

# US-Japan Workshop on Climate Actions and Developmental Co-benefits

## Summary<sup>1</sup>

### Introduction

The Institute for Global Environmental Strategies (IGES), the Ministry of the Environment of Japan (MOEJ) and the U.S. Environmental Protection Agency (EPA) conducted a joint workshop entitled “U.S.-Japan Workshop on Climate Actions and Developmental Co-benefits” on March 5 and 6, 2007 in Washington, D.C. The main goal of the workshop was to find a range of broadly applicable policies and actions that realize development objectives (co-benefits) and at the same time result in real climate benefits, especially in developing countries. Prominent speakers from Japan and the U.S. – representing governments, academia, non-governmental organizations and leading research institutions – along with participants from China and Mexico exchanged the latest information on co-benefits policy measures. Also discussed were ways to promote a co-benefits approach through international cooperation, and measures that strengthen US-Japan bilateral cooperation for encouraging a co-benefits approach in developing countries.

The following questions were addressed:

- What lessons can be learned from current policies in selected sectors (energy, transportation, agriculture, and waste management) that deliver positive development and climate outcomes?
- How can we promote the co-benefits approach in international context?
- What type of follow-up research and cooperative efforts are necessary in future?

### Keynote Speech: Climate and Development: How to Maximise Co-benefits?

The workshop began with a keynote speech by Jonathan Pershing of the World Resources Institute (WRI). He stressed that climate change is a real and increasingly pressing problem especially in developing countries. After explaining that climate change and development are not independent, he introduced SD-PAMs (Sustainable Development Policies and Measures) as an example of policies that address both climate change and development issues simultaneously. He proposed that in contrast to

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the current CDM projects, SD-PAMs have the potential to achieve significant greenhouse gas (GHG) emissions reductions in developing countries. However, he cautioned that not all development policies have climate benefits and that SD-PAMs cannot fully substitute for GHG mitigation policies.

### **Session 1: Co-benefits – definitions, policies, and applications**

The main focus of Session 1 was on approaches for evaluating co-benefits and how they have been used for making policy in two developing countries – China and Mexico. Myra Frazier of EPA proposed the use of best practices as a policy tool to realize co-benefits. She outlined basic criteria and measurement for best practices, and discussed how this approach can be effectively utilized.

Mark Heil of EPA discussed issues in quantifying co-benefits. After presenting an overview of how cost-benefit analysis was used in the US regulatory framework, he illustrated that co-benefits analysis substantially changed the results of cost-benefit analysis of EPA's past projects. He also pointed out that cost-benefit analysis has limitations in quantifying all co-benefits and co-costs.

Hu Tao of the Policy Research Centre of SEPA, China, made a presentation on lessons learned from China's experience on addressing local pollution. He pointed out that there are several barriers for promoting co-benefits in developing countries including inadequate availability of policy instruments, lack of coordination between central and local governments, and lack of social infrastructure to access necessary information.

Julia Martinez of National Institute of Ecology, Mexico, presented case studies focusing on transportation and air quality issues. She suggested that there are measures that will substantially reduce emissions of local air pollutants as well as GHG and that the estimated benefits of these policies far outweigh the estimated costs. She also discussed that political resistance from those affected is an important factor that must be taken into account when implementing policies.

### **Session 2: Expanding the Co-benefits Approach: Where to Capitalize? Where are the Opportunities?**

Session 2 examined approaches for promoting developmental co-benefits in selected sectors including transportation, agriculture and waste management, and identified synergies and trade-offs with climate objectives. Wei-Shiuen Ng of WRI presented challenges in realizing co-benefits in the transportation sector. She pointed out the importance of good governance structure in implementing sustainable

transportation policies. She also highlighted the need for good policy planning by explaining that technology development alone cannot lead to GHG emission reductions, and suggested that an optimal combination of fuel demand management, fuel economy and emissions standards, and traffic demand management should be explored. She also indicated that successful policy planning and implementation require broad appreciation of the problem, analytical capabilities, and better observations and evaluations.

Richard Conant from Colorado State University presented environmental, economic and social co-benefits of GHG mitigation in the agricultural sector. He illustrated how agro-ecosystem research has evolved from targeting agricultural and conservation policy makers to include climate policy makers. In addition, he argued that use of agricultural lands for production of biofuels would have significant implications for co-benefits.

Martin Medina of IGES presented co-benefits in the waste management sector. He explained that the fact that waste composition in developing countries is high in organic content creates both problems and opportunities. As for opportunities, he explained that recycling and composting provide employment opportunities and important sources of income for low-income households in Asian developing countries while reducing methane generation from organic waste in dumps and landfills. He concluded that low-tech, low-cost, and labor-intensive systems would render social, economic, and environmental benefits.

### **Session 3: Promoting Co-benefits in the International Context**

Session 3, which comprised four presentations, discussed how the current global climate regime and international financial mechanisms may be strengthened in the future to promote co-benefits. It also included presentations on how unilateral mitigation efforts of developing countries could be supported in a future international climate regime, and how developing countries could enhance co-benefits through various sustainable development policies and measures.

Kentaro Tamura, IGES, highlighted that developing countries should be actively involved in GHG mitigation efforts because of their increasing GHG emissions. He underscored, however, that climate actions should be consistent with their development needs. He explained that developmental aspirations of developing countries per se were not the focus of climate negotiations to date, although one of the twin goals of CDM under the Kyoto Protocol is to enhance sustainable development in developing countries. Tamura explained that different CDM projects produce different levels of “development dividends” and stressed that most CDM projects with high emission reduction potential

have low development dividends. Based on this, he suggested that a future international climate regime should create additional measures to promote developmental co-benefits through effective restructuring of market mechanisms. Some workshop participants suggested that application of a CDM “Gold standard” or enlarging the scope of CDM to include policy-based or programme-level CDM might have beneficial impacts in promoting co-benefits of CDM.

David Todd of GEF’s Evaluation Office, summarised the findings of a post-assessment study of local benefits achieved through implementation of 30 climate mitigation projects with a total value of US\$566 million. He cautioned that a clear analysis of imaginary and real co-benefits is necessary, as many projects which attempted to promote local benefits in design often failed to realize actual local benefits. He cautioned that a good technology alone is not enough to promote acceptance and that sound social and economic understanding of intended beneficiaries is crucial to promote co-benefits in an international context. He identified that monitoring and evaluation of local benefits to date was far too weak, and attribution of benefits to projects was often too generous. Some workshop participants responded that win-win examples such as energy efficiency projects would have several co-benefits and that the international financial mechanisms should promote such projects.

Jake Schmidt of CCAP summarised the findings of a study of unilateral mitigation actions by large developing countries such as China, Brazil, and India, and stressed that those countries undertook such mitigation efforts despite their positive economic cost, mainly with other developmental priorities (such as energy security, reliability of power network, improved air and water quality, and enhanced economic productivity and competitiveness) in mind. He mentioned that a future international climate regime should recognize and promote climate actions with high developmental co-benefits. He also stressed the need for creation of an effective framework that provides strong incentives to developing countries for more expensive emission reduction opportunities. Some participants pointed out that the current climate regime does not promote or support such voluntary initiatives.

Rob Bradley and Britt Childs of WRI noted that SD-PAMs can be a form of commitment by developing countries to implement a policy or measure solely driven by host country development needs rather than reduction of GHG emissions and that they can offer a wide range of co-benefits. They stressed that it is important to include SD-PAMs in an international agreement as it allows for recognition of co-benefits, learning, integration and support. They showed that one of the options to rural electrification in India was to focus on renewable sources of energy but dependence on

renewable sources involves significant capital cost. If international policy or a future international climate regime can help those efforts, the potential co-benefits would be enormous. They identified that biofuels policy is an SD-PAM already implemented in Brazil, as the country was able to avoid US\$100 billion in external debt. They cautioned that co-benefits are not always guaranteed and that successful international cooperation is crucial to secure the possible co-benefits. Some participants pointed out that expansion of current CDM through inclusion of sectoral CDM could promote co-benefits, and might provide more incentives than SD-PAMs.

#### **Session 4: Strengthening Cooperation between the U.S. and Japan on Co-benefits Promotion in Developing Countries.**

Session 4 included a presentation showing the importance of developing a new framework beyond the current Kyoto-style regime. The latter two presentations discussed how EPA and MOEJ can cooperate with each other in promoting the co-benefits approach in developing countries. The final presentation showed how co-benefits approach is attracting considerable attention in recent policy forums and workshops such as Asia-Pacific Seminar on Climate Change.

Thomas Heller of Stanford University highlighted that it is important to go beyond the current Kyoto-style regime, if we were to achieve desired progress in GHG stabilization. He expressed concern that current price signal for carbon, which is around US\$20 or 17 Euro, is not strong enough to give a boost to changes in industrial structures or to bring about rapid uptake of low carbon technologies such as carbon capture and storage. He suggested that a price higher than 25 Euro is desirable. He stressed that energy efficiency improvement to reduce coal demand must be seen as a short-term objective, fuel switch technologies for the medium term and additional technological innovation (e.g., clean coal technologies) for the long term. He also expressed concern that due to a weak regulatory structure, CDM is not functioning as effectively as it should.

Katherine Sibold of EPA noted that the main objective of the Integrated Environmental Strategies (IES) program is to assist developing country policy makers in assessing and promoting co-benefits especially in terms of health-related benefits due to air quality improvement. She stressed that future collaboration with MOEJ would aim to assist selected developing countries that have climate interests, and to identify additional co-benefit opportunities in other sectors. She asked representatives from developing countries to clearly identify what they expect from the US-Japan cooperation in the field of co-benefits. She highlighted that any cooperative program

should clearly identify the near to medium term opportunities including the added value provided by the program. She suggested formation of a working group to develop a work plan that would define methodologies to quantify co-benefits in various sectors, best practices portfolio to promote co-benefits, etc. She proposed that a tentative two-year work plan would initiate work from 1 July 2007 with mid-term progress reports made available to the public by November 2007, and a final report in 2008.

Kotaro Kawamata of MOEJ stressed the importance of promoting a co-benefits approach as a way to facilitate more effective action by developing countries. He suggested that the selected sectors should be based on developing countries' needs and comparative strengths of participating organizations. He suggested that MOEJ has high interest in co-benefits in the energy and transportation sectors. He also indicated that co-benefits are often not recognized due to lack of awareness, and suggested that workshops and training seminars should be conducted to raise awareness of the issue among policy makers. He opined that both CDM and ODA projects offer considerable possibilities for demonstrating co-benefits.

Makoto Kato of OECC explained how a co-benefits approach is receiving increasing attention by mid-level policy makers and government officials of the Asia-Pacific region. He reported that the Asia-Pacific Seminar on Climate Change has been discussing the issue of co-benefits for the past 4 years. He indicated that co-benefits could effectively translate development goals of developing countries into climate-friendly actions and might strengthen the voice of usually weak environment ministries of the region. He felt that currently it is easy to demonstrate pollution abatement co-benefits and energy-related co-benefits but it is somewhat difficult to demonstrate other socio-economic benefits such as positive consequences of rural electrification or reduced municipal solid waste, etc. He highlighted the need for identifying situations where co-benefits approach is promising.

### **Panel Discussion: Next Steps, including Potential Joint Activities**

The panel discussion, moderated by Hironori Hamanaka (IGES) and Susan Wickwire (EPA), addressed potential joint activities and research needs with particular reference to the desirable outcomes of US-Japan collaboration on co-benefits and ways to achieve such outcomes. Five panel members, including Katherine Sibold (EPA), Rob Bradley (WRI), Kotaro Kawamata (MOEJ), Jake Schmidt (CCAP), and Ancha Srinivasan (IGES), offered various suggestions to promote co-benefits in developing countries through effective US-Japan collaboration. Many panelists suggested that it is vital to involve the private sector as well as regional and local governments in

discussions on policies to promote co-benefits in developing countries. Some members highlighted the need to engage government agencies that have stronger political power (e.g., Ministry of Finance, Trade, etc.) in order to implement policies to promote co-benefits, as agencies that deal with environmental issues generally have weak political power in most of the countries. Since the lack of awareness of co-benefits is still a major barrier in many developing countries, it was suggested that the future cooperation should focus on strengthening of human and institutional capacities to identify and maximize co-benefits. In such efforts, interests and needs of policymakers in developing countries should be adequately reflected to make the co-benefits approach attractive to them. One of the suggested options was to adopt the best practice approach to identify replicable cases and promote information exchange. The need for expansion of analysis of co-costs and co-benefits to areas besides health improvement was also emphasized. In terms of bilateral cooperation in the near future, panel members advised prioritizing and narrowing down the scope in terms of what can be accomplished in a limited time.

### **Concluding remarks**

In this workshop, ways to promote a co-benefits approach in developing countries through international cooperation in selected sectors were discussed in depth. The workshop also scoped out options for future collaboration between the EPA and MOEJ to promote a co-benefits approach in developing countries. The discussions at the workshop provided a basis for initiating a joint work plan through establishing a group of U.S. and Japanese experts with a mandate to recommend approaches for quantifying and promoting co-benefits in selected sectors. All in all, the workshop provided useful inputs to promoting sustainable development while simultaneously addressing climate change at both national and international levels.