.

Where climate capitalism clearly interacts with green nationalism is in discourses about obstacles to opportunities for market-based development. Palm oil coverage suggests that the major obstacles to development in Malaysia are external to the state. Key culprits are the EU (its discriminatory policies and trade barriers) and foreign NGOs (e.g. campaigners against palm oil). This narrative is propagated by a geography of epistemic authority whereby insights from 'scientific experts' reinforce perceived notions of global inequalities and injustices. At the same time, international cooperation and assistance are considered vital for developing countries if they are to develop while meeting their climate change commitments. Given differential present capabilities, it is viewed as essential that the West cooperate with demands for technology transfer and financial assistance from countries like Malaysia.

All states, furthermore, are called upon to abide by the international principles of equity, inter-state justice, fairness, and historical responsibility (including CBDR). Relevant concepts are 'unrestricted trade' (notably open access to western markets for developing country products such as palm oil) and 'climate debt' (i.e. those responsible for past harm must remedy or mitigate the consequences).

Finally, in an unequal world of trade barriers, discrimination, and conflicting interests, development cannot be dependent on markets alone. The developmental state apparently still has a key role to play – in formulating policy, facilitating investment, accessing finance, and lobbying for changes in international relations of power.

Conclusion

The paper began by posing four key questions: How is climate change framed in Malaysian media? How do Malaysian narratives compare to those found elsewhere? How do climate change and development narratives interact in a 'second tier' emerging economy? And lastly, what do these interacting narratives say about the salience of neoliberal and North-South perspectives on climate change and development? Informed by research on climate change frames in the social sciences as well as broader studies of neoliberalism and its

discontents in both climate policy and international development, we addressed the research questions via analysis of climate change coverage in four newspapers and one popular news website in Malaysia.

Our findings show that climate change frames identified in earlier national and comparative studies (especially of India and China, in the global South) are at work in Malaysia, disseminated via a cultural circuitry of climate change communication operating at different spatial scales. We found a strong representation of the environmentalist frame across all studied media sources. This finding is consistent with newspaper coverage from other countries, especially in Asia – a region vulnerable to climate change impacts, such as flooding and depleting freshwater availability (IPCC 2014). Furthermore, we found evidence of paradoxically positive views of climate change, whereby an acknowledged global problem and threat has been reframed as an opportunity for business instead of an impending catastrophe for mankind. The association of this opportunity discourse with neoliberal capitalist ideology and logic was also apparent in our analysis. Emergent themes of climate capitalism and green capitalism – which illustrate concepts of frame transformation, hybridization and co-production as well as the continued salience of ecological modernisation theory – are clearly applicable to Malaysia.

However, climate change storylines also combine with forms of knowledge and value orientations that are indicative of both neo-realism and state-centered elements of the development/humanitarian frame. Demands for open markets are certainly consistent with neoliberal logic, but they are also indicative of the old NIEO. So too are demands for relief from foreign interference in natural resource production (i.e. debates around palm oil); for the right of states to regulate transnational activities (e.g. the activities of foreign NGOs and their Malaysian affiliates); for increased financial assistance and technology transfers (in order to control emissions); and for repayment of ‘climate debt’ (i.e. past harm to the environment from industrial countries and economies in transition).

Equally evocative of the old NIEO are Malaysian appeals to principles of inter-state fairness, equity and historical responsibility. Principles are “a coherent set of theoretical statements about how the world works” (Krasner 1985, 4). The NIEO signatories of the 1970s “consistently endorsed principles and norms that would legitimate more authoritative as opposed to more market-oriented modes of allocation”. The former “involves either the direct allocation of resources by political authorities, or indirect

allocation by limiting the property rights of non-state actors". The latter, by contrast, is a regime "in which the allocation of resources is determined by the endowments and preferences of individual actors" with individual property rights (Krasner 1985, 5).

The resurfacing of NIEO principles and demands in Malaysia thus expresses the continued salience of structuralist development theory – as argued by Timmons and Parks (2007) – and not simply the global appeal of neoliberal frames of reference. Indeed, our analysis suggests that the two are fundamentally related. Emerging economies turn to the NIEO in response to global inequalities old and new. Acceptance of the principle of sovereign equality of states, within international forums to which the global North remained committed, once gave institutional advantage to decolonized countries intent on overturning the legacies of colonial history (Krasner 1985). Acceptance of the reality of climate change, within international forums that formally recognize the principle of CBDR and the concept of 'climate debt', offer another opportunity to press historic demands for changes in the international political economy.

In sum, climate change has been framed as an opportunity in Malaysia – not only as an opportunity for market forces but also as an opportunity for the state to reassert older demands for changes in global relations of power. In light of other studies of emerging economies, our analysis suggests that the hybridization of different development models, and not just of climate change frames, is at work in the global South.

References

Aggarwal V K and Weber S 2012 The new international economic order *Harvard Business Review* (http://blogs.hbr.org/cs/2012/04/the_new_new_international_econ.html) Accessed 9 June 2012

Ahchong K and Dodds R 2012 Anthropogenic climate change coverage in two Canadian newspapers, the Toronto Star and the Globe and Mail, from 1988 to 2007 *Environmental Science & Policy* 15 48–59

Anderson A 2009 Media, politics and climate change: towards a new research agenda *Sociology Compass* 3 (2), 166–182

Antilla L 2005 Climate of scepticism: US newspaper coverage of the science of climate change *Global Environmental Change* 15 338–352

Atkins W 2001. *The Politics of Southeast Asia's New Media*. Curzon, Richmond

Bailey I Gouldson A and Newell P 2011 Ecological modernisation and the governance of carbon: A critical analysis *Antipode* 43 682-703

Barnett J 2007 The geopolitics of climate change *Geography Compass* 1 1361-1375

Bello W 2010 China: the prince of Denmark *Foreign Policy in Focus* January 21 1-6

Billett S 2010. Dividing climate change: global warming in the Indian mass media. *Climatic Change*, 99(1-2) 1-16

Boykoff M 2007a From convergence to contention: United States mass media representations of anthropogenic climate change science *Transactions of the Institute of British Geographers* 32(4) 477-489

Boykoff M 2007b Flogging a dead norm? Newspaper coverage of anthropogenic climate change in the United States and United Kingdom from 2003 to 2006 *Area* 39 470-81

Boykoff M 2008 The cultural politics of climate change discourse in UK tabloids *Political Geography* 27 549-569

Boykoff M 2010. Indian media representations of climate change in a threatened journalistic ecosystem. *Climatic Change*, 99(1-2) 17-25

Boykoff M and Boykoff J 2007 Climate change and journalistic norms: a case study of US mass-media coverage *Geoforum* 38 1190-1204

Bridge G 2004 Mapping the bonanza: Geographics of mining investment in an era of neoliberal reform. *The Professional Geographer* 56(3) 406–421

Brown G 2005 The Rough and Rosy Road: Sites of Contestation in Malaysia's Shackled Media Industry. *Pacific Affairs* 78 (1)39-56(18)

Castree N 2008 Neoliberalising nature: the logics of deregulation and reregulation *Environment and Planning A* 40 131 -152

Clegg J 2011 China at the global summit table: rule-breaker, deal-wrecker or bridge-builder? *Contemporary Politics* 17(4) 447-465

Conrad B 2012 China in Copenhagen: reconciling the 'Beijing climate revolution' and the 'Copenhagen climate obstinacy' *China Quarterly* 210(June) 435-455

De Lucia V 2007 Common but differentiated responsibility Encyclopaedia of Earth
<http://www.eoearth.org/view/article/151320> Accessed 21/08/13 Accessed 14 August 2013

Demeritt D 2001 The construction of global warming and the politics of science *Annals of the Association of American Geographers* 91 307-337

Detwiler R 1986 Land use change and the global carbon cycle *Biogeochemistry* 2 67-93

Dirikx A and Gelders D 2010a Ideologies Overruled? An Explorative Study of the Link Between Ideology and Climate Change Reporting in Dutch and French Newspapers *Environmental Communication* 4 (2) 190-205

Dirikx A and Gelders D 2010b To frame is to explain: a deductive frame-analysis of Dutch and French climate change coverage during the annual UN Conferences of the Parties *Public Understanding of Science* 19 (6) 732-42.

Dittmer J, Moisis S, Ingram A and Dodds K 2011 Have you heard the one about the disappearing ice? Recasting Arctic geopolitics *Political Geography* 30 202-214

Doulton H and Brown K 2009 Ten years to prevent catastrophe? Discourses of climate change and international development in the UK press *Global Environmental Change* 19 191-202

Doyle J 2011 *Mediating climate change* Ashgate, Farnham

Economist 2010 The campaign against palm oil: The other oil spill *Economist*
<http://www.economist.com/node/16423833> Accessed 04/08/13 Accessed 09 September 2013

Eng P 1997 The media and democratization in Southeast Asia. *Current History* 96 437-442

Foo K Y 2015 A vision on the opportunities, policies and coping strategies for the energy security and green energy development in Malaysia *Renewable and Sustainable Energy Reviews* 51 1477–1498

Forsyth T 2014 Public concerns about transboundary haze: A comparison of Indonesia, Singapore, and Malaysia *Global Environmental Change* 25 76-86

Friends of the Earth 2005 Palm oil campaign wins award
(http://www.foe.co.uk/campaigns/success_stories/palm_oil.html) Accessed: 04 July 2013

Gamson W A, Croteau D, Hoynes W and Sasson T 1992 Media images and the social construction of reality *Annual Review of Sociology* 18 373-93

Gavin N T and Marshall T 2011 Mediated climate change in Britain: Scepticism on the web and on television around Copenhagen *Global Environmental Change* 21 1035-1044

Goldstein J E 2015 Knowing the subterranean: Land grabbing, oil palm, and divergent expertise in Indonesia's peat soil *Environment and Planning A*

Gordon J C, Deines T and Havice J 2010. Global warming coverage in the media: trends in a Mexico City newspaper *Science Communication* 32(2) 143-170

Greenpeace 2008 Dove Onslaught(er) (<http://www.youtube.com/watch?v=odI7pQFyjs0>)
Accessed: 20 September 2013

Greenpeace 2010 Ask Nestle to give rainforests a break
(<http://www.greenpeace.org/international/en/campaigns/climate-change/kitkat/>)
Accessed: 15 June 2013

Hackenesch C and Janus H 2013 Post 2015: How emerging economies shape the relevance of a new agenda *German Development Institute Briefing Paper* 14 1-4

Hezri, A and Hasan M 2006 Towards sustainable development? The evolution of environmental policy in Malaysia *Natural Resources Forum* 30 37–50

Hooijer A, Vernimmen R, Visser M, Mawdsley N 2015. *Flooding projections from elevation and subsidence models for oil palm plantations in the Rajang Delta peatlands, Sarawak, Malaysia*. Deltares Report 1207384

Hulme M 2009 *Why we disagree about climate change: understanding controversy, inaction, and opportunity* Cambridge University Press, Cambridge

International Union for the Conservation of nature IUCN 2013 Red list of threatened species, Version 2013.1.(<http://www.iucnredlist.org>) Accessed: 13 September 2013

IPCC 2014 Summary for policymakers. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability*. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1-32.

Jogesh A 2012 A change in climate? Trends in climate change reportage in the Indian print media' in Navroz K. Dubash (Ed.) *Handbook on Climate Change and India: Development, Politics and Governance*, Earthscan: London, pp. 266-286

Krasner S 1985 *Structural conflict: the third world against global liberalism* University of California Press, London

Levidow L 2013 EU criteria for sustainable biofuels: Accounting for carbon, depoliticising plunder *Geoforum* 44 211–223

Lewis J and Boyce T 2009 Climate change and the media: the scale of the challenge in **Lewis J and Boyce T** eds. *Climate change and the media* Peter Lang, Oxford 3-16

Li V and Lang G 2010 China's 'green GDP' experiment and the struggle for ecological modernisation *Journal of Contemporary Asia* 40(1) 44-62

Lyytimäki J and Tapio P 2009 Climate change as reported in the press of Finland: From screaming headlines to penetrating background noise *International Journal of Environmental Studies* 66(6) 723-730

Manzo K 2010a Imaging vulnerability: the iconography of climate change *Area* 42 96-107

Manzo K 2010b Beyond polar bears? Re-envisioning climate change *Meteorological Applications* 17 196-208

Manzo K 2012 Earthworks: The geopolitical visions of climate change cartoons *Political Geography* 31 481-494

Miah, M., Kabir, M., Koike, M., & Akther, S. 2011 Major Climate change Issues Covered by the Daily Newspapers of Bangladesh *The Environmentalist* 31(1) 67-73

Michaelowa K and Michaelowa A 2012 India as an emerging power in international climate negotiations *Climate Policy* 12 575-590

MPOB no date. Sustainable Palm Oil Developments in Malaysia (<http://www.palmoilworld.org/sustainability.html>) Accessed: 13 September 2013

Nerlich B 2010 'Climategate': paradoxical metaphors and political paralysis *Environmental Values* 19 419-442

Nesadurai H 2005 Bandung and the political economy of north-south relations: Sowing the seeds for revisioning international society Institute of Defence and Strategic Studies, Singapore

Newell P and Paterson M 2010 *Climate capitalism: Global warming and the transformation of the world economy* Cambridge University Press, Cambridge

Nisbet M 2010 Knowledge into action: framing the debates over climate change and poverty in **D'Angelo P and Kuypers J** eds *Doing news framing analysis* Routledge, New York and London 43-68

O'Neill S 2013 Image matters: climate change imagery in US, UK and Australian newspapers *Geoforum* 49 10-19

Oil World 2012 Homepage (<http://www.oilworld.biz>) Accessed 01 July 2013

Olivier, J.G.J., Janssens-Maenhout, G., Muntean, M. Peters, J.H.A.W (2014) Trends in global CO2 emissions - 2014 report, JRC report 93171 / PBL report 1490; ISBN 978-94-91506-87-1.

Padfield, R., Waldron, S., Drew, S., Papargyropoulou, E., Kumaran, S., Page, S., Gilvear, D., Armstrong, A., Evers, S., Williams, P., Zakaria, Z., Chin, S., Hansen, S., Campos-Arceiz, A., Latif, T., Sayok, A. & Tham, M. 2014 Research agendas for the sustainable management of tropical peatland in Malaysia. *Environmental Conservation* 42 (1) 73-83

Padfield, R., Drew, S., Papargyropoulou, E., Page, S., Evers, S., Hansen, S., Campos-Arceiz, A., Schouten, G., Kangayatkarasu, N., Maulidia, M., Sayok, A., Syayuti, K & Tham, M. (in press) Landscapes in transition: An analysis of sustainable policy initiatives and emerging corporate commitments in the palm oil industry *Landscape Research*

Page S, Rieley J and Banks C 2011 Global and regional importance of the tropical peatland carbon pool. *Global Change Biology* 17 798-818

Papargyropoulou E, Padfield R, Harrison O and Preece C 2012 The rise of sustainability services for the built environment in Malaysia *Sustainable Cities and Society* 5 44–51

Pasquare A and Oppizzi P 2012 How do the media affect public perception of climate change and geohazards? An Italian case study *Global and Planetary Change* 90 152-157

Painter J 2010 *Summoned by Science: Reporting Climate Change at Copenhagen and Beyond* (Oxford: Reuters Institute for the Study of Journalism)

Painter, J and Ashe, T 2012 Cross-national comparison of the presence of climate scepticism in the print media in six countries, 2007-10 *Environmental Research Letters*, 7, pp. 1–8

Parker C F, Karlsson C, Hjerpe M and Linner B-O 2012 Fragmented climate change leadership: making sense of the ambiguous outcome of COP-15 *Environmental Politics* 21(2) 268-286

Press Reference undated Press Reference Malaysia

(<http://www.pressreference.com/Ky.Ma/Malaysia.html>) Accessed 07 August 2015

Prudham S 2009 Pimping climate change: Richard Branson, global warming and the performance of green capitalism *Environment and Planning A* 41 1594-1613

Reporters without Borders 2014 World Press Freedom Index

http://rsf.org/index2014/data/index2014_en.pdf

Rieley J and Page S 1995 *Proceedings of the International Symposium of Biodiversity, Environmental Importance and Sustainability of Tropical Peat and Peatlands*. Palangka Raya, Indonesia: Sumatra Publishing Limited.

Roberts J T and Parks B C 2007 *A climate of injustice: Global inequality, north-south politics and climate policy* MIT Press, London

Schmidt A, Ivanova, A and M Schafer 2013 Media attention for climate change around the world: A comparative analysis of newspaper coverage in 27 countries *Global Environmental Change* 23 (5), 1233–1248.

Schafer M, Ivanova, A & A Schmidt 2014 What drives media attention for climate change? Explaining issue attention in Australian, German and Indian print media from 1996 to 2010 *International Communication Gazette* 76(2) 152-176

Shamsuddin A H 2012 Development of renewable energy in Malaysia – strategic initiatives for carbon reduction in the power generation sector *Procedia Engineering* 49 384-391

Shanahan M 2009 Time to adapt? Media coverage of climate change in non-industrialised countries in **Lewis J and Boyce T** eds *Climate change and the media* Peter Lang, Oxford 145-157

Sharp J P 1998 Reel geographies of the new world order: patriotism, masculinity, and geopolitics in post-Cold War American movies in **O Tuathail G and Dalby S** eds *Rethinking geopolitics* Routledge, London and New York 152-169

Shehata A and Hopmann D N 2012 Framing climate change: a study of US and Swedish press coverage of global warming *Journalism Studies* 13 175-192

Shukla P R and Dhar S 2011 Climate agreements and India: aligning options and opportunities on a new track *International Environmental Agreements* 11 229-243

Sonnenfeld D A and Mol A P J 2006 Environmental reform in Asia: comparisons, challenges, next steps *Journal of Environment and Development* 15 112-137

Takahashi B 2011 Framing and sources: a study of mass media coverage of climate change in Peru during the V ALCUE *Public Understanding of Science* 20(4), 543-557

Takahashi B and Meisner M 2013 Climate change in Peruvian newspapers: The role of foreign voices in a context of vulnerability *Public Understanding of Science* 22 (4), 427-442

Thaker J and Leiserowitz A 2014 Shifting discourses of climate change in India *Climatic Change* 123 107-119

The Malaysian Times 2012 The Star shines at MPI awards; it was a big victory for everyone in Star, says Group Editor Chun Wai [online] Available at:
<http://www.themalayiantimes.com.my/the-star-shines-at-mpi-awards-it-was-a-big-victory-for-everyone-in-star-says-group-editor-chun-wai/> (Accessed: 01/12/2014)

The Star 2014 'The Star' editor wins green award [online] Available at:
<http://www.thestar.com.my/News/Nation/2014/11/03/The-Star-editor-wins-green-award/>
(Accessed: 01/12/2014)

Thoenes P 2006 Biofuels and Commodity Markets – Palm Oil Focus, presented at AgraInforma conference “The impact of biofuels on commodity markets”, Brussels, 24 - 25 October 2006, Rome: FAO, Commodities and Trade Division

Timmons Roberts J and Parks B A Climate of Injustice Global Inequality, North-South Politics, and Climate Policy, MIT Press

United Nations 1982 Towards the new international economic order United Nations, New York

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* 20 492-501

Woodier J 2008 *The Media and Political Change in Southeast Asia*. Elgar, Cheltenham

World Bank 2013 Malaysia Overview World Bank

(<http://www.worldbank.org/en/country/malaysia/overview>) Accessed 01 August 2013

World Bank undated World development indicators: urbanisation

(<http://wdi.worldbank.org/table/3.12>) Accessed 07 August 2015

World Wildlife Fund 2013 Rhinos (<http://worldwildlife.org/species/rhino>) Accessed: 05 September 2013

Wu Y 2009 The good, the bad, and the ugly: framing of China in news media coverage of global climate change in **Lewis J and Boyce T** eds *Climate change and the media* Peter Lang, Oxford 158-173

Yun S-J, Ku D, Park N and Han J 2012 A comparative analysis of South Korean newspaper coverage of climate change: Focusing on conservative, progressive, and economic newspapers *Development and Society* 41 201-228

Zehr S 2009 An environmentalist/economic hybrid frame in US press coverage of climate change, 2000-2008 in **Lewis J and Boyce T** eds *Climate change and the media* Peter Lang, Oxford 80-91

Zoos Victoria 2009 Don't palm us off campaign (<http://www.zoo.org.au/fighting-extinction/conservation-campaigns/dont-palm-us-off-campaign>) Accessed: 10 June 2013