

Towards an Effective Climate Architecture for Road Transport Sector: Lessons from Japan's Proposal for a Road Transport Task Force in the Asia-Pacific Partnership (APP)

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Abstract : The road transport sector accounts for about 16% of the total amount of global carbon dioxide, which is increasing rapidly. Due to its considerable economic growth, the Asia-Pacific region is among the most important areas when it comes to addressing greenhouse gas mitigation in terms of the road transport sector. This paper sheds light on Japan's proposal for a road transport task force in the Asia-Pacific Partnership on Clean Development and Climate (APP). This paper asks why the proposal failed despite its importance, and identifies the lessons and implications that this proposal has in terms of the shape of future institutional frameworks in the road transport sector that will address GHG emissions. As a result of the examination, this paper points out that the proposal had resulted in failure due to limitations that are rooted in a shift of the Japanese government's preferences from APP to the United Nations Framework Convention on Climate Change (UNFCCC) when it comes to pursuing its international climate policy in the road transport sector. Lessons from the failure of Japan's proposal to be adopted by the APP lead us to anticipate that climate policy in the road transport sector should be addressed at various levels and gradually facilitate a network between these efforts.

Key Words : Asia-Pacific Partnership on Clean Development and Climate, climate change, road transport sector, institutional framework, Japan.

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INTRODUCTION

The transport sector accounts for 23% of energy-related carbon dioxide (CO₂) emission, with a projected increase of nearly 50% by 2030 and more than 80% by 2050 (IEA, 2009). In particular, the road transport sector accounts for about 16% of the total global CO₂ emissions,¹ with expected growth from 4 gigatons in 2000 to more than 9 gigatons in 2050 (WBCSD, 2004).

Asia-Pacific is among the most important regions in addressing greenhouse gas (GHG) mitigation on the part of the road transport sector. This is because, first, Japan, Korea, China, and India are the major automobile manufacturing nations, as well as the key players in international climate negotiations, and therefore have the potential to effect changes to create a more sustainable road transportation sector on a global level. Second, Asia dominates the global carbon emissions, and in particular, emissions from the road transport sector are significantly on the rise accompanying the region’s economic growth. However, none of the Asian countries except Japan are bound by numerical emission reduction targets based on the Kyoto protocol of the UN Framework Convention on Climate Change, nor does there exist any effective institutional framework that covers emissions from the road transport sector in the Asia-Pacific region. Therefore, there is a need for regional/international governance that would effectively address CO₂ emissions generated by the road transport sector.

Despite of these important considerations, few studies in the literature have examined a shape and direction of future institutional framework or governance that will address GHG emissions on the part of the road transport sector. Rather, much of the existing literature focuses on analysis of the current national or supranational road transport climate policy. For instance, Shiroyama (2006) discusses the process of generating climate policy for road transport sector in Europe, while Mikler (2009) studies regional differences in climate

¹ OICA (11/29/2006 updated) The World’s Automobile Industry. <<http://oica.net/wp-content/uploads/2007/06/oica-depliant-final.pdf>>, 09/03/2011 referred.

policies among the road transport sectors in Japan, Germany, and the United States. Other related research deals with various policy options to reduce GHG emissions created by this sector at a global level. Ash and Braathen (2009) and Braathen (2009) emphasize the importance of fuel taxes in the road transport sector, while others analyzed the potential introduction of cap and trade (OECD, 2010; Ellerman *et al.* 2006). Furthermore, Bodansky (2007) proposed a sectoral approach that would set a global unified vehicle fuel economy standard.

This paper sheds light on Japan's proposal for a road transport task force in the Asia-Pacific Partnership on Clean Development and Climate (APP), which resulted in failure. This paper asks why the proposal failed despite its importance, and assesses the lessons and implications that this proposal holds in terms of the shape of a future institutional framework on the part of the road transport sector that addresses GHG emissions.

2. Background

To begin with, this section focuses on climate institutions that cover CO₂ emissions from the road transport sector. It points out the absence of effective institutional framework in this field. Focused institutions ranges from global level - such as United Nations Framework Convention on Climate Change (UNFCCC) and Ministerial Conference on Global Environment and Energy in Transport (MEET) - to regional level - Transportation ministerial meetings under Asia-Pacific Economic Cooperation (APEC), and Association of South East Asian Nations (ASEAN)-Japan Transport Partnership.

2.1 Global institution: UNFCCC

Having an advantage of globally harmonized climate policy under the UNFCCC framework is its *inclusiveness*. As a matter of fact, none of major automobile producing nations except Japan and the European Union are bound by numerical emission reduction targets under the Kyoto Protocol. It is ideal, if Parties of UNFCCC agree to set an inclusive Protocol to regulate all countries producing the automobiles to reduce GHG emissions. However on the other hand, the question is, whether it is *effective* to make an agreement at such a broad level.

Global policy-making suggests that numbers of stakeholders are involved and much more complex than national or regional level policy making: it includes wide varieties of countries, such as the hyper-poor country like Botswana and hyper-wealth country like US, and growing economy like China.

Unlike aviation and maritime sector, the land transport sector including the road transport sector have not been addressed in the UNFCCC negotiation. Emissions from fuel used in maritime and aviation transport sector have been addressed under the UNCCC since the first COP², because 1) emission from this sector does not belong to any countries, 2) unlike road transport sector, the destination of air and marine travel is well monitored. This section reviews the development of the UNFCCC regime, and demonstrates how the emissions from land transport sector have been actually discussed in the FCCC negotiations. In the end, it points out that the current negotiations leave some spaces to link institutions and initiatives that deal with the emissions from the road transport sector. This section briefly reviews the development of the UNFCCC regime, with a focus on how the land transport had been attempted to incorporate into UNFCCC framework.

The UNFCCC entered into force in March 1994 with its ultimate objective to achieve ‘stabilization of greenhouse gasses in the atmosphere at the level that would prevent dangerous anthropogenic interference with the climate system’, concerning ‘human activities have been substantially increasing the atmospheric concentrations of greenhouse gasses, that these increase enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth’s surface and atmosphere and may adversely affect natural ecosystems and humankind’ (UNFCCC, 1992). In order to achieve this objective, the Conference of Parties (COP) was created as a supreme decision-body, which meets for the first time in Berlin in 1995.

In 1997, Kyoto Protocol formally adopted at COP3, held in Kyoto, Japan. It set binding targets for 37 countries and European community for reducing greenhouse gas emissions, an average of 5% over against 1990 levels over 2008-2012. The Kyoto Protocol offers an additional means of meeting their target by three market-based mechanisms: emission trading, which allows countries that have emission units to spare to sell excess

² UNFCCC. Emissions from fuel used for international aviation and maritime transport (international bunker fuels). <http://unfccc.int/methods_and_science/emissions_from_intl_transport/items/1057.php>. Accessed on 5th September 2012.

capacity to countries that are over their targets; Clean Development Mechanism (CDM), which allows a country with an emission-reduction/limitation commitment under the Protocol (Annex B Party) to implement an emission-reduction project in developing countries; Joint Implementation (JI), which allows a country with an emission reduction/limitation commitment under the Protocol to earn emission reduction units from an emission-reduction project in another Annex B Party to meet its Kyoto target. The Kyoto Protocol entered into force in 2005. The first Meeting of the Parties to the Kyoto Protocol (MOP1) took place in Montreal, Canada. In accordance with Kyoto Protocol requirements, Parties launched negotiations on the next phase of the Protocol (future commitments for industrialized countries) under ad-hoc working Group on Kyoto Protocol (AWG-KP).

In 2007, Parties agreed on the ‘Bali Action Plan’ at COP13, held in Bali, Indonesia. The Bali Action Plan established Ad-hoc Working Group on Long-term Cooperative Action under the Convention (LWG-LCA), to conduct ‘a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome and adopt a decision’ at COP15.

Prior to the COP15, there were two different proposals that aimed to integrate transport sector into the UNFCCC framework: 50by50 initiative (the Global Fuel Economy initiative) and Bellagio Declaration. The former initiative was proposed by four international organizations, International Transport Forum (ITF, the former Council of the European Transport Ministers), International Energy Agency (IEA), United Nations Environmental Programme (UNEP) and FIA Foundation in March 2009. Its main emphasis is placed on improvements of fuel economy of automobiles at world level. The central claim of this initiative is to ‘facilitate large reductions of greenhouse gas emissions and oil use through improvements in automotive fuel economy in the face of rapidly growing vehicle use worldwide’, and aims to improve average fuel economy (reduction in fuel consumption per kilometre) of 50% worldwide by 2050. According to this initiative, this could be possible through the improvement of new vehicle fuel economy 30% by 2020 and 50% in 2030 in the OECD countries, and improvement of the economy of new vehicles at this rate would make 50% improvement of the average fuel economy worldwide by 2050 (FIA Foundation 2009). It follows, one of the aim of this initiative is to show the concrete methodology or the

potential emission reduction in developing countries, in order to facilitate these countries to positively set an emission reduction target, and to be reflect within global road transport climate policy framework.³

The latter initiative, the ‘Bellagio Declaration’ was launched on May 2009 by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Transport Research Laboratory (TRL), Union Internationale des Transport Publics (UITP), and Veolia Transport. Its biggest aim is to integrate climate policy on the transport sector into the post-2012 institutional framework, emphasizing the importance of financing mechanisms that would give the incentives for Non-Annex I countries to putting into the place for the right transport policies with the GHG emission reductions. To do so, it claims following three principles should be reflected in post-2012 framework: first, effective climate action is incomplete without addressing the overall system performance of the Transport Sector; second, climate action in the transport sector should recognize co-benefits; and third, more effective vehicle on finance mechanisms and associated procedures should catalyse sustainable transport policies, programmes and projects. Within these three principles, the third principle has the most important implication regarding the future institutional framework, since the current crediting mechanisms such as Clean Development Mechanisms (CDMs) are highly difficult to be applied to this sector.

In 2009 at COP15 held in Copenhagen, Denmark, ‘Copenhagen Accord’ was *taken note* by the COP. Based on this agreement, countries submitted non-binding emission reduction pledges: the U.S. pledged 13% against 2005 level; the EU pledged 20-30% reduction against 1990 level; Japan pledged 25% reduction against 1990 level. Developing countries have also submitted their voluntary reduction targets: China pledged to reduce carbon intensity by 40-56% compared to 2005; India pledged to reduce carbon intensity by 20-25% compared to 2005; Brazil pledged 36.1-38.9% reduction compared to business as usual; and South Africa pledged 34% reduction compared to business as usual. Furthermore, developed countries have pledged to provide new and additional resources, approaching USD 30 billion for the period 2010-2012 and with balanced allocation between mitigation and adaptation in developing countries as a fast start funding, and to raise USD 100 billion a year by 2020.

³ Interview with Dr. Lewis Fulton, 2010.

Regarding to the land transport sector, there was an attempt to incorporate transport sector into Ad-hoc Working Group on Long-Term Cooperative Actions (AWG-LCA) sessions on the sectoral approach during COP15. According to an interview conducted with the MLIT official who participated to COP15 meeting as one of the Japanese delegations, the word ‘transport’ was temporarily included in the AWG-LCA documents on the sectoral approach, until the word disappeared in the final negotiation of the text due to diverging views on transport climate policy between Parties.⁴

At COP 16 with the chair of Mexico in 2010, governments agreed on the ‘Cancun Agreements’. The agreements include establishing the ‘Green Climate Fund’, a scale up long-term financing for developing countries, as well as a ‘Technology Executive Committee’ and a ‘Climate Technology Centre and Network (CTCN)’ to enhance action on technology development and transfer to support action on mitigation and adaptation. The CTCN has a particular relevance to the future CO₂ emissions from the road transport sector. The CTCN aims to “facilitate a network of national, regional, sectoral and international technology networks, organizations and initiatives” with a view to “facilitating international partnerships among public and private stakeholders to accelerate the innovation and diffusion of environmentally sound technologies to developing countries” (UNFCCC 2011). It follows, the CTCN leaves spaces to link or perhaps integrate, UNFCCC framework with international/regional institutions and initiatives, that deal with low-carbon technologies.

At COP17 held in Durban, South Africa in 2011, Parties to the Convention decided to launch a process to ‘develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties’, through a subsidiary body under the Durban Platform for Enhanced Action, which shall ‘complete its work as early as possible but no later than 2015 in order to adopt this protocol, legal instrument or agreed outcome with legal force at the twenty-first session of the Conference of the Parties and for it to come into effect and be implemented from 2010’. At the same time, Parties agreed to make the technology mechanism operational, by 1) launching the selection process for the host of CTC, and 2) agreed on the terms of reference for the CTCN, a set of guiding parameters for the operation of the CTCN.⁵

⁴ Interview with Deputy Director of Road Transport Bureau, 2009.

⁵ UNFCCC technology Executive Committee (2012) Overview of the key outcomes of the Durban conference. <http://unfccc4.meta-fusion.com/kongresse/120215_tec02_bonn/pdf/3_Outcomes_of_Durban_DTT%20final.pdf>.

Recently, a growing number of international fora deal with the emissions from the road transport sector, including government partnerships (such as MEET, ACEAN, APEC), and public-private-partnerships (such as former-APP). Bearing mind that these institutions may have a future linkage with the UNFCCC regime, the next sections focus on these institutions.

2.2 Government-coordinated institutions: MEET, APEC, and ASEAN

MEET

The first meeting of MEET was held on January 2009 in Tokyo, hosted by Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT). Its purpose was to ‘enhance international collaborative efforts in the transport sector to address climate change and air pollutions issues’, with the participation from 22 countries covering about 60% of the world’s CO₂ emission from transport (MLIT n.d.).

Participating countries include Australia, Brunei, Cambodia, Canada, France, Germany, India, Indonesia, Italy, Japan, Korean, Laos, Malaysia, Myanmar, Philippines, Russia, Singapore, Thailand, U.K., U.S., and Vietnam. Institutions include European Community, Association of South East Asian Nations, Asian Development Bank, International Energy Agency, International Transportation Forum, Japan Bank for International Cooperation, Transport Research Laboratory, International Association of Public Transport, United Nations Centre for Regional Development, United Nations Environment Program and the World Bank.

Despite of its wide range of participations from major emitting countries, the MEET is a rather young forum, with less clear views on future institutional framework for the road transport sector at this stage. However, unlike UNFCCC where more than 180 countries are involved in decision-making process, members of MEET are much more focused on transportation issue, with participations of major automobile manufacturing nations of Japan, Europe, US, and major Asian countries. This leaves MEET the potential to be the major forum in formulating international road transport climate policy.

APEC

APEC was intended to deal mainly with economic matters, with its primal purpose to foster

free and open trade and investment, economic and technological cooperation. Participating countries include Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam, Japan, Korea, China, Taiwan, Hong Kong, Mexico, Papua New Guinea, Australia, New Zealand, U.S., Canada, Peru, Chile and Russia.

APEC transportation ministerial meeting was started since 1995 with the aim to exchange views and opinions on integrated, safe, efficient, and environmentally sustainable transportation issue of common interest in the Asia Pacific region. At its 6th APEC transportation ministerial meeting, members agreed ‘continue to work towards harmonization of standards on vehicle safety and GHG emissions’, and to ‘exchange information on ways to promote the development of cleaner and more fuel-efficient vehicles’.

ASEAN

ASEAN was formed in 1967 by Indonesia, Singapore, Thailand, Philippines, Malaysia, and later Brunei, Vietnam, Yammer, Laos, Cambodia attained membership. In ASEAN framework, ASEAN-Japan transport ministers meeting was established in 2003 to facilitate policy dialogue on human resource development and cooperation in the facilitation of cargo transport, physical distribution and logistics, safety in maritime transport and safety and efficiency of international air transport, and advanced transport technologies to ensure security and protect the environment. At 8th ASEAN and Japan transport ministers meeting held in November 2010, Ministers recognized the importance of international harmonization of technical regulations and type approval system for vehicles, in order to promote broad use of safer and more environmentally-friendly vehicles.

3. Conceptual Framework

Global governance in the issue of climate change is characterized by an increasing diversity in its negotiating fora and actors. Not only nation states but also non-state actors including business, civil society and local and regional government authorities are becoming to have more important roles in the UN and non-UN frameworks such as the APP (Jagers and Stripple 2003; Backstrand 2008; Pattberg and Stripple 2008; Biermann et al. 2009). The APP

in particular, is the non-UN framework based on the public-private partnerships (PPPs). According to Borzel and Risse (2005) and Backstrand (2010), one of the potentials of the PPPs in sustainable development is to enhance implementation in governance. The question then arises why the Japan's proposal to establish road transport sector task force failed, if the APP was expected to paved the way for more effective governance in addressing CO₂ emissions from this sector.

In order to analyze why the proposal failed, it is therefore important to focus on how Japan's proposal for a road transport sector task force was developed, and examine how position in both the Japanese government and the automobile industry had been changing in this development.

The data analyzed in this paper were collected from related documents, including position papers and proposals submitted by Japanese government to United Nations Framework Convention on Climate Change (UNFCCC) as well as proposals made by both Japanese Ministries and automobile industry. In order to enhance credibility of the research, several interviews are conducted with policy-makers including a deputy director of the Japanese Ministry of Land, Infrastructure, Transport and Tourism (MLIT), an administrator of the International Transportation Forum, and a policy researcher of the Netherlands Assessment Agency, as well as with a senior general manager and a project general manager of environmental affairs in the Japanese automobile industry.

4. Japan's Proposal at the APP

The APP was formed by the United States, Japan, Australia, China, India, and Korea in July 2005. In 2007, Canada joined the APP, and consequently there were seven member countries in this partnership.

The aim of the APP was to pursue climate mitigation through a voluntary, non-legally binding, technology-oriented approach. Although the founder of the APP stressed that it was intended as a "complementary" institution to the Kyoto Protocol of UNFCCC, it has been argued that the APP was actually intended as an "alternative" institution to the legally binding protocol (McGee and Taplin, 2006; Christoff and Eckersley, 2007; Lawrence, 2007;

van Asselt, 2007).

The APP enhanced partnerships between the public and private sectors, and established the following eight task forces: (1) aluminum, (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. As a governing body of the APP, the Policy and Implementation Committee (PIC) was established as the decision-making authority with the power to establish new task force.

In April 2011, the APP concluded its work. However, a number of projects relating to the eight task forces will be continued and transferred to other forums. Japan was in a unique position within the APP: Prior to the membership of Canada in 2007, it was the only country that had adopted a GHG emission reduction commitment under the Kyoto Protocol; however, it had neither fully introduced cap-and-trade in order to fulfill its reduction commitment, nor rejected the Kyoto Protocol for the sake of the technology-oriented governance arrangements such as the APP (van Asselt *et al.*, 2009).

In May 2008, Japan, represented by the Ministry of Foreign Affairs (MOFA), the Ministry of Economy, Trade and Industry (METI), the Ministry of the Environment (MOE), and the MLIT proposed to establish a road transport sector task force at the APP's 5th PIC in Seattle.⁶ According to interview conducted to the MLIT official, among the four Ministries of Japanese government, the METI played a leading role to propose an establishment of road transport sector task force.⁷

The aim of this proposal was “to enhance sustainable mobility by minimizing automobiles’ negative impact on environment, such as energy consumption and CO₂ emissions, and simultaneously increasing the convenience of automobiles.”⁸

Just like other task forces, the proposal for the road transport sector would begin with data collection and identifying best practices, followed by more concrete projects. What should be noted here is that the proposal suggested that not only fuel economy improvements

⁶ METI (05/23/2008 updated) News Release on Outcomes of the 5th Meeting of Policy and Implementation Committee of Asia Pacific Partnership on Clean Development and Climate. <<http://www.meti.go.jp/press/20080523008/20080523008.pdf>>, 09/03/2011 referred.

⁷ Interview with Mr. Akihiko Hoshi, Deputy Director of Road Transport Bureau, Japanese Ministry of Land, Infrastructure and Transport and Tourism, conducted on 17th July, 2009, Tokyo, Japan. METI, which is responsible for economic activities, has been actively involved in Japan’s climate policy in the protection and promotion of the competitiveness of Japanese automobile industry.

⁸ Matsunaga, M (05/20/2008 updated) Proposal for the Establishment of a Road Transport Sector. <http://www.asiapacificpartnership.org/pdf/seattle/RoadTransport_METI.pdf>, 09/03/2011 referred.

as the main policy instrument, but also it emphasized a so-called “integrated approach”—an approach that integrates fuel economy improvements, the introduction of bio-fuels, eco-driving, and modal shifts in a balanced manner.

This approach was also proposed by the Japan Automobile Manufacturers Association (JAMA) at APP.⁹ In fact, it was constituent to the strategies of the industry: According to an interview conducted with the senior general manager of environmental affairs in the Japanese automobile industry, the establishment of a road transport sector task force in APP had been discussed in the field, along with the possibilities of an integrated approach with other counterparts of automobile manufacturers associations, such as the Alliance of Automobile Manufacturers and the Korean Automobile Manufacturer’s Association. This proposal successfully gained generally positive opinions from these associations.¹⁰

The Japanese government emphasized the need for a task force to be established at the APP’s PIC several times (see Table 1). Initially when Japan proposed to establish road transport sector task force at APP’s 5th PIC, Japan perceived that other member countries recognized the importance of its establishment.¹¹ At the 6th PIC, other member countries of the APP expressed positive comments on the establishment, but the same time they expressed concerns on the impact of the financial crisis that deteriorated a business performance of their automobile industry.¹² This concern grew stronger by the 7th PIC, where member countries emphasized to carefully consider an establishment of the task force.¹³ At APP’s 3rd Ministerial and 8th PIC in Shanghai, Japan “requested the Policy and Implementation Committee to explore broadening our work to include other sectors, such as transport, and to enhance cooperation with other Parties and the private sector”.¹⁴ Despite of Japan’s efforts,

⁹ JAMA (07/17/2008 updated) JAMA Proposal for the Establishment of a Road Transport Sector. <<http://www.pp.u-tokyo.ac.jp/SEPP/openforum/20080617/20080617-GraSPP-SEPP-Toyota-slides.pdf>>, 01/15/2012 referred.

¹⁰ Interview with the senior general manager of environmental affairs in the Japanese Automobile Industry, conducted on 14th July, 2009, Tokyo, Japan.

¹¹ MOE (05/20/2008 updated) News Release on Outcomes of the 5th Meeting of Policy and Implementation Committee of Asia Pacific Partnership on Clean Development and Climate. <http://www.env.go.jp/press/file_view.php?serial=11446&hou_id=9744> 01/21/2012 referred.

¹² MOE (10/30/2008 updated) News Release on Outcomes of the 6th Meeting of Policy and Implementation Committee of Asia Pacific Partnership on Clean Development and Climate. <http://www.env.go.jp/press/file_view.php?serial=12388&hou_id=10381>, 01/21/2012 referred.

¹³ MOE (05/20/2009 updated) News Release on Outcomes of the 7th Meeting of Policy and Implementation Committee of Asia Pacific Partnership on Clean Development and Climate. <http://www.env.go.jp/press/file_view.php?serial=13564&hou_id=11152>, 01/21/2012 referred.

¹⁴ APP (10/27/2009 updated) Communiqué of Third Ministerial Meeting Shanghai. <http://www.asiapacificpartnership.jp/pdf/3rd_4.pdf>, 01/21/2012 referred.

this road transport sector task force never materialized when the member countries agreed to terminate the APP in 2011.

This can be explained by a shift in the Japanese government's preferences from the APP to the UNFCCC in pursuing its international climate policy in relation to the road transport sector.

Table 1. Milestones of the Japanese proposal for a road transport task force in APP

Year	Milestones
2008 May	Japan proposed a road transport task force at the APP's 5 th PIC in Seattle.
2008 September	Japan hosted a workshop on the establishment of a road transport task force at the APP.
2008 October	Japan explained the need for the establishment of a road transport task force at the APP's 6 th PIC in Vancouver.
2009 May	Japan emphasized the need for consideration of the establishment of a road transport task force at the APP's 7 th PIC in Gold Coast, Australia.
2009 October	The need for the establishment of a road transport task force in order to enhance the APP's coverage of CO ₂ emissions was again emphasized by Japan at the APP's 3 rd Ministerial and 8 th PIC in Shanghai.
2011 April	The APP concluded its work

According to an interview conducted with an MLIT official, the Japanese government originally sought to reflect the outcomes and efforts of the APP road transport sector task force in the UNFCCC's discussions. However, there was a problem of data collection procedures in the developing countries such as China, India and Korea, which may consume too much time to meet its time to incorporate road transport sector in the post-2012 processes. Therefore, taking the issue of timing and expected ineffectiveness of the proposed task force to influence the negotiation procedure of UNFCCC into account, government officials became skeptical about the establishment of the task force.¹⁵¹¹⁾

¹⁵ Interview with Mr. Akihiko Hoshi, Deputy Director of Road Transport Bureau, Japanese Ministry of Land, Infrastructure and Transport and Tourism, conducted on 17th July, 2009, Tokyo, Japan.

Second, there were growing doubts on the part of the industries as to the task force's comprehensiveness and effectiveness when it came to mitigating GHG emissions, especially after the financial crisis in 2008. According to interviews conducted with individuals in Japanese automobile industry, there were divided opinions as to the establishment of the task force under the APP. On the one hand, one side argued that the APP would be more efficient in pursuing road transport climate policy, as it is a limited multilateral partnership with participation from the major automobile manufacturing nations of Japan, the U.S., Korea, and to some extent India and China – in contrast to the UNFCCC, which would have to take the form of a consensus among more than 180 countries.¹⁶ On the other hand, the other side put forward that the establishment of the task force would have limitations, as the APP was *only* an Asia-Pacific partnership, and Europe was not included. In addition, Japanese automobile industry perceived that both the U.S. government and the American automobile industry were concerned about the establishment of a task force after the financial crisis in 2008, which resulted in the reluctance of the U.S. automobile industry to enhance the partnership.¹⁷

Third, the proposal lacked detailed methods and incentives for developing countries. Being primarily a technology-oriented framework, the financial mechanisms that are essential for the technology transfer were lacking, unlike in the UNFCCC. The “integrated approach” was itself rather loose, and did not specifically seek to improve the fuel economy of cars among its member states; rather, it sought to integrate modal shift, the diffusion of bio-fuels, and eco-driving, as explained above. Such a modal shift in particular requires large investments in infrastructure, and the conventional clean development mechanism (CDM) is of limited use in the transport sector due to its difficulty in setting boundaries.¹⁸ Therefore, the lack of a concrete financial mechanism may have limited the prospects of the proposal.

As a result of these issues, Japan's position on an international framework for road transport climate policy shifted: Japan came to pursue an international climate policy for the

¹⁶ Interview with the senior general manager of environmental affairs in the Japanese Automobile Industry, conducted on 14th July, 2009, Tokyo, Japan.

¹⁷ Interview with a project general manager of environmental affairs in the Japanese Automobile Industry, conducted on 15th July, 2009, Tokyo, Japan.

¹⁸ For instance, it is highly difficult to measure the numbers of passengers along with modal shift statistically. Furthermore, infrastructure maintenance requires more financial aid than technology transfer, since in spite of the large amounts of costs required at the beginning, the recovery is very hard to collect—this makes it difficult for the private sector to invest in this sector. In addition, there are only 2 CDM projects with Certified Emission Reductions (CERs) relating to the transport sector, out of 1155 projects. UNEP Risoe Centre (08/01/2011 updated) CDM Pipeline Overview. <<http://www.uneprisoe.org/>>, 09/03/2011 referred.

road transport sector through the establishment of an advisory group for sectoral technology cooperation under the UNFCCC framework and the APP. The function of this advisory group would be to “identify and focus on key technologies by the drawing of technology roadmaps containing a shared vision by industry, academia and government and would report to the Convention” (UNFCCC, 2008).

It follows from this description that the proposed advisory group will have the characteristics of a public-private partnership with a purely technology-oriented approach, just like the APP. At the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA), in its fifth session at Bonn, this advisory group upgraded its mandate with the following functions: to “identify necessary technologies which are currently available and will be available in the future, to analyze appropriate ways for promoting transfer of existing technologies, to analyze the emission reduction potentials...to assist technology transfer under the financial mechanism”.¹⁹ These series of efforts made by Japan suggest that it has transferred all of the efforts made by the APP into the proposed body under the UNFCCC, with the function of an advisory body with financial mechanisms.

At the 15th Conference of Parties of the UNFCCC (COP15) held in Copenhagen, Denmark, the Japanese government proposed the establishment of an advisory group for sectoral technology cooperation under the UNFCCC framework at AWG-LCA sessions on the sectoral approach. According to an interview conducted with the MLIT official who participated to COP15 meeting as one of the Japanese delegations, Japan negotiated incorporation of the transport sector into this proposed advisory group as one of the main sectors to be addressed. As a result, the word “transport” was temporarily included in the AWG-LCA documents on the sectoral approach; however, the word disappeared in the final negotiation of the text for the following two reasons. First, the Japanese proposal on the sectoral approach was not accepted by the other Parties of the UNFCCC. The European Union perceived it to be a financial mechanism that would foster technology transfer. In addition, developing countries were cautious when it came to the idea of evaluating their emission reduction potentials. Second, the U.S. emphasized that there was no common recognition of the sectoral approach. Therefore, the chair decided not to agree on the sectoral

¹⁹ UNFCCC (last update unknown) Submission of Japan for Preparation of the Chair’s Document for the AWG-LCA5. <http://unfccc.int/files/kyoto_protocol/application/pdf/japan060209.pdf>, 09/03/2011 referred.

approach for the transport sector due to the lack of consensus among the Parties.²⁰

3. Analysis

Although Japan's proposal resulted in failure both under the APP and the COP15 due to the lack of supports from each member countries, governments agreed to establish 'Climate Technology Centre and Network (CTCN)' under the UNFCCC framework at 16th Conference of Parties of the UNFCCC (COP16) held in Cancun, Mexico. The CTCN aims to "facilitate a network of national, regional, sectoral and international technology networks, organizations and initiatives" with a view to "facilitating international partnerships among public and private stakeholders to accelerate the innovation and diffusion of environmentally sound technologies to developing countries" (UNFCCC, 2011). It follows, the CTCN shares similarities with the APP and Japan's proposal of an advisory group for sectoral technology cooperation under the UNFCCC framework.

It is therefore important to examine climate policy related to the road transport sector at three different levels, in order to seek the shape of a future institutional framework that will address the emissions from road transport sector. First is global level efforts to address emissions from road transport sector, namely at the UNFCCC. Second, more enhanced engagement among major emitter countries could be created to form a common ground from which to address emissions from this sector. Finally, strengthening fuel economy regulations at national level would largely contribute to reduce CO₂ emissions from vehicles.

If the issue is to be dealt with at the UNFCCC level, one of the possible mechanisms would be nationally appropriate mitigation actions (NAMAs), which are widely accepted by developing countries, since they have a voluntary basis and are motivated by both financial and technological transfers from developed countries. In fact, few projects in the transport sector are currently under discussion in NAMAs. This leaves the possibility of incorporating GHG mitigation from the transport sector into the framework of NAMAs. In fact, 28 of the 44 NAMA submissions refer to activities in the transport sector up until now.²¹

²⁰ Interview with Mr. Akihiko Hoshi, Deputy Director of Road Transport Bureau, Japanese Ministry of Land, Infrastructure and Transport and Tourism, conducted on 4th February, 2010, Tokyo, Japan.

²¹ Transport2012. (last update unknown) NAMA submissions to the UNFCCC: An overview from a transport perspective.

In contrary, some would argue that it will be highly difficult to reach an agreement in the UNFCCC, where 180 countries have to reach a decision. The role of the UNFCCC, then, is to provide financial mechanisms focusing on transport.²² In this case, one of the potential methods of addressing emissions from the road transport sector would be to engage with a limited number of countries that are significant in terms of their emissions, and to help these countries to generate sensible transport policies by linking the UN financial mechanism with practical transport policies being developing at several negotiating forums, such as the Ministerial Conference on Global Environment and Energy in Transport (MEET), transportation ministerial meetings under the Asia-Pacific Economic Cooperation (APEC), and the Association of South East Asian Nations (ASEAN) – Japan Transport ministers’ meetings.

A fuel economy regulation is the conventional way to reduce CO₂ emissions from road transport sector. Japan and Europe has the highest fuel economy regulations in the world. Japan has introduced 16.5km/L target in 2007, and Europe set 120g-CO₂/km target in December 2007 under the EU law. In the U.S. where Corporate Average Fuel Economy (CAFE) standard had been stagnant, President Obama announced to drastically improve fuel economy standard by 2016. Based on these trends, one could argue that stringent fuel economy regulation in major automobile manufacturing and importing nations, such as Japan, Europe and the U.S., would function as the international standard that emerging car manufacturing countries such as China and India would follow.²³ For example, the European Commission has set the legislation to reduce CO₂ emission from the passenger cars that are sold in the European Union. Countries such as Japan, China or Korea, or all other countries that sells cars in the European Union have to clear the standard set by the legislation. Therefore, more and more cars are being sold by these countries, this rule could automatically work as the effective climate policy for road transport sector among these countries.

CONCLUSIONS

<http://www.transport2012.org/bridging/ressources/files/1/1493,NAMA_proposals_May_2011.pdf>, 01/23/2012 referred.

²² Interview with Administrator, International Transportation Forum (ITF). Interview Conducted on 5th March 2010, Paris, France.

²³ Interview with Mr. Anco Hoen, Policy Researcher for Traffic and Transport, The Netherlands Assessment Agency. Interview conducted on 8th March 2010, Den Haag, Netherlands.

This paper has focused on the Japanese proposal for the establishment of a road transport sector under the APP. As a result of the analysis drawn from this case, it can be concluded that its limitations were rooted in a shift of the Japanese government's preferences from the APP to the UNFCCC when it came to pursuing its international climate policy in the road transport sector. This shift was due to following three reasons: Japanese government's intention to incorporate APP into UNFCCC framework; growing misgivings in the automobile industries concerning a lack of cooperation from U.S. counterparts and the absence of European automobile industries in the APP; its vague and ambiguous means of technology transfer, which lacked financial mechanisms that would be essential for an "integrated approach."

Lessons from the failure of Japan's proposal to be adopted by the APP lead us to anticipate that climate policy in the road transport sector should be addressed at various levels and gradually facilitate a network between these efforts. At the UNFCCC level, NAMAs are a potential mechanism that could mitigate GHG emissions from the road transport sector by providing both financial and technology transfer mechanisms. At the international or regional level, more enhanced engagement among major emitter countries would be a common ground from which to address emissions from this sector. Finally, strengthening fuel economy between major automobile manufacturing nations could be a vehicle to reduce significant amount of CO₂ emissions from road transport sector.

The next step of this research is threefold: first, the limitations and possibilities of NAMAs that incorporate the road transport sector should be addressed; second, possible linkages among regional institutional frameworks that effectively deal with road transport GHG emissions should be sought; and third, examinations on whether stringent fuel economy regulation in major automobile manufacturing and importing nations could function as the international standard that emerging car manufacturing countries or not should be addressed.

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