The 21st Century Public Policy Institute
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Policy Proposals for Multinational Global Warming Negotiations (Part II)

– Developing Country Support –

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Executive Summary

(1) Major developing countries, or countries that are currently categorized as “developing countries” (non-Annex I countries), and thus are not obligated to reduce emissions under the existing framework, but are projected to continue to increase emissions, are strongly urged to commit to emissions mitigation under the post-Kyoto framework.

(2) Therefore, the following three points are essential in considering developing country support:
   1) International negotiations should proceed in a way that support is extended to developing countries only upon their commitment to mitigation actions;
   2) the mechanism is designed to accommodate itself to the improvements in the financing capacity of economically-growing developing countries, so that developing countries do not become permanently dependent on developed countries for funds; and
   3) that public and private funds are reasonably and efficiently distributed according to the characteristics of projects and policies eligible for financial support.

(3) Only major developing countries that have agreed to commit to national and sectoral efficiency targets under the next frame work should be eligible for public funding. However, such countries are capable of procuring private funds, and therefore, they should basically have limited access to public funds. Non-major developing countries should be eligible for public funding. The conditions for receiving such support should be especially differentiated between least developed countries (LDCs) and small islands developing states (SIDS), so that the latter would be subject to looser standards.

(4) Given the many unresolved problems involved with carbon crediting, including measurability, reportability and verifiability and the risk of oversupply, direct financial support should be the prioritized method of support. In regard of technical support, we seek the furtherance of onsite technical assistance, which has proven successful in the Asia Pacific Partnership on Clean Development and Climate (APP).

(5) We propose the establishment of a Data Center for Energy and CO2 Efficiency. The Center's mission would be: 1) standardizing data studies /accumulation /analysis and methodologies; 2) developing standards and labeling; 3) examining national reduction targets and supporting the compilation of nationally appropriate mitigation action (NAMA) plans; and 4) providing integrated financial and technology support (establishing a sectoral advisory group and supporting is operations)

(6) The current CDM scheme should be revised as follows:
   1) Expanding and promoting product CDM and programmatic CDM
   2) Introducing multi-project baselines
   3) Fundamentally improving project validation/registration process

Introduction

This policy proposal is composed of two parts, the first part in which we discussed the bottom line that Japan should maintain in multinational negotiations on global warming. This paper is the second part of our proposal and will address ways to support developing countries. Of the five conditions that we set out in Part I[1] for Japan to sign a post-Kyoto framework agreement, we will take a further look at Condition 4, calling for major developing countries to commit to intensity-based targets and taking mitigation actions, and Condition 5[2], requiring that support measures for developing countries be implemented only upon the fulfillment of Condition 4 and that they encourage self-reliance.

*This proposal is a result of research conducted at the 21st Public Policy Institute and does not represent the views of Nippon Keidanren. The proposal was written in part with the cooperation of Hitachi Research Institute.

1. The Scope of Developing Countries

In the global warming issues debate to date, the countries listed in Annex I have been understood to be "developed countries," and those not, to be "developing countries." However, the forty countries listed in Annex I represent the OECD member countries and economies in transition as of 1992, and today, after seventeen years, the definition of "developed countries" should be revised.

Particularly, with the ever-increasing amount of CO2 emissions accompanying

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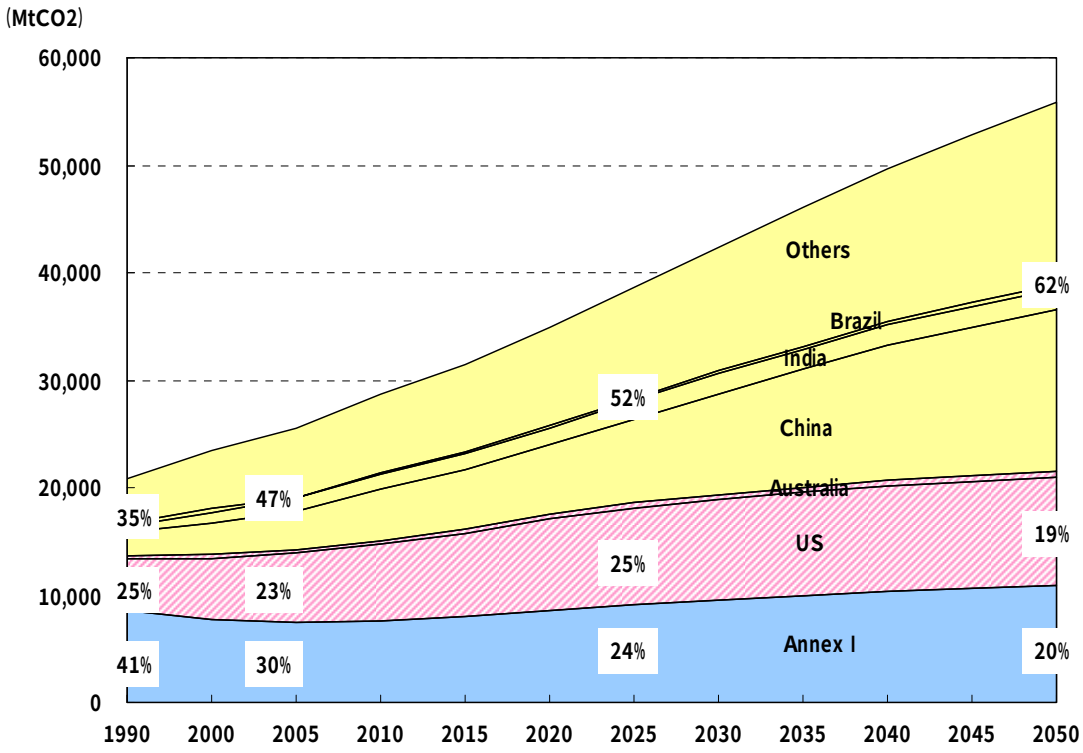
[1] "Chikyu Ondanka Kokusai Kosho ni Kansuru Seisaku Teigen –Dai Ichibu: Nihon ga Tuikyu subeki Kosho no Bottom Line-" (Policy Proposals for Multinational Global Warming Negotiations –Part I: Japan's Bottom Line in Negotiations-" 17 April 2009 http:www.21ppi.org/pdf/thesis/090417.pdf (Japanese only)

[2] Condition 4 (Major developing countries must commit to intensity-based targets and taking mitigation actions.) provides, "Economically advanced major emitting countries with, such as China and India, must take measurable, reportable and verifiable reduction actions in a manner that carbon leakage issues will be solved; for example, 1) establish at least an economy-wide intensity-based target and take reduction actions (in this case, policies and measures); and 2) commit to setting intensity-based targets and take measurable, reportable and verifiable reduction actions in energy-intensive industries."
Condition 5 (Support measures for developing countries can only be implemented upon commitment of Condition 4 and must encourage self-reliance.) provides that "technological and financial support for developing countries must be extended only when Condition 4 is fulfilled. Furthermore, new support measures must encourage commitments by future major emitting developing countries and the self-reliant fulfillment of these commitments and should not be of a character that will make developing countries eternally dependent on developed countries from both financial and technological aspects.

the rapid economic growth of non-Annex I countries, there is a greater need than ever for a new definition. Annex I countries accounted for the larger part, or 53%, of global CO2 emissions in 2005, but in the mid- to long-term, Annex I countries and non-Annex countries are projected to become reversed (see Figure 1). Therefore, the current situation calls for action on the part of "developing countries" (non-Annex I countries), not obligated to reduce greenhouse gas emissions under the present Kyoto Protocol, to mitigate and reduce greenhouse gas emissions.

Figure 1: CO2 Emissions Forecast

(Estimates by Research Institute of Innovative Technology for the Earth (RITE))



(Note) US and Australia have been excluded from Annex I figures. Non-Annex I countries are presented in yellow.

Paragraphs 1(b)(i)and (ii) of the Bali Action Plan adopted at COP13 in December 2007 stipulate the actions to be taken by "developed countries" and "developing countries". They provide that "developed countries" make "[m]easurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances"; and that "developing countries" implement "[n]ationally

appropriate mitigation actions in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner."

Furthermore, in the Declaration of Leaders Meeting of Major Economies on Energy Security and Climate Change (Toyako Summit) adopted in July 2008, leaders agreed that "developed countries" would "implement, consistent with international obligations, economy-wide mid-term goals and take corresponding actions in order to achieve absolute emission reductions and, where applicable, first stop the growth of emissions as soon as possible, reflecting comparable efforts among them" and that at the same time, "developing countries" would "pursue nationally appropriate mitigation actions with a view to achieving a deviation from business as usual emissions."

While the abovementioned landmark meetings have emphasized the need for enhanced commitment from "developed countries" to enhance their commitment to reduce emissions, they have also called for reduction actions on the part of "developing countries." This indicates that countries have come to share an understanding that given the emissions projected for the future, it would be impossible for Annex I countries bearing emission reduction obligations to solve climate change issues alone.

In this context, major developing countries, or countries that are currently categorized as "developing countries" (non-Annex I countries), and thus are not obligated to reduce emissions under the existing framework, but are experiencing substantial economic growth accompanied by ever-increasing emissions, are strongly urged to commit to emissions mitigation, based on the principle of "common but differentiated responsibilities and respective capabilities." Japan proposed in a submission paper[3] to the UNFCCC in September 2008 that the scope of Annex I countries, or countries bearing reduction obligations under the next framework, should be expanded to include not only the conventional Annex I countries but also OECD member countries and countries whose economic development stages are equivalent to those of OECD members[4]. Such proposals of

[3] http://unfccc.int/resource/docs/2008/awglca4/eng/misc05.pdf

[4] (i) OECD member countries, (ii) countries that are not OECD members but whose economic development stages are equivalent to those of the OECD members (qualifications should be made in a comprehensive manner according to: GDP per capita, living standards, GHG emissions per capita, GHG emissions per GDP, share of the country's GHG emissions in the world, contributions to historically accumulated GHG emissions / future GHG emissions, industrial structure / energy composition, population, natural and geographical characteristics

differentiation among “developing countries” will be indispensible elements of a post-Kyoto framework.

2. Basic Concept of Financial Support for Mitigations Action in Developing Countries

Mitigation actions in developing countries are projected to require a considerable amount of funds. According to IEA estimations, an additional 1.1 trillion dollars, more than half of which will be invested in developing countries, will be needed annually in order to halve emissions by 2050. Finding such financial sources has become the largest issue to be resolved in establishing a sustainable framework for emissions reduction, especially because it has become internationally acknowledged that the conventional method of transferring funds through CDM (clean development mechanism) alone is far from sufficient and therefore a new mechanism for financial support is called for.

However, even a financial support mechanism introduced in the name of climate change cannot be sustainable without rules. A new financial mechanism must be most careful about the following three points:

(1) International negotiations should proceed in a way that support is extended to developing countries only upon their commitment to mitigation actions;
(2) the mechanism is designed to accommodate itself to the improvements in the financing capacity of economically-growing developing countries, so that developing countries do not become permanently dependent on developed countries for funds; and
(3) that public and private funds are reasonably and efficiently distributed according to the characteristics of projects and policies eligible for financial support.

Given the recent overall downturn of domestic economy in each country, if these three conditions are not met, taxpayers in developed countries might not acknowledge any financial support extended to developing countries, and thus the post-Kyoto framework will risk losing political ground. From this perspective, financial support from developed countries to developing countries should be based on the following structure.

2.1. National eligibility for support

The eligibility of a country to receive support should be categorized in the following manner:

1) Developing countries experiencing significant economic growth and therefore have due responsibilities and capabilities (hereinafter, “major developing countries”) should be differentiated from other developing countries.
2) As described in Section 1, only major developing countries that have agreed to commit to the same national and sectoral efficiency targets as those of current Annex I countries under the next framework should be eligible for public funding. However, such countries are basically capable of procuring private funds, and therefore, they should have limited access to public funds.
3) Non-major developing countries should be eligible for public funding. The measurability, reportability and verifiability requirements regarding the effects of financial support and the conditions for receiving such support should be especially differentiated between least developed countries (LDCs) and small islands developing states (SIDS), so that the latter would be subject to looser standards.
4) The end-recipients of supporting funds should be entities that are in direct need of such funds in order to implement actual mitigation action; the governments of countries eligible for financial support should avoid becoming the end-recipient in principle.

2.2. Options for Support Measures

Developing countries may opt to receive the following support for their mitigation actions:

1) Financial support
   a) Direct financial support
   b) Carbon crediting
2) Technological support
   a) Installation of project equipment
   b) Onsite technical assistance
   c) Licensing

Considering the numerous unresolved problems involved with carbon crediting which will be discussed below in section 2.5, we propose in section 2.3 that direct financial support be prioritized. In regard of technical support, we seek the furtherance of onsite technical assistance, which has proven successful in the Asia Pacific Partnership on Clean Development and Climate (APP), as will be discussed in section 3-4).

Licensing should be used for technology transfer within the framework of existing international agreements such as WTO and WIPO, prioritizing the creation of an appropriate environment for the smooth transfer of technology on a business basis (particularly capacity building, including improving legal protection and enforcement systems for intellectual property rights, in developing countries). It should be noted that government interference in compulsory licensing or technology purchase entails high risks of aggravating the business environment, rather inhibiting technology transfer.

2.3. Categorization by Sectors Receiving Direct Financial Support

Sectors receiving direct financial support should be categorized as follows. “Public funds” shall hereinafter refer to bilateral ODA funds, loans made by international public development financial institutions and financing from funds such as the GEF.

1) Even if the recipient project is in a major developing country that has been approved its eligibility to receive public funds, if it is related to an industrial sector (including the electricity sector) the following categorization should be applied in order to minimize risks of distorting international competition:
   a) Investments required by a particular sector to achieve its sectoral intensity target:
   - negative cost options (the project is estimated to be economically viable enough to be self-sustainable, but remains unrealized due to certain impediments.)

     ⇒ Funds are procured through regular transactions between private financial institutions and the project actor. The project itself should not be eligible for financial support; as undermentioned in b), support should be limited to the elimination of non-market factors that inhibit the realization of the project.

- positive cost options

  ⇒Support is based mainly on joint loans from private and public financial institutions; however, the grant element should be smaller than b).

b) Support for policy measures to create an enabling environment for the achievement of the intensity target in a particular industry. Support is envisaged to be centered on the intergovernmental provision of information and public technological cooperation on appropriate policy measures, including policy design know-how and human resource development, and that the major developing country should take.

   ⇒options for support include technological assistance, loans and grant aid, such as ODAs

2) When the financing is for a non-industrial sector (transport, office/household sectors) in a major developing country that has been approved its eligibility to receive public funds, the largest emission reductions being achieved through the diffusion of end-use consumer products such as automobiles and electric household appliances with a given level of energy efficiency, a financial support mechanism for the spreading of such products will need to be established. However, because in this case, households are usually the end-users, it would be difficult to design a scheme for loans from private financial institutions and would be more effective to seek ways to take advantage of public funds, by employing product CDM, for example.

3) Furthermore, if necessary, mutual trade expansion measures can also be considered as support measures for major developing countries that have been approved their eligibility for public funds. When a plant has been certified in a measurable, reportable and verifiable way that the intensity-based target to which a domestic industry is committed has been fulfilled, then products manufactured in that factory can be labeled and considered for tariff reductions or abolition. At the same time, any tariffs or nontariff measures that inhibit the introduction of best available technologies (BATs) and high efficiency products from developed countries should be eliminated.

2.4. Non-Major Developing Countries

Non-major developing countries will also be required to formulate regional programs containing measures to mitigate climate change, as stipulated in the United Nations Framework Convention on Climate Change (Article 4 paragraph

1(b)). These programs will contain nationally appropriate mitigation actions (NAMA). When a program is formally registered with the UNFCCC, the policy measures raised in it will gain access to various financial resources supporting mitigation actions. We propose that this process is assumed by the organization to be described in section 3.

Furthermore, non-major developing countries choosing to commit to intensity-based targets equivalent to those of major developing countries should be eligible for the trade expansion measures abovementioned in Subsection 2.3 3).

2.5. Status of Crediting in Support Measures

Under the next framework, responsible and capable major developing countries should be required to commit to mandatory national or sectoral efficiency targets. However, major developing countries contend that they should receive funds and technology transfer from developed countries based on historical responsibilities and their right to economic growth. Thus, intense diplomatic negotiations continue between developed countries and major developing countries.

Against this backdrop, crediting is often regarded as an effective method of providing support to developing countries. Crediting involves creating and issuing emission allowances (credits), thus encouraging technology transfer from developed countries to developing countries and inducing mitigation actions on the part of developing countries. This method tends to be referred to as a market-oriented method, in contrast to direct financial support, described above. However, it remains a question whether it is really “market”-oriented. Credits are created based on the emission reductions achieved by an emissions reduction project and issued to the private enterprise in the developed country that provided the emission-reducing technology so that the company may sell them in the market in order to recover investment funds; and hence, the reference to crediting as a “market”-based mechanism. However, rules for international transactions are decided in multinational negotiations, and therefore lack predictability for market participants; the amount of credits generated are greatly affected by how the baseline (projected emissions for the case in which the project was not implemented), which will serve as a comparative criterion for measuring actual emissions reductions, is determined; and domestic emissions trading market rules, including those on how freely credits can be disposed in the market, vary among countries. This presents a weakness of the scheme – the market price of credits can

tend to be unstable – and therefore, crediting cannot truly be a fully "market"-oriented method. Furthermore, although environmental integrity will be undermined without a strict baseline, the more stringent the baseline, the weaker the economic incentives to implement a project.

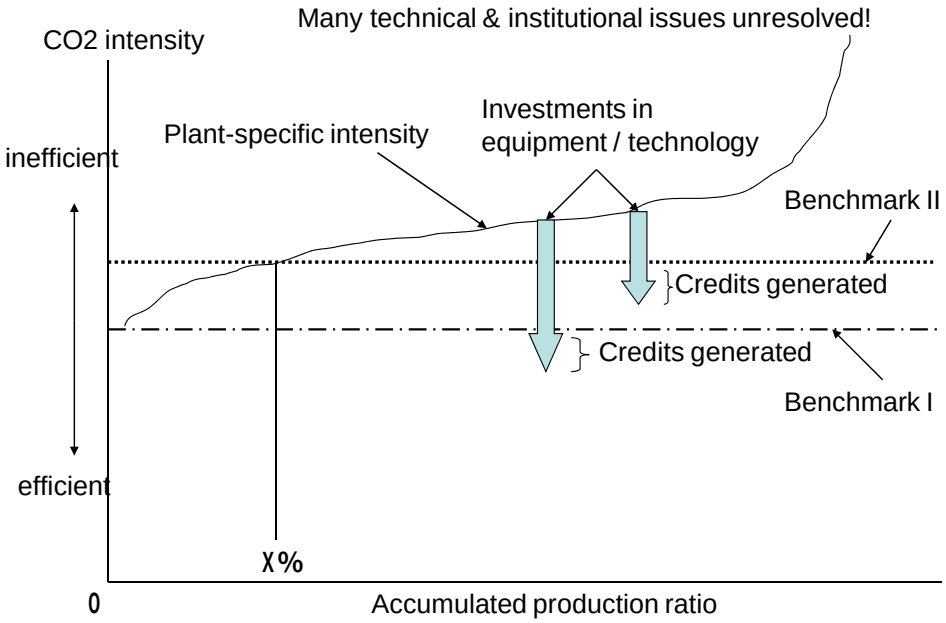
2.5.1. Sectoral Crediting Mechanism (SCM)

Regardless of the many fundamental problems that crediting entails, a diversity of ideas for generous financial support have been proposed to invite the active participation of developing countries. A leading example is known as the sectoral crediting mechanism (SCM), in which a particular sector in a major developing country commits to a given quantified target - often a no-lose target - which, if successfully achieved will entitle the developing country government to credits for amounts in excess, and even if not, will impose no penalty.

The following paragraphs will discuss some possible credit generation schemes.

One option would be to set the intensity benchmark with the technologies and production methods employed in the most efficient plant today (Benchmark I in Figure 2) and to generate credits for any intensity improvements yielded by investments in new technologies and production methods for higher efficiency. Considering regional differences in raw material and resource availability among other factors, the top-runner method, used to determine Benchmark I, may prove to be inequitable, in which case, the intensity benchmark may be set at a point where accumulated production reaches a given percentage (Baseline II), thus generating credits for efficiency improvements made above the baseline intensity as a result of capital investment. A similar scheme can be conceived for absolute targets, instead of intensity targets.

Figure 2: Examples of Sectoral Approach-Based Crediting



However, in order for these schemes to be viable, data must be collected from plants in each country and sector based on a sectoral approach to globally map out intensities as in Figure 2. Furthermore, in order for generated credits to be convertible beyond sectoral and national borders, common technical infrastructure, including a standardized CO2 measurement protocol and verification system, must be shared among different sectors and countries. While a sectoral approach may efficiently analyze sector-specific reduction potential, it would need to be more refined to function as a crediting scheme as well.

In addition to technical issues, SCM is noted to entail the following institutional problems:

1) Developing countries, which originally did not bear any obligations under the Kyoto Protocol, will be making a concession by setting targets, and are therefore likely to negotiate for targets deliberately set at easily-achieved levels. Although third party assessment could be incorporated to judge the appropriateness of target and baseline setting, the reliability of data gathered in developing countries would only further complicate the problem.

2) If the upgrading of existing facilities as well as new installments is included, administrative costs involved with the calculation and verification of credit amounts may become too large.
3) If credits are issued to the government, there will be no measures to guarantee that credit revenue has been appropriately allocated according to low-carbon technology introduction efforts. For example, if credit revenues are employed to maintain the competitiveness of companies using inefficient energy technologies or to save industries that are struggling for reasons completely irrelevant to mitigation efforts, then international competition will be distorted.
4) Even in the event that credits are issued to companies, if credits are issued not by GHG reduction project, but in accordance with the intensity improvements achieved in comparison with a sector-wide intensity target, there is no guarantee that the company will use credit revenues for the introduction of low-carbon technologies.

Apart from such institutional flaws, it has also been noted that an even more serious disadvantage of negotiating SCM is that instead of deriving agreement, it may cause a breakdown of negotiations. Being imposed obligations in exchange of issuing credits, developing countries will naturally weigh the future demand for such credits among developed countries. Under this scheme, higher future credit prices promise more revenue for developing countries, which may thus unsurprisingly demand that reduction targets be established at levels exceeding the technological potential of developed countries. Developed countries being unable to make an easy compromise, negotiations may reach an impasse.

On the other hand, if negotiations do happen to be concluded on a scheme incorporating SCM, developing countries are unlikely to readily abandon such an advantageous financing scheme. Considering the projected greenhouse gas emissions, major emitting developing countries should also make appropriate emission reduction efforts. However, it is likely to be diplomatically extremely difficult to gradually tighten the applicable requirements of a program once it has been introduced.

2.5.2. Improving Conventional Crediting Schemes

Before introducing a new crediting scheme with a number of institutional issues yet to be resolved, it is more important to make use of existing crediting

schemes with a more flexible approach. Section 4 below will elaborate a proposal regarding CDMs, in particular – if a new methodology of validating a series of projects or the concept of product CDM, otherwise known as "Demand Side Management CDM (DSM-CDM)" can be introduced to replace the conventional procedure of judging the additionality of individual projects, then an early shift to a low-carbon society not only in the industrial sector but also in the household/office sector of developing countries would be possible.

Upon addressing improvements to be made in the current CDM scheme, the benchmarking-setting methodologies presented in Figure 2 should also be considered[5].

In this proposal, based on the concept that major developing countries should assume appropriate responsibilities toward mitigation, we take the position that they should no longer be eligible to host CDM projects. However, if future negotiations call for the continuation of CDM, then CDM can be phased out after a transitional measure which would allow the mechanism to be continuously applied for a given period of time, but only to projects introducing technologies accredited (by the CDM-EB or a public-private advisory group proposed below in subsection 4) of section 3) as the BAT of the sector in which the project is implemented.

3. Organization for Financial Support and Technology Transfer

There is some controversy over the necessity of an organization to coordinate financial support and technology transfer. Establishing a new structure to manage such operations would clearly entail the risks of bureaucratizing the process and inhibiting the efficient and speedy provision of financial support and technology transfer. However, a new organization would be required for the establishment of a sectoral approach-oriented negotiation process - advocated by Japan – based on which, financial support and technology transfer will be efficiently performed and based on such an approach and data on the outcomes of the support extended, or actual emissions reductions, accumulated in a measurable, reportable and verifiable manner.

[5] The benchmarking CDM methodology developed by WBCSD/CSI is basically the same as the idea presented in Figure 2 and is currently being assessed in the CDM Meth Panel. See http://cdm.unfccc.int/methodologies/PAmethodologies/publicview.html?meth_ref=NM0302

For such purposes, we propose the establishment of a Data Center for Energy and CO2 Efficiency. The status of the new organization could be: a) a subsidiary body to the UNFCCC to give it authority; or b) a network of existing research institutes and industrial groups with high capacities and firm financial ground, receiving recognition by COP. Whichever organizational structure may be adopted, the industrial groups representing each sector possess the expertise and data collection/management capacity regarding decision-making on the scope and format of required data; measurable, reportable and verifiable methods of data assessment; and the evaluation of the appropriateness of efficiency targets. Therefore, in any new organization, these existing industrial groups must be given appropriate status and fully employed in the establishment of a new organization.

We propose that the Center be founded in Japan (or that existing Japanese research institutes or industrial groups be reorganized) and that the Japanese government assume a significant portion of staff and budget. The staff will comprise full-time researchers and administrative staff members. The Center will have branches in several regions of the world to perform the following activities:

1) Standardizing data studies /accumulation /analysis and methodologies

In order for the sectoral approach-based negotiation process of aggregating reduction targets in a bottom-up approach to gain credibility, various data and methodologies, including national marginal reduction costs, analyses of existing and future technologies, current national energy and CO2 efficiency and methodologies to determine sectoral boundaries, will be need to be standardized. At present, a variety of statistics from international specialized agencies such as IEA, universities and research institutes, industrial groups and government is being employed in the absence of common data infrastructure – the data represent analyses conducted at a given point in time, the data are not continuous and the methodologies vary among different sectors.

The new organization will continuously collect energy and environment-related data in each sector and plant to compile a database and establish a common cross-sectoral methodology. If established methodologies and data analysis already exist, then a committee of experts launched under the new organization should consider them and provide assurance, based on which the new organization will give recognition.

2) Developing standards/labeling

The new organization will provide recognition for various sector-specific protocols and tools, including those related to CO2 emissions. It will also collect technological data, develop the capacity to accredit BAT and best practices, and develop a labeling scheme in relation to the abovementioned trade expansion measures.

3) Examining national reduction targets and supporting the compilation of nationally appropriate mitigation action (NAMA) plans

The new organization will examine the intensity targets of major developing countries in particular, to be sure that they have been derived through the procedures recognized in paragraph 1) above. The new organization will assume the obligation and responsibility to provide COP with information on all occasions to assess the progress made in measures stipulated in the post-Kyoto framework or to review targets.

It will also provide developing countries with technical advice based on efficiency data or technological information upon their formulation of a national action plan, which will be mandatory for all developing countries,

4) Providing integrated financial and technology support (sectoral advisory group)

Japan has proposed the establishment of an advisory group comprising experts from both public and private sectors as a measure for technology transfer and support in relation with the sectoral approach.[6] This proposal is based on the success of the Asia Pacific Partnership on Clean Development and Climate (APP)'s method of sectoral cooperation in measure to cope with global warming. Based on experiences in the APP, the proposal emphasizes the importance of sharing information on mitigation technologies possessed by private companies across

[6] A summary of the Japanese government's proposal for a sectoral technical advisory group is given below:
"An advisory group for sectoral technology cooperation should be established in order to support mitigation actions taken by developing country Parties, by removing the barriers and promoting substantially technology transfer and diffusion. With a view to supporting the mitigation actions taken by developing country Parties, this advisory group aims 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. The result of the examination by this advisory group will be utilized to assist technology transfer under the financial mechanism. It also gives advice for promoting technology transfer and diffusion in each sector, and makes a periodic report to the COP on its activities."
See http://www.env.go.jp/council/06earth/y060-85/mat03_3.pdf (Japanese)
http://unfccc.int/resource/docs/2009/awglca5/eng/misc01.pdf (English)

nations, employing that information to identify realistic and appropriate mitigation actions and to find matching investors, and having private sector experts on technology and operational know-how provide on-site advice.

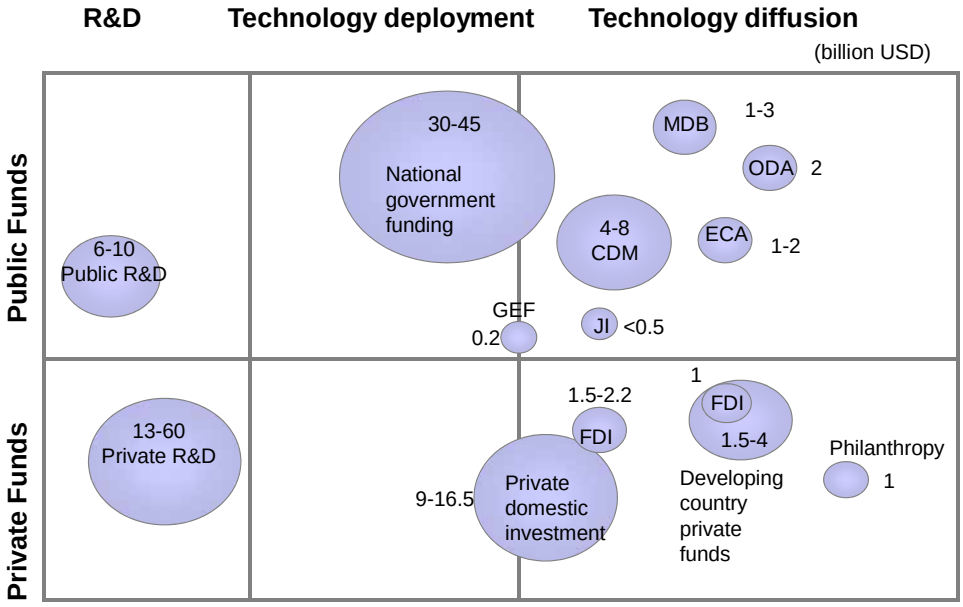
The inclusion of a cooperative sectoral approach in the Bali Action Plan has clearly indicated that the successful application of a sectoral approach depends on whether or not technologies useful in mitigation actions can be smoothly transferred to developing countries. In this context, we fully support this proposal, in which experts representing both private and public sectors are brought together to identify target technologies, to analyze appropriate measures for the diffusion and transfer of such technologies, and to examine and analyze measures to protect intellectual rights, reduction potential, cost analysis and policy know-how, making such information available to both donor or investors and recipients of support.

The advisory group should be employed not only for technical cooperation but also in financial support. If private-public sectoral experts could collaborate with investors such as financial institutions, the advisory group would provide recipient countries with inclusive information on eligible projects and the conditions of financing for every available resource, including public funds, funds stipulated in an agreement and regional development financial institutions, and would be consulted by recipients for financial support. At the same time, it would provide investors with technical advice on the selection of projects which should be prioritized and on cost estimation, thus contributing to the efficient and quick provision of support. It would also collect, organize and analyze information on the overall progress made in mitigation action-related projects, as well as the scale and effects of the financial support extended, and report periodically to COP on the efficient utilization of funds and technology and what has been achieved as a result.

4. Proposals for Improvement Measures for Current CDM Scheme

The most recent total of funds allocated globally for mitigation actions was estimated to be 70-165 billion dollars, approximately 8 billion dollars of which were used for CDM (see Figure 3). Turning our eyes to funds used in the technology diffusion stage, we can see that accounting for almost twice the amount of private investment made by developing countries as a whole, CDM is rapidly expanding. Given the increasing importance of CDM and its establishment as a source of financing, it is essential that we review the current CDM scheme so that it is more accessible.

Figure 3: Financing for Mitigation Actions (World Total)[7]



CDM = clean development mechanism, ECA = export credit agency, FDI = foreign direct investment, GEF = Global Environment Facility, JI = joint implementation, MDB = multilateral development bank, ODA = official development assistance

The current status of CDM projects is presented in Chart 1. When CDM was first introduced, many projects, such as Fluorocarbon recovery projects, aimed to "destruct greenhouse gases," promising the generation of large amounts of credits. However, renewable energy projects, including hydropower, wind power and biomass projects, have recently come to represent a large share. On the other hand, the "efficient use of fossil fuels" and other energy conservation projects, which are important emission reduction measures account for only 15 percent. One of the reasons pointed out is that energy conservation projects can only achieve relatively small emission reductions per installation of equipment or product, and thus complicate the recovery of the million-dollar administrative costs involved with CDM. Furthermore, CDM project developers have also indicated that the assessment of additionality has become more stringent, putting energy conservation projects at a disadvantage. This can be judged from the high percentage of rejected project activities against the number of projects registered.

[7] http://unfccc.int/resource/docs/2009/sb/eng/inf02.pdf

Chart 1: Outline of CDM Projects[8]

Category	Project Types	No. of registered projects		Reductions by 2012		Rejected projects	
			Percentage constituent (%)	Accumulated (thousand t-CO2e)	per project (thousand t-CO2e)	Number of Projects	Ratio to registered projects (%)
Renewable energy	Hydro Power	334	23.3	129,337	387	12	3.6
	Biomass utilization	228	15.9	77,482	340	25	11.0
	Biogas	196	13.7	49,847	254	3	1.5
	Wind power	211	14.7	107,707	510	6	2.8
	Other renewable energy	18	1.3	11,348	630	–	–
Destruction of GHGs	Methane recovery&utilization	113	7.9	171,698	1,519	1	0.9
	Methane avoidance	17	1.2	5,636	332	–	–
	N_2O reduction	39	2.7	234,026	6,001	–	–
	HFC reduction	18	1.3	461,237	25,624	–	–
	PFC reduction	2	0.1	516	258	–	–
Efficient use of fossil fuels, etc.	Waste gas/heat utilization	125	8.7	147,540	1,180	16	12.8
	Energy efficiency	60	4.2	12,038	201	16	26.7
	Transportation	2	0.1	1,963	981	–	–
	Cement	24	1.7	23,927	997	8	33.3
Fuel switch		42	2.9	87,659	2,087	4	9.5
Carbon sinks	Afforestation & reforestation	2	0.1	1,317	658	–	–
Total		1,431	100.0	1,523,277	1,064	91	6.4

Considering the current status described above, we will discuss proposals for improving the current CDM scheme.

1) Proposal 1: Expanding and promoting product CDM, and programmatic CDM

Programmatic CDM is a type of CDM launched in 2007 which involves installing the same type of equipment or product in a number of sites to enhance emissions reductions (total credits). Programmatic CDM is a promising breakthrough for energy efficiency projects and renewable energy projects that tend

[8] Compiled from IGES (Institute for Global Environmental Strategies) "IGES CDM Project Data Analysis" (updated March 6, 2009) and "IGES CDM Review and Rejected Project Data Analysis" (updated March 1, 2009)

to achieve relatively small amounts of emissions reduction per installation.

However, as of April 2009, no project activities have been formally registered as programmatic CDM and only sixteen projects are currently in the validation process by DOEs (designated operational entity)[9]. A further look into the sixteen proposed projects reveals that 200 days have passed since the proposal of ten of the projects and that 400 days have passed for five.

Considering the importance of programmatic CDM, the CDM Executive Board (EB) should encourage DOEs validating programmatic CDMs to proceed smoothly with the validation process for the early establishment of programmatic CDM.

The Japan Electrical Manufacturers' Association (JEMA) has proposed the "product CDM" methodology – also referred to as "Demand Side Management CDM (DSM-CDM)" - which seeks to disseminate energy-saving products in households and offices in developing countries. In 2006, JEMA proposed a new methodology in relation to a project to disseminate fluorescent light bulbs, but the methodology has not yet been approved due to unresolved reductions monitoring issues. A new methodology has been approved for a similar project in Ghana to retrofit conventional lighting with fluorescent light bulbs and a "product CDM" methodology has been approved for refrigerators in India, therefore raising the profile of "product CDM." However, the CDM Executive Board is required to clearly set out its intentions of expanding on this methodology for it to gain wide recognition as an established scheme.

2) Proposal 2: Introducing multi-project baselines

An idea for revising the current CDM scheme is to introduce a "multi-project baseline," which can be applied to other similar projects, is currently being discussed in the AWG-KP[10]. The introduction of this scheme will not only reduce costs related to project development but will also help avoid the situation in which, as implemented projects accumulate, similar projects later proposed are imposed with increasingly demanding requirements regarding the additionality of projects.

Multi-project baselines are baselines that are shared among similar projects where as baselines under the current system are separately determined for each individual project "Similar projects" will be identified according to economic status, social systems, availability of technologies, etc. and can be defined to be a series of

[9] data from UNEP Risoe Centre on Energy, Climate and Sustainable Development (http://cdmpipeline.org/publications/CDMpipeline.xls)
[10] http://unfccc.int/resource/docs/2009/awg7/eng/l02.pdf

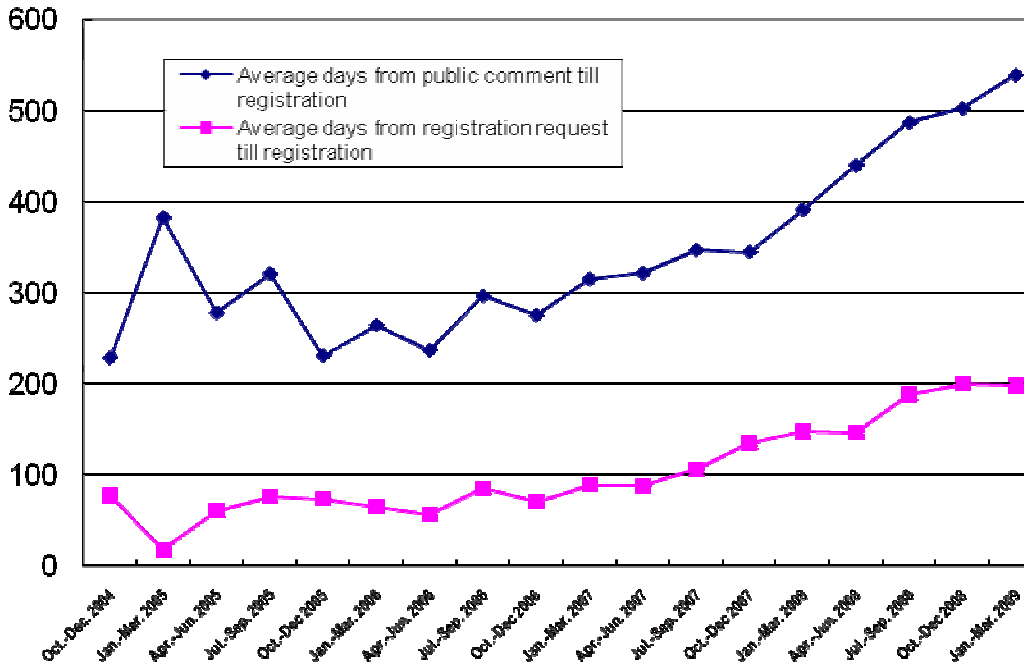
projects, such as wind power installations in province B of country A, or an entire sector, such as sector C of country A (covering all facilities within the sector).

The CDM Executive Board should clearly include “multi-project baselines” as a method for baseline setting.

3) Proposal 3: Fundamentally improving project validation/registration process

The shortcomings of the current project validation and registration process are evident in the protracted validation/registration period. The upper line in Figure 4 depicts the time required from the point that the project design document (PDD) is made open for public comments for the PDD, after the project developer’s submission of the PDD to the DOE and PDD reviews and interviews, to the actual approval of the project by the CDM Executive Committee and formal registration as a CDM project. This period can be divided into the verification period by the DOE and the appraisal/registration period by the EB; the latter is presented in the lower line in Figure 4. According to Figure 4, the time required from the public comment period to project registration has recently increased from a minimal 250 days to 550 days. This is because both the DOE validation period and EB appraisal/registration period have more than doubled. The EB appraisal/registration rules provide that a project is registered within eight weeks (56 days) unless more than three of the ten members of the EB make requests for review. Since the average appraisal/registration period has recently been approximately 200 days, it can be assumed that requests for review are being made for a considerable number of projects.

Figure 4: Average Days Required for CDM Project Registration[11]



According to interviews with companies involved in CDM project development, frequent alterations in the DOE's interpretation of methodologies also pose a problem. This may also be a contributing factor to the prolonged validation and registration processes.

The CDM Executive Board should develop a plan to shorten both the DOE validation period and EB appraisal and registration period and report periodically to the COP/MOP (Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol) on the progress made. It would be effective to establish indicators, including the number of revisions made to the interpretation of methodologies and number of requests for review made by the EB, that would play an important role in reducing the time required and to carefully monitor the improvements made. For the purpose of shortening the DOE's validation period, the EB should also evaluate the human resources of DOEs from both quantitative and qualitative aspects and develop a program for the accreditation and fostering of highly competent DOEs. Recommendations to develop improvement programs might also be needed for problematic DOEs.

[11] Compiled from Institute of Global Environmental Strategies (IGES) "IGES CDM Project Data Analysis" (updated March 1, 2009)

5. Conclusion

Many governments believe that financial and technical support of a substantially larger scale and scope should be extended to developing countries. However, under the Kyoto framework, in respect of the “common but differentiated responsibilities and respective capabilities” principle, developing countries - major developing countries, in particular - are required to act in accordance with their “capabilities,” which have developed dramatically in recent years. We wish to conclude our proposal by reiterating our basic perspective that new financial and technical support measures for developing countries must encourage their commitment to greenhouse gas reduction and the self-reliant fulfillment of commitments, and not constitute a system that will make developing countries eternally dependent on developed countries for funds and technology.

The 21st Century Public Policy Institute

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About 21PPI

The 21st Century Public Policy Institute (21PPI) is a think tank established in 1997 by Keidanren(Japan Business Federation). The 21PPI renewed its organization in April, 2007. Mr.Fujio Mitarai, Chairman of Keidanren, became the new chairman of the institute and Mr.Kenji Miyahara assumed the presidency.

Since the inauguration of the new leadership team in April, 2007, the 21PPI started research on important topics such as improvement of public-sector productivity, introduction of new system of local government by states, tax system reform, and diplomatic strategy for a Post Kyoto Framework. As an "open think tank", the 21PPI will take up key domestic and international issues and present our views and ideas.

Policy Proposals for Multinational Global Warming Negotiations (Part II)

—Developing Country Support—

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