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ORIGINAL PAPER

Introduction: exploring and explaining the Asia-Pacific Partnership on Clean Development and Climate

Sylvia I. Karlsson-Vinkhuyzen · Harro van Asselt

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Abstract This introduction lays the groundwork for this Special Issue by providing an overview of the Asia-Pacific Partnership on Clean Development and Climate (APP), and by introducing three main analytical themes. The first theme concerns the emergence and continuation of the APP. The contributions show that the emergence of the APP can be attributed to international factors, including the United States' rejection of the Kyoto Protocol, and its search for an alternative arena for global climate governance, and other countries' wish to maintain good relations with the US; as well as domestic factors, such as the presence of bureaucratic actors in favour of the Partnership, alignment with domestic priorities, and the potential for reaping economic benefits through participation. The second theme examines the nature of the Partnership, concluding that it falls on the very soft side of the hard-soft law continuum and that while being branded as a public-private partnership, governments remain in charge. Under the third theme, the influence which the APP exerts on the post-2012 United Nations (UN) climate change negotiations is scrutinised. The contributions show that at the very least, the APP is exerting some cognitive influence on the UN discussions through its promotion of a sectoral approach. The introduction concludes with outlining areas for future research.

Keywords Asia-Pacific Partnership · Kyoto Protocol · Public–private governance · Post-2012 climate policy · Soft law · United Nations Framework Convention on Climate Change

H. van Asselt

Department of Environmental Policy Analysis, Institute for Environmental Studies, Vrije Universiteit Amsterdam, De Boelelaan 1085, 1081 HV Amsterdam, The Netherlands e-mail: harro.van.asselt@ivm.vu.nl

S. I. Karlsson-Vinkhuyzen (🖂)

Finland Futures Research Centre, Turku School of Economics, Pinninkatu 47, 33100 Tampere, Finland e-mail: sylvia.karlsson@tse.fi

1 Introduction

The creation of the Asia-Pacific Partnership on Clean Development and Climate (APP) in 2005 by the United States and Australia (who convinced Japan, South Korea, India and China to join; Canada enrolled later) provoked reactions from deep cynicism of it being only a public relations ploy to feign action on climate change, via indifference to an effort expecting to yield no impact, to harsh criticism and fear of it being a threat to the legally binding United Nations (UN) climate regime (van Asselt 2007). While most researchers have found the Partnership too insignificant to warrant serious attention, the contributors to this Special Issue argue differently. They see it as essential to put the Partnership under the magnifying glass, in order to provide a more solid foundation for criticism or praise of the APP, as well as an assessment of its wider implications for global climate governance. The objective of this Special Issue is therefore to offer a state of the art analysis of research on the APP carried out and situate this in a theoretical discussion from several starting points including institutional interplay, legalization and ecological modernisation, as well as an empirical exploration of global climate governance.

More specifically, this Special Issue aims to:

- (1) explain the creation and survival of the APP by looking closer at four of its member countries: Australia, China, Japan and the United States;
- (2) understand whether the APP's nature as an intergovernmental partnership, which in its implementation phase takes the form of a public–private partnership, reflects any particular shift in national and global environmental governance;
- (3) analyse how the APP interacts with, and possibly influences, the post-2012 negotiation process and the global climate regime in general, and explore how this dynamic may develop in the future.

In the first contribution to the Special Issue, Jeffrey McGee and Ros Taplin show how the APP has been used in the discursive contestation of the international climate regime, arguing that it represents an at least temporary manifestation of a weak form of ecological modernisation. The following contribution, by Antto Vihma, examines in more detail how the APP and other soft law initiatives have been used in the UN-based climate negotiations. The other contributions focus on the role of the APP in different member countries. Tora Skodvin and Steinar Andresen first analyse the changes in the roles of the different branches of the United States' government in international climate policy. Next, Peter Lawrence examines how and why the APP has gained support in Australia from two different governments. Gørild Heggelund and Inga Fritzen Buan then outline the reasons for why China has joined the Partnership. In the final contribution, Harro van Asselt, Norichika Kanie and Masahiko Iguchi discuss why Japan has sought to participate in both the APP and the UN climate regime.

In this introduction to the Special Issue, we lay the groundwork for the three analytical themes, and examine the answers which the contributions provide to the questions raised here. We first place our focus on the APP in the context of research examining the fragmentation of global climate governance (Sect. 2), followed by a general overview of the APP and its main features (Sect. 3). We then discuss some of the main questions that are addressed in this Special Issue. First, we examine why and how the APP emerged and evolved, and why countries participate, focusing on four member countries (Sect. 4). Second, we discuss how the Partnership's nature can be characterised (Sect. 5). Third, we address the relation to the UN climate regime with a view to identifying the implications

for future climate governance (Sect. 6). Finally, we draw conclusions and provide some guidance for further research (Sect. 7).

2 The fragmentation of global climate governance

The emergence of global climate governance was closely linked to the UN, and thus to a multilateral framework including a wide range of countries. Notably, the UN hosted the negotiations for the 1992 United Nations Framework Convention on Climate Change (UNFCCC). Until the early 2000s, the UNFCCC and the 1997 Kyoto Protocol provided the primary intergovernmental arena where climate change was being addressed. It was the 'only game in town' in a time that climate change was still considered to be a controversial and unproven problem for some countries, and an essentially 'Northern' problem for many developing countries. Climate change could still be relegated to the 'low politics' of environmental problems even in those countries that acknowledged and wanted to address the problem, while developing countries never considered it to be an environmental problem but a social and economic one, linked to inequity. With an increasing understanding of both the seriousness of the threat of dangerous climate change and the interlinkages with a range of other issue areas, the number of international arenas tackling the issue multiplied in the 2000s.

Existing international organisations have taken steps to integrate climate change concerns in their operations (e.g. World Bank 2008), and a range of new, more or less institutionalised forms of international cooperation have been initiated, for example, with the bodies of other multilateral environmental agreements (van Asselt et al. 2005). Furthermore, different UN bodies, including the Security Council, have started to address the issue (Sindico 2007). This has resulted in an increased fragmentation of global climate governance in terms of the actors engaged and the approaches taken to influence behaviour at different levels (Pattberg and Stripple 2008). Some of these initiatives have involved the highest level of political leaders such as the G8 Summits in 2005, 2007 and 2008, while others involve deliberations of ministers or other senior officials such as the Gleneagles Dialogue on Climate Change, Clean Energy and Sustainable Development initiated by the G8, or the Major Economies Process on Energy Security and Climate Change launched by US President Bush in 2007. Other initiatives have taken the shape of multi-stakeholder partnerships involving governments, corporations and/or non-governmental organisations. These partnerships have often focused on one particular clean technology, such as the Carbon Sequestration Leadership Forum and the International Partnership for a Hydrogen Economy, or have supported investment and policy development in broader areas, such as the Renewable Energy and Energy Efficiency Partnership. Several of these partnerships were initiated around the World Summit on Sustainable Development in Johannesburg in 2002. In contrast, the focus of this Special Issue, the APP, is a rather special form of partnership, as we shall discuss further below, in terms of its origin, institutional form and approach.

All these initiatives operate in parallel to the UN-based multilateral process, which in 2007 launched negotiations towards a post-2012 climate change regime, expected to reach their crescendo in December 2009 (see generally Biermann et al. 2010). Many of the initiatives have in common that they address research, development, deployment and diffusion of clean energy technologies, and they take on mitigation as one of their main themes (de Coninck et al. 2008). Furthermore, all initiatives bring together a limited number of key players (e.g. major emitters, large economies, countries interested in

specific technologies, and/or specific business sector actors). In addition, the various arrangements are only loosely linked to the UN climate regime.

Climate policy research has increasingly focused on this growing fragmentation of global climate governance (Biermann et al. 2009, in press). Most of this research has examined the potential for effective climate change mitigation through multiple agreements between likeminded country coalitions as opposed to a more 'universal' approach including all countries (e.g. Sugiyama and Sinton 2005; Victor 2007; Hof et al. 2009). Another recurring theme has been how these initiatives may interact with the UN climate regime (e.g. McGee and Taplin 2006; Lawrence 2007; van Asselt 2007). Our analysis of the APP is part of these efforts, but also identifies further research directions in the broader theoretical context of the effectiveness and legitimacy of legalization and global governance.

3 Overview of the APP

On 28 July 2005, the APP was officially announced in Vientiane, Laos, by the then six participating countries. This announcement came 4 years after US President Bush rejected the Kyoto Protocol; 3 years after the Australian Prime Minister Howard did the same; 5 months after the Kyoto Protocol had entered into force, thanks to Russia's long-pending ratification; and 3 weeks after the G8 Summit at Gleneagles, Scotland, where climate was high on the agenda. Little was known about the initiative prior to its announcement. It thus came as a surprise to many, and immediately elicited strong criticism on a number of grounds; particularly that it was undermining the Kyoto Protocol, that it would be ineffective in reducing emissions, and that it was just a public relations stunt to create the illusion that the two major Kyoto Protocol 'defectors', the US and Australia, were taking action (Lawrence 2009, this issue; Vihma 2009, this issue).

The six founding APP nations together accounted for almost half of global greenhouse gas emissions in 2001 (Fisher et al. 2006), and this was a major rationale given by the founders for creating the APP and for its potential to be effective. In 2005, the countries represented more than half of global carbon dioxide (CO_2) emissions and worldwide energy consumption, and almost half of global gross domestic product (GDP) and the world population (Table 1). However, there are also significant differences between the member countries: they cover a very broad range of per capita emissions and energy consumption, and the annual income per person varies significantly (Table 1). While all are market economies, their political and constitutional systems vary considerably, even if China is the only non-democracy in the group. Undoubtedly, one of the most important differences lies in how they interpret the principle of 'common but differentiated responsibilities and respective capabilities' put forward in the UN climate regime (see generally Rajamani 2005), and thus essentially how they view their respective obligations to address climate change now and in the future. All countries in the group, except for the US and Australia, were parties to the Kyoto Protocol and have supported the UN climate regime (although Canada started to waver later). The US and initially Australia declined to ratify the Protocol largely because developing countries like China and India were exempt from legally binding emission reduction commitments. South Korea had left the G77 in 1996, joined the OECD, and might be one of the first rapidly industrialising countries to take on legally binding commitments in the future. China, and even more India, however, have vehemently opposed taking on any emission reduction commitments in a post-2012 agreement (Korppoo and Luta 2009), emphasising the historic responsibility of industrialised countries and their own need to grow and reduce poverty. While members of the

	Share of global CO ₂ emissions (%) (excl. LULUCF*)	Share of global energy consumption (%)	Share of global GDP (%)	Share of global population (%)	CO ₂ emissions per capita (tonnes)	Energy consumption per capita (tonnes oil-eq.)	GDP per capita (US\$)
Australia	1.39	1.1	1.1	0.32	18.7	6	31,656
Canada	2.03	2.4	2.0	0.50	17.3	8.4	34,972
China	20.26	15.3	9.5	20.19	4.3	1.3	4,088
India	4.44	4.8	4.3	16.94	1.1	0.5	2,230
Japan	4.54	4.7	6.9	1.98	9.8	4.2	30,290
S. Korea	1.72	1.9	1.8	0.75	9.8	4.4	21,273
US	21.40	20.9	22.1	4.59	19.9	7.9	41,813
Total	55.75%	51.1%	47.7%	45.27%			

Table 1 Selected indicators for the APP nations; all data for 2005 (based on WRI 2009)

* Land use, land-use change and forestry

APP thus shared certain basic characteristics, such as their geographical location in the Asia-Pacific rim as well as their substantial energy needs and large total emissions, they differed significantly in others, notably their approach to climate governance. This begs the question why they agreed to join the APP in the first place. We will return to this question in the next section.

The APP was created as a non-legally binding 'compact' (APP Vision Statement 2006), aiming 'to meet (...) increased energy needs and associated challenges, including those related to air pollution, energy security and greenhouse gas intensities' (APP Charter 2006, para 1.1). Even though it is formally an intergovernmental partnership, it envisages a key role for private sector actors from companies and business associations. The Partnership focuses on greenhouse gas intensity (i.e. the ratio of greenhouse gases emissions and economic output), and stresses that development and poverty eradication are 'urgent and overriding goals internationally' (APP Charter 2006, para 1.1). Climate change mitigation is thus by implication only a subsidiary goal. The participating countries intend to achieve their goals through international cooperation on the development, diffusion, deployment and transfer of clean, efficient and cost-effective technologies (APP Charter 2006, para 2.1.1).

The primary working mode of the Partnership is through sector-specific task forces. Currently, the following task forces have been established: (1) aluminium, (2) buildings and appliances, (3) cement, (4) cleaner fossil energy, (5) coal mining, (6) power generation and transmission, (7) renewable energy and distributed generation, and (8) steel. Each of these task forces has developed an action plan, which sets out the main objectives and identifies activities and projects to be implemented. There is a possibility that new task forces will be established for sectors not yet included, such as road transport, for which a task force was proposed by Japan in 2008. The main decision-making body in the Partnership is the Policy and Implementation Committee (PIC), which 'oversees the Partnership as a whole, guides the eight Task Forces and periodically reviews their work'.¹ The PIC is composed of senior government representatives, often the same people who negotiate in the UNFCCC for their countries.² The PIC also approves the draft action plans

¹ See http://www.asiapacificpartnership.org/english/faq.aspx, retrieved May 24, 2009.

² Interview, Jan Adams, Department of Foreign Affairs and Trade, Australian Government, 1 December 2006.

submitted by the task forces. The US has a dominant position in the institutional set-up of the APP, as reflected in its founding role and its chairing of the PIC since its inception. Each task force in turn is led by a Chair and a co-Chair country. India and China, as the only non-OECD member countries, are also the only ones who do not hold the Chair of a task force but they serve as co-Chairs for two each.

In contrast with UN negotiations, civil society organisations have generally not been invited to the international meetings of the Partnership, even though the PIC is in principle open to invite 'relevant governmental, intergovernmental and non-governmental organizations, where appropriate' (APP Charter 2006, para 4.2). In addition to the private sector, organisations that have been invited to attend include the International Energy Agency and the Asian Development Bank. The participation of non-state actors is slightly broader in the implementation of specific task force projects, but overall the APP is a government initiated and driven collaboration with the business sector.

A closer look at the APP task force action plans reveals that most projects are designed to facilitate transboundary interactions between relevant actors in selected sectors in different member countries. Examples of activities include the exchange of specialists, joint analysis of sectoral mitigation opportunities, the organisation of workshops, and the development of best practice guides.³ The project descriptions differ in their level of detail, but some projects also include the demonstration of a new technology, such as the use of clean coal technologies in the cleaner fossil energy task force, and piloting the use of policy instruments in a country, such as building labelling in China. Other activities, for example in the steel and cement sectors, are aimed at the identification of benchmarks and performance indicators, however, none of the action plans sets any targets for emission reductions in their sector, and most project activities are unlikely to lead to direct emission reductions. The action plans provide a review of the relevant sectors and areas, and identify barriers to the deployment and diffusion of technologies.

At the time of writing, the PIC has met seven times, while the number of high-level ministerial meetings has been limited to two. The APP website lists 168 project activities, of which most are in the buildings and appliances (52) and renewable energy and distributed generation (37) task forces, whereas the number of projects in the steel (6), aluminium (7) and cement (10) sectors is still relatively low. So far, 16 projects have been cancelled, while 7 projects are listed as 'completed'.⁴

Although public funding is essential for the implementation of the Partnership in terms of leveraging private investments (Pezzey et al. 2008), pledges for APP activities have been rather limited. First, the previous US administration had difficulties securing approval for a part of its funding (van Asselt 2007). According to the US APP website, the US government has so far pledged US\$ 65 million to the Partnership, which is expected to result in additional funding of US\$ 480 million from non-governmental actors.⁵ Second, the new Australian government reduced the pledged funding from A\$ 150 million to A\$ 100 million over 5 years (Lawrence 2009, this issue). Third, the Canadian government has promised a mere C\$ 20 million spread over 3 years (Canada 2008). Public funding announcements for the other countries have not been made, although contributions are at least made indirectly at a small scale through the chairing of task forces and the hosting of APP meetings, workshops, etc.

³ See http://www.asiapacificpartnership.org/english/project_roster.aspx, retrieved April 29, 2009.

⁴ Ibid.

⁵ See http://www.app.gov/library/111306.htm, retrieved May 17, 2009.

4 Explaining the emergence and continuation of the APP

At the time the APP was formed, two closely linked multilateral climate treaties, both enjoying wide country participation, were already in force. This raises the question what could have moved the founding countries to pursue the establishment of the APP, and the others countries to accept the invitation. It seems likely from the timing and political context of the APP's formation that it would not have been created in the absence of the Kyoto Protocol, and that the APP was formed *'because* of it' (Biermann et al. 2009, in press). In order to provide a more detailed explanation, we have to look at the different rationales that various member countries may have had to establish or join the APP. We start by examining how the Partnership was initiated.

The conception of the APP by the US and Australia was influenced by the international political context at the time. There had been loose discussions between the US and Australia for at least a year—partly as a result of other technology-centred partnerships the countries had initiated—on how to involve major economies in the Asia-Pacific region in climate change mitigation.⁶ In early 2005, the US government decided to approach key countries in the region starting with the Australian government-which immediately expressed its support.⁷ The timing of these more concrete discussions on the APP was thus very close to the entry into force of the Kyoto Protocol. In February 2005, when the world was celebrating the hard-sought entry into force in a sort of defiant support of multilateralism after the US rejection, it is quite natural that the US wanted to improve its reputation and show some initiative. It seems logical that the US sought the support of the other Kyoto 'defector' in the enterprise. Australia, likewise, saw in the APP a way to justify its rejection of the Kyoto Protocol by embarking on an alternative path. The Howard government looked particularly towards the Asia-Pacific region, both through the APP and the Asia-Pacific Economic Cooperation (APEC) forum (Lawrence 2009, this issue).

The 'official' rationale for the two initiating countries was to find a way to engage India and China—the two largest greenhouse gas emitters among the developing countries and at the same time important trading partners—in climate change mitigation. For the US, the lack of 'meaningful participation' by these countries had been one of the principal reasons underlying its refusal to ratify the Kyoto Protocol (Skodvin and Andresen 2009, this issue), while this reasoning also played a role in Australia (e.g. Bulkeley 2001). By contrast, the APP was seen as a forum to directly cooperate with these countries. For the US, it was a way to work on a more manageable scale rather than having all countries involved; and to do so in a voluntary fashion with a more concrete and sectoral approach.⁸ In a similar vein, an Australian government official stressed that the primary goal of the APP was to: 'really (...) find a way and a place to work constructively with the big economies in our region on climate change mitigation but from a much broader perspective that is more in tune with their national interests'.⁹

An additional explanation for Australia's special role—as first invited and as initially most enthusiastic partner—in the APP is related to its political ties with the US. First,

⁶ Interview, Jan Adams, Department of Foreign Affairs and Trade, Australian Government, 1 December 2006.

⁷ Ibid.

⁸ Interview, official, US State Department, 12 March 2008.

⁹ Interview, Jan Adams, Department of Foreign Affairs and Trade, Australian Government, 1 December 2006.

Australia had originally been part of the JUSCANZ¹⁰ negotiation bloc in the climate negotiations—and still forms a coalition with the US and other countries through the 'Umbrella Group'. Second, there were close ideological similarities between the Bush administration and the Howard government, with both displaying a strong preference for 'voluntarism' and a privileged role for the private sector. Domestic strategies to address climate change in both countries were characterised by a business-friendly voluntary approach shunning the use of traditional regulation (Lawrence 2009, this issue; Skodvin and Andresen 2009, this issue; see also McGee and Taplin 2008). Third, the Howard government was a close ally for the Bush administration in the war in Iraq.¹¹

If international politics and relations were the dominating factor for the US and Australia to form the APP, they certainly also played a part in motivating the other countries to accept the invitation to join. Japan had belonged to the same negotiation coalitions as the US and Australia in the UN climate negotiations, while general diplomatic relations with the US also played a role (van Asselt et al. 2009, this issue). Throughout the negotiations, Japan had acted as an intermediary between the EU and US positions. After the US decided not to ratify, Japan sought to reengage the Americans in international climate politics-and the APP was one opportunity to do so. Similar motivations probably also played a role for South Korea, and perhaps even for India and China. In addition, it may be difficult to say no when powerful countries invite others to the table (Karlsson 2009). It is a pragmatic approach to keep good relations with the superpower, the US, and key trading partners in the region when very little investment is required, even if some of these countries were strongly critical of the US and Australian rejection of the Kyoto Protocol. All three countries-China, India and South Korea-also accepted invitations to the G8 Gleneagles Dialogue in 2006, as well as the Major Economies Meeting initiated by President Bush in 2007.

A second rationale for countries to join the Partnership can be found in the realm of domestic politics. This forms a complementary explanation for why Japan accepted the invitation (van Asselt et al. 2009, this issue). Japan's international position on post-2012 climate policy has been plagued by divergent approaches of its Ministry of Environment (MOE) and the stronger Ministry of Economy, Trade and Industry (METI), with the former displaying a preference for continuing along the lines of Kyoto, and the latter openly criticising the treaty. A third player in the domestic context is the Ministry of Foreign Affairs (MOFA), which is primarily interested in keeping good ties with the US, but also seeks to show leadership on environmental issues. METI was the main supporter of the APP in Japan, although MOFA made the decision to join. Despite MOE's focus on the Kyoto process it did not object to Japan's participation in the APP. The constellation of bureaucratic actors in Japan was thus conducive to Japan's joining of the Partnership. Another explanation at the domestic level is related to the possibility of rewards in the form of economic gains from transfers of financial or technological resources through APP projects. This can be pointed to as one of the main reasons for China's participation (Heggelund and Buan 2009, this issue). The National Development and Reform Commission saw the APP as providing a new avenue for technology transfer, in addition to the Kyoto Protocol's Clean Development Mechanism. Furthermore, several elements of the APP were in line with the country's international climate policy preferences, which

¹⁰ JUSCANZ refers to Japan, United States, Canada, Australia and New Zealand.

¹¹ However, on several issues, such as the International Criminal Court, the US and Australian positions diverged, with Australia as a strong supporter of this radical strengthening of international law and the US strongly opposing it (Lawrence 2009, this issue).

secured the support of the Chinese Ministry of Foreign Affairs. Notably, the Partnership's priority of sustaining economic growth while addressing climate change, and the absence of any financial or other commitments for APP nations made participation in the Partnership a low-cost/low-risk decision. Finally, the objective of addressing energy security matters was in line with domestic preferences (Heggelund and Buan 2009, this issue). For other countries, economic benefits may also have played a role. In the Australian case, the prospect of increased trade in the important export sectors of coal, LNG and aluminium, and their contribution to mitigation was an important motivation for the industry to engage with the APP; '[p]rospective exports to US and clean technology in China [are] the holy grail'.¹² The Howard government considered the mineral, metal and energy sectors as key to the country's economic development and it was on the basis of the perceived negative impacts on these that they rejected Kyoto (Lawrence 2009, this issue).

A separate question is why some countries have continued to support the APP, even though it has diminished in importance, especially after the 2007 Bali Action Plan launched negotiations on a post-2012 agreement under the UNFCCC, including the US. For the US and Australia, this is all the more interesting given that their governments changed from Republican to Democrat in the US (January 2009), and from the conservative Liberal-National Party coalition to Labor in Australia (December 2007) (Lawrence 2009, this issue; Skodvin and Andresen 2009, this issue). In their election campaigns, Barack Obama (US) and Kevin Rudd (Australia) took a very different stance towards the UN climate process compared to their predecessors, and in the Australian case one of the first actions of the new government was to ratify Kyoto. In a similar vein, President Obama has taken a more positive stance in the post-2012 discussions (Skodvin and Andresen 2009), this issue; Korppoo and Luta 2009), although it remains to be seen what the US can commit itself to. Still, after they got into power neither of them has repudiated the APP—and Rudd explicitly announced Australia's continued involvement (Lawrence 2009, this issue).

Although clearly an initiative of the previous administration, President Obama has not yet made any public statements on the APP-neither in favour nor against it. Still, it is likely that the new administration will continue with the initiative, although probably more embedded in the UNFCCC process.¹³ Furthermore, a noteworthy development has been that Obama convened the 'Major Economies Forum on Energy and Climate', which shows similarities with the Major Economies Process initiated by the Bush administration as well as the APP, in particular its 'minilateral' approach involving only a limited number of countries (Skodvin and Andresen 2009, this issue). There are a number of possible explanations for the US' continuation of the APP. First, the two main reasons that prevented ratification of the Kyoto Protocol-protection of the American economy and participation by major developing economies—have not yet disappeared. These issues still play a prominent role in the US Congress discussions, and will likely remain critical in securing US participation in a future climate agreement (Skodvin and Andresen 2009, this issue). Second, although the US has taken a more positive stance in the UN negotiations, the APP and Major Economies Forum are still the only major international climate change initiatives of the US administration, and they may serve as an informal supplement for international negotiations and sector-based cooperation (Skodvin and Andresen 2009, this issue; Vihma 2009, this issue). Third, the fact that the US initiated the APP, even though under another administration, might make it difficult for the current administration to

¹² Interview John Daley, Australian Industry Greenhouse Network, 29 November 2006.

¹³ Frank Biermann, 15 June 2009, Personal communication.

withdraw support. A withdrawal may negatively affect their standing and relationship towards the other APP members.

Australia's continued participation in the APP can be described as a 'pragmatic decision' (Lawrence 2009, this issue). Prime Minister Rudd explicitly related its involvement to Australia's status as the world's major coal exporter, and China as the main importer. Furthermore, maintaining good relations with domestic industries involved in the APP likely played a role. However, the APP is now a much less prominent prong of Australia's involvement at the international level. The budget for the APP has been reduced (see above), and attention has shifted to the UN negotiations.

For Japan, the interesting question about the continuity of the Partnership is not related to changes in government, but rather how it is possible that it has become one of the most avid proponents of the APP, given that it had such a strong symbolic link with the Kyoto Protocol (van Asselt et al. 2009, this issue). Japan's position can be explained not only by the inter-ministerial conflicts that have characterised its domestic politics, but also by the strong private sector support of the APP, which includes industries directly involved in some of the APP task forces. Furthermore, from a strategic perspective, Japan has heavily promoted the APP as a prime example of the 'sectoral approach', which it has advocated in the post-2012 negotiations in the UN context (van Asselt et al. 2009, this issue).

5 The nature of the APP: hard or soft, public or private?

The second theme we explore in this Special Issue, concerns the question whether the APP's nature reflects any particular shift in national and global environmental governance. The Partnership seems to pose a definitional challenge to social scientists along two related dimensions: the hard–soft continuum of legalization, and the public–private continuum of governance.

First, norms (or institutions, rules and laws as alternative and/or overlapping concepts) come in very different shapes and forms; they can be formal and informal, legally binding or voluntary, etc. In an international context where the notion of law is less straightforward, some scholars have suggested the concept of 'legalization' to encompass this diversity of norms (Abbott et al. 2000; Brütsch and Lehmkuhl 2007). Under the umbrella of legalization, norms can then be differentiated into how 'hard' or 'soft' they are: where hard law is seen to entail a higher degree of legal obligation, precision and delegation, softer law displays less of these features, and is thus more voluntary and vague (Abbott and Snidal 2000).

The APP is based on an intergovernmental agreement, but does not fall under the definition of a treaty, as countries have made it clear that the Partnership should not create any legal rights and duties (APP Charter 2006). The designation of an international agreement is not determinative with regard to the classification as a treaty.¹⁴ Hence the usage of the word 'partnership' would not prevent it from comprising a treaty under international law if the substance of the agreement was clearly intended to be legally binding. While this is not the case, the usage of a 'Charter', which is commonly reserved for constitutive international agreements (e.g. the UN Charter), gives it a more formal, almost treaty-like basis. Furthermore, the agreement contains several clauses that can

¹⁴ Article 2(1) of the Vienna Convention on the Law of Treaties.

It is clear that whereas the UNFCCC and Kyoto Protocol constitute legally binding treaties—and can thus be considered 'hard law'—the APP is intended not to have any legal effects, and could be considered to fall within the scope of 'soft law' (Vihma 2009, this issue). However, this characterisation of APP as soft *law*, implying outcomes in the form of norms, can be questioned. The founders of the APP emphasise that it is not a policymaking process, but rather a 'project oriented exercise', ¹⁵ only resulting in concrete action. However, norms cannot be separated from practice, and the APP undoubtedly contributes to developing norms in various ways. First, the constellation of the Partnership itself—as a voluntary enterprise focused on economic development and technology cooperation-can be seen as a 'counter norm' to the dominating approach of climate governance rooted in hard law. McGee and Taplin (2009, this issue) describe how the APP has been used as a 'discursive contestation' of the international climate regime, and can be considered a 'deregulatory' form of ecological modernisation, 'favouring non-binding activity to facilitate trade in cleaner technologies and practices rather than the binding emission reduction targets and regulatory institutions of the international carbon market'. The discussion on interplay with the UN climate regime below further highlights the APP's possible impact on the future shape of hard law, where one scenario is that it 'softens' the post-2012 climate regime by influencing it to move away from specific country-based absolute emission reduction commitments and/or include aspirational, sector-based goals (Vihma 2009, this issue). Second, the type of activities which are foreseen in the task forces clearly include explicit norm development such as benchmarking, identifying and promoting best practices and standards and labelling.

Turning to the second continuum along which we can locate the Partnership, governance comes in all shapes; from being an all-government affair (unicentric or hierarchical governance) to comprising pure private actor initiatives (multicentric governance). The governance concept has won fame in recent years because it can encompass all types of actors. Some scholars further divide the concept of governance into public and private governance, and then refer to 'hybrid' forms of governance as something in between where both state and none-state actors are involved (Bäckstrand 2008; Andonova et al. 2009; McGee and Taplin 2009, this issue).

Choosing the designation of the APP on this continuum is far from straightforward. The founders call it a public–private partnership which would put it in the hybrid governance category, although McGee and Taplin (2009, this issue) argue that it is an 'elite form' of hybrid governance, given the limited participation of civil society organisations. However, states are the dominant actors: the APP was initiated by governments alone; the founding Charter was signed only by governments; and the top layer of the governance structure is confined to governments. Furthermore, the PIC is comprised of solely government representatives (McGee and Taplin 2009, this issue). The private sector representatives are only active in the task forces but also here the governments act as Chairs and co-Chairs. Nonetheless, the whole ethos of the APP is to engage the private sector as the main actors and to 'elevate the role of non-state actors in the international response to climate change' (McGee and Taplin 2009, this issue). Government officials in the initiating countries put this in stark contrast with the UN based climate regime, where business actors have a much

¹⁵ Interview, Jan Adams, Department of Foreign Affairs and Trade, Australian Government, 1 December 2006.

more marginal role.¹⁶ In conclusion, the APP has a hybrid character, covering both the public and private forms on the governance continuum, which makes the analysis of its legitimacy challenging and multifaceted (see below).

6 Interplay between the APP and the UN climate regime

The third theme of this Special Issue deals with the interplay between non-UN initiatives like the APP and the UN climate regime. The existence of a multitude of approaches in global climate governance could exert both a positive and negative influence on the efforts under the UNFCCC umbrella (Biermann et al. 2009, in press). On the positive side, overlapping approaches could lead to some form of competition among the initiatives, and a diffusion of best policy practices. Initiatives with fewer participating nations may also lead to faster emission reductions, as they do not have to go through lengthy and complex negotiation processes. Additionally, they may eventually be able to tackle areas and controversial issues which have remained unaddressed in the multilateral framework, such as energy policy and specific industry sectors. On the other hand, initiatives involving a limited number of players could lead to a disproportionate influence of powerful countries. Furthermore, a plethora of forums addressing climate change gives a confusing signal to private actors that want to invest in cleaner technologies. Finally, the various non-UN initiatives often address only a part of the climate change problem, and most of them do not tackle the issue of climate impacts and adaptation (Biermann et al. 2009, in press). As a result of the potential interactions, the relevance of non-UN initiatives for future climate governance, depending on the extent of their success or failure, should not be underestimated. This leads us to the question: how does the APP interact with the UN climate regime?

McGee and Taplin (2006) addressed this question by examining the interplay between the APP and the Kyoto Protocol, focusing on the claim that the APP is 'complementary' to the Protocol. Participating countries have been at pains to make it clear that the Partnership is meant to complement, and not replace, the treaty (e.g. APP Vision Statement 2006; see Vihma 2009, this issue). However, McGee and Taplin (2006, p. 178) argue that the APP cannot be considered complementary '[i]f one policy obstructs or undermines the effectiveness of another'. They posit that the mere existence of a voluntary, non-binding alternative to the Kyoto Protocol reduces the incentive to participate in the climate regime for countries with emission reduction commitments (McGee and Taplin 2006; see also Christoff and Eckersley 2007). Kellow (2006, p. 300), however, argues that the APP rather presents a 'valuable new model for multilateral negotiations', emphasising the benefits of approaches with a limited number of players.

In their contribution, McGee and Taplin (2009, this issue) build on their previous claim, by assessing whether the main features of the APP and other initiatives involving the US, Australian and Canadian governments—such as the Major Economies Process and the APEC Sydney Declaration—represent an alternative discourse in global climate governance. They argue that these non-UN initiatives have been employed by these governments in order to contest future emission reduction commitments. McGee and Taplin (2009, this issue) support their claim by pointing to various design features present and absent in these initiatives as compared to the UN climate treaties. Whereas the Kyoto Protocol is

¹⁶ Interview, Jan Adams, Department of Foreign Affairs and Trade, Australian Government, 1 December 2006; Interview, official, US State Department, 12 March 2008.

characterised by absolute greenhouse gas emission reduction targets for developed countries, differentiation between developed and developing countries, and the promotion of market-based flexibility mechanisms, these are all conspicuously absent in the design of the APP. Instead, the Partnership—as well as the other non-UN initiatives—relies more on aspirational emissions intensity targets and public–private sector-based cooperation to promote cleaner technologies and practices. The 'discursive coalition' promoting this alternative vision was led by the US, Australia and Japan, and later received support from Canada. However, the coalition only received limited support from countries like China and India. Furthermore, the coalition seems to have weakened following the changes in government in the US and Australia (see above).

Vihma (2009, this issue) approaches the interplay between the APP and the UN climate regime from a different angle, by examining the extent to which any influence of non-UN initiatives like the APP can be witnessed in the UN negotiations. In UN meetings in 2007–2008, several industrialised countries participating in the APP—Australia, Canada, Japan and the US—made various references to the Partnership, in particular advocating the 'sectoral approach' it takes, as well as its voluntary bottom-up approach. Japan in particular has been active in promoting the APP as a prime example of its proposed sectoral approach, even though the sectoral approach it later suggested in the UN negotiations does not match the model of the APP (van Asselt et al. 2009, this issue). In this example of 'cognitive interaction' (Oberthür and Gehring 2006), the APP was thus used as a model of sectoral cooperation, with a view to influencing the UN negotiations. Vihma (2009, this issue) argues that although sectoral approaches have indeed found their way into the negotiations—notably in the Bali Action Plan—other elements of the APP, such as its voluntary, bottom-up approach, have not been adopted (yet).

The exact influence of the APP and other non-UN initiatives on the development of the UN climate regime remains difficult to pinpoint. However, the contributions to this issue show that there are ways in which the Partnership affects the future shape of global climate governance. In this regard, a more comprehensive analysis of the interplay between the APP and the climate regime may be worthwhile following the possible conclusion of the post-2012 UN negotiations in Copenhagen in December 2009. At this time, the US government position on the future of the APP may also have been clarified, providing some indication of the viability of the Partnership.

7 Concluding remarks

After the initial reactions of excitement, outrage and indifference in the start-up phase of the APP, the Partnership has left the radar screen of many observers. The Partnership itself has mainly focused on the first small steps of implementing projects. The UNFCCC negotiations launched in Bali reaffirmed to many the central importance of the UN process in the international efforts to address climate change. This feeling was strengthened by the ratification of the Kyoto Protocol by the Australian government and the positive engagement that President Obama is making with that process.

Although these signs could be interpreted as unequivocal support for the UN climate regime, it is unlikely that the APP will cease to exist. However soft the arrangement is, there is considerable inertia in closing down institutionalised activities. All participating countries have invested time and resources in the venture and over 100 projects have been set in motion. Furthermore, it is by no means evident that post-2012 climate governance will be solely focused on the UN process. A future climate agreement could still be

accompanied by flanking governance arrangements of countries and private actors that are not satisfied with the negotiation outcomes, or that seek to fulfil their commitments using different forums. Moreover, initiatives outside the UNFCCC will remain relevant as they could influence the shape of UN climate governance at the cognitive level. Already, the sectoral approach promoted in the APP has reached the UNFCCC negotiation agenda; even though there is no consensus yet on how such an approach should be part of a future agreement.

We conclude that the APP is very likely to continue its work and that it has had at least cognitive impacts on the global climate regime. However, we would also argue that there is a need to look at the APP in the larger context of the effectiveness and legitimacy of different forms of global governance. In this regard, the central questions are: what is the impact of a governance arrangement on the problems it is designed to create; and how legitimate is its claim to authority?

It is still too early to make judgements on how the APP will affect greenhouse gas emissions in its member countries, and as with all attempts of measuring regime effectiveness it will be almost impossible to assign emission reductions—or greenhouse gas intensity improvements, to use the Partnership's own yardstick-to the APP alone. However, the meagre public funding injected into the APP, the unclear vision of how technology development is going to work, as well as the lack of project activities aimed directly at emission reductions does not lead to high expectations. Still, the sectors involved have huge potential to reduce emissions by adopting best practices from other countries, so if there is a significant amount of learning taking place among private actors, it could potentially have an impact. The low expectations about the effectiveness of the APP are in line with assumptions made about hard and soft law. It has been noted that soft law lacks the strong surveillance and enforcement offered by hard law (Kirton and Trebilcock 2004) and may lead to reduced compliance (Shelton 2000).¹⁷ On the other hand, there are claims that soft law is better at dealing with uncertainty and a changing technology driven environment (Abbott and Snidal 2000; Reinicke and Witte 2000; Shelton 2000); facilitating cooperation and compromise over time (Abbott and Snidal 2000; Chinkin 2000); and enable learning, norm diffusion and changing interests (Abbott and Snidal 2000; Trubek et al. 2005). These features all have relevance for the situation in which the APP was created, as its members had very different positions and interests in addressing climate change, there was considerable uncertainty on the nature of the post-2012 regime, and technology and innovation play an important role.

In addition to effectiveness, governance is frequently evaluated against the criterion of procedural legitimacy. Besides effectiveness, equity is an important part of what some refer to as 'output legitimacy'. Equity impacts of the APP are, however, difficult to evaluate, especially at this early stage. The financial flows for technology transfer to the developing countries in the APP are still very humble, and it is hard to determine the relative benefits for the different member countries and/or companies participating. It is much easier to consider how the APP performs in terms of input or procedural legitimacy.¹⁸ Possible sources of procedural legitimacy include: a fair degree of participation both by government and non-governmental actors; a high level of transparency in the norm development and implementation process; and good accountability mechanisms

¹⁷ However, many of the rather sweeping assumptions on the character of hard and soft law which we refer to here are made without considering the significant diversity within these norm categories, and/or have weak empirical basis for comparison (Karlsson-Vinkhuyzen and Vihma 2009).

¹⁸ See Scharpf (1999) for a discussion of output and input legitimacy.

(Karlsson-Vinkhyzen and Vihma 2009). The APP has not actively sought to expand its membership beyond its original six members, and with the exception of Canada, it is thus a very small and exclusive club in comparison to the UNFCCC. It has also been a closed club in relation to NGOs and the public in general; these groups have neither been informed nor consulted before the launch of the Partnership, nor have they been given a place at the table later. The business community, some researchers and international organisations have been the main groups invited to participate so far. In terms of transparency the public has access to the APP websites which include information on the task force action plans, project implementation and the PIC meetings. Thus, while the participation of non-state stakeholders in developing soft law can be an important source of their legitimacy, the APP has also confirmed the concern raised that soft law can compromise democratic participation when certain stakeholders are left out (Kirton and Trebilcock 2004), and normal systems of accountability are bypassed.

We hope the contributions to this Special Issue will not only bring out the latest findings on the APP, but also highlight some issues that merit further scrutiny. The main outstanding question with respect to the APP's effectiveness concerns the eventual achievements of its task forces in reducing barriers to—and facilitating—the development and transfer of climate friendly technologies and thus contributing to the reduction of greenhouse gas emissions. A further key issue is the potential interaction between the Partnership and a post-2012 agreement under the UNFCCC. On legitimacy, there is a need for more systematic comparison of accountability arrangements around the APP in each of the member countries as compared to the UN climate regime, including an analysis of parliamentary oversight and the ability of elected representatives to influence the continuation or termination of the APP. Finally, it would be valuable to develop our understanding of what moved Canada, the late but eager member of the APP, and India, one of the countries most frequently emphasising the importance of the UNFCCC, to join the APP. We expect that the contributions to this Special Issue have built a solid foundation for such further inquiry.

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References

- Abbott, K. W., Keohane, R. O., Moravcsik, A., Slaughter, A.-M., & Snidal, D. (2000). The concept of legalization. *International Organization*, 54(3), 401–419.
- Abbott, K. W., & Snidal, D. (2000). Hard and soft law in international governance. *International Organization*, 54(3), 421–456.
- Andonova, L. B., Betsill, M. M., & Bulkeley, H. (2009). Transnational climate governance. *Global Environmental Politics*, 9(2), 52–73.
- APP Charter (2006). Charter for the Asia-Pacific Partnership on Clean Development and Climate. Retrieved May 20, 2009 from http://www.asiapacificpartnership.org.
- APP Vision Statement (2006). Vision statement of Australia, China, India, Japan, the Republic of Korea, and the United States of America for a New Asia-Pacific Partnership on Clean Development and Climate. Retrieved May 20, 2009, from http://www.asiapacificpartnership.org.
- Bäckstrand, K. (2008). Accountability of networked climate governance: The rise of transnational climate partnerships. *Global Environmental Politics*, 8(3), 74–102.

- Biermann, F., Pattberg, P., van Asselt, H., & Zelli, F. (2009). The fragmentation of global governance architectures: A framework for analysis. *Global Environmental Politics*, 9(4) (in press).
- Biermann, F., Pattberg, P., & Zelli, F. (Eds.). (2010). Global climate governance beyond 2012: Architecture, agency and adaptation. Cambridge: Cambridge University Press.
- Brütsch, C., & Lehmkuhl, D. (2007). Complex legalization and the many moves to law. In C. Brütsch & D. Lehmkuhl (Eds.), Law and legalization in transnational relations (pp. 9–32). London: Routledge.
- Bulkeley, H. (2001). Governing climate change: The politics of risk society? Transactions of the Institute of British Geographers, 26(4), 430–447.
- Canada. (2008). Country statement—Canada. Retrieved May 17, 2009, from http://www.asiapacific partnership.org/pdf/vancouver/CountryStatement_Canada.pdf.
- Chinkin, C. (2000). Normative development in the international legal system. In D. Shelton (Ed.), Commitment and compliance: The role of non-binding norms in the international legal system (pp. 21–42). Oxford: Oxford University Press.
- Christoff, P., & Eckersley, R. (2007). The Kyoto Protocol and the Asia Pacific Partnership on Clean Development and Climate. In T. Bonyhady & P. Christoff (Eds.), *Climate law in Australia* (pp. 32–45). Sydney: Federation Press.
- de Coninck, H., Fischer, C., Newell, R. G., & Ueno, T. (2008). International technology-oriented agreements to address climate change. *Energy Policy*, 36(1), 335–356.
- Fisher, B. S., Ford, M., Jakeman, G., Gurney, A., Penm, J., Matysek, A., & Gunasekera, D. (2006). *Technological development and economic growth. Inaugural Ministerial Meeting of the APP, Sydney,* 11–13 January. ABARE Research Report 06.1. Canberra: Australian Bureau of Agricultural and Resource Economics.
- Heggelund, G., & Buan, I. F. (2009). China in the Asia-Pacific Partnership—consequences for UN climate change mitigation efforts? *International Environmental Agreements: Politics, Law and Economics*, 9(3).
- Hof, A. F., den Elzen, M. G. J., & van Vuuren, D. P. (2009). Environmental effectiveness and economic consequences of fragmented versus universal regimes: What can we learn from model studies? *International Environmental Agreements: Politics, Law and Economics*, 9(1), 39–62.
- Karlsson, S. I. (2009, February). G8 climate action from Gleneagles to Hokkaido—dying flare or lasting flame? Paper presented at the International Studies Association Conference, New York.
- Karlsson-Vinkhuyzen, S. I, & Vihma, A. (2009). Comparing the legitimacy and effectiveness of global hard and soft law: An analytical framework (manuscript on file with authors).
- Kellow, A. (2006). A new process for negotiating multilateral environmental agreements? The Asia-Pacific Climate Partnership beyond Kyoto. Australian Journal of International Affairs, 60(2), 287–303.
- Kirton, J. J., & Trebilcock, M. J. (2004). Introduction: Hard choices and soft law in sustainable global governance. In J. J. Kirton & M. J. Trebilcock (Eds.), *Hard choices, soft law: Voluntary standards in* global trade, environment, and social governance (pp. 3–29). Aldershot: Ashgate.
- Korppoo, A., & Luta, A. (Eds.). (2009). Towards a new climate regime: Views of China, India, Japan, Russia and the United States on the road to Copenhagen. FIFA Report 2009: 19. Helsinki: The Finnish Institute of International Affairs.
- Lawrence, P. (2007). The Asia Pacific Partnership on Clean Development and Climate (AP6): A distraction to the Kyoto process or a viable alternative? Asia Pacific Journal of Environmental Law, 10(3/4), 183– 209.
- Lawrence, P. (2009). Australian climate policy and the Asia Pacific Partnership on Clean Development and Climate (APP): From Howard to Rudd—Continuity or change? *International Environmental Agreements: Politics, Law and Economics, 9*(3).
- McGee, J., & Taplin, R. (2006). The Asia-Pacific Partnership on Clean Development and Climate: A complement or competitor to the Kyoto Protocol? *Global Change Peace & Security*, 18(3), 173–192.
- McGee, J., & Taplin, R. (2008). The Asia-Pacific Partnership and the United States' international climate change policy. Colorado Journal of International Environmental Law and Policy, 19(2), 179–218.
- McGee, J., & Taplin, R. (2009). The role of the Asia Pacific Partnership in discursive contestation of the international climate regime. *International Environmental Agreements: Politics, Law and Economics*, 9(3).
- Oberthür, S., & Gehring, T. (Eds.). (2006). Institutional interaction in global environmental governance. Cambridge, MA: The MIT Press.
- Pattberg, P., & Stripple, J. (2008). Beyond the public and private divide: Remapping transnational climate governance in the 21st century. *International Environmental Agreements: Politics Law and Economics*, 8(4), 367–388.

- Pezzey, J. C. V., Jotzo, F., & Quiggin, J. (2008). Fiddling while carbon burns: Why climate policy needs pervasive emission pricing as well as technology promotion. *The Australian Journal of Agricultural* and Resource Economics, 52(1), 97–110.
- Rajamani, L. (2005). Differential treatment in international environmental law. Oxford: Oxford University Press.
- Reinicke, W. H., & Witte, J. M. (2000). Interdependence, globalization, and sovereignty: The role of nonbinding international legal accords. In D. Shelton (Ed.), *Commitment and compliance: The role of nonbinding norms in the international legal system* (pp. 75–100). Oxford: Oxford University Press.
- Scharpf, F. W. (1999). Governing in Europe: Effective and democratic? New York: Oxford University Press.
- Shelton, D. (2000). Introduction: Law, non-law and the problem of 'soft law'. In D. Shelton (Ed.), Commitment and compliance: The role of non-binding norms in the international legal system (pp. 1–18). Oxford: Oxford University Press.
- Sindico, F. (2007). Climate change: A security (council) issue. Carbon and Climate Law Review, 1(1), 29– 34.
- Skodvin, T., & Andresen, S. (2009). An agenda for change in U.S. climate policies? Presidential ambitions and congressional powers. *International Environmental Agreements: Politics, Law and Economics*, 9(3).
- Sugiyama, T., & Sinton, J. (2005). Orchestra of treaties: A future climate regime scenario with multiple treaties among like-minded countries. *International Environmental Agreements: Politics Law and Economics*, 5(1), 65–88.
- Trubek, D. M., Cottrell, P., & Nance, M. (2005). "Soft law", "hard law" and European integration. In G. de Búrca & J. Scott (Eds.), Law and New Governance in the EU and the US (pp. 65–94). Oxford: Hart.
- van Asselt, H. (2007). From UN-ity to diversity? The UNFCCC, the Asia-Pacific Partnership, and the future of international law on climate change. *Carbon and Climate Law Review*, 1(1), 17–28.
- van Asselt, H., Gupta, J., & Biermann, F. (2005). Advancing the climate agenda: Exploiting material and institutional linkages to develop a menu of policy options. *Review of European Community and International Environmental Law*, 14(3), 255–264.
- van Asselt, H., Kanie, N., & Iguchi, M. (2009). Japan's position in international climate policy: Navigating between Kyoto and the APP. International Environmental Agreements: Politics, Law and Economics, 9(3).
- Victor, D. G. (2007). Fragmented carbon markets and reluctant nations: Implications for the design of effective architectures. In J. E. Aldy & R. N. Stavins (Eds.), Architectures for agreement: Addressing global climate change in the post-Kyoto world (pp. 133–160). Cambridge: Cambridge University Press.
- Vihma, A. (2009). Friendly neighbor or Trojan horse? Assessing the interaction of soft law initiatives and the UN climate regime. *International Environmental Agreements: Politics, Law and Economics*, 9(3).
- World Bank (2008). Development and climate change: A strategic framework for the World Bank Group. Washington, DC: World Bank.
- WRI. (2009). Climate Analysis Indicators Tool (CAIT) Version 6.0. Washington, DC: World Resources Institute.