## Regional Workshop on Opportunities and Priorities for Low Carbon Green Growth in Asia

15-18 September 2009, Asian Institute of Technology, Bangkok, Thailand

#### **Background & Objectives:**

Protecting the environment is an economic imperative and the case for immediate action is particularly strong in the Asia and the Pacific. The environmental carrying capacity as measured by ecological foot print exceeds the available bioproductive areas per capita in most Asian countries. As a consequence of rapid and carbon intensive growth, the region is fast becoming a major source of green house gas (GHG) emissions. Low Carbon Green Growth could be a regional strategy for Asia to advocate a new developmental paradigm wherein economic activity continues to expand while emissions are reduced, environmental quality is restored and new employment opportunities are generated on a large scale.

What does low carbon green growth actually mean to Asia? a region heavily dependent on imported energy and resources. Tapping the potentials of energy efficiency not only can achieve a meaningful and effective near term goal of reducing carbon emissions but also increases energy security at the national level and bring business profits at firm levels. Renewable energy generates more job than employment in fossil fuels. Technological innovation prevents or reduces emissions/pollutions. International cooperation efforts and innovative funding mechanisms help diffusion of green technologies. Emerging economies also innovate rather than being just recipients of new technologies.

While the planning for green economies drew noteworthy lessons in some parts of Asia, it is clear that concerted actions and investments are needed to simultaneously deal with both the environmental and economic challenges, that also on a priority basis. This workshop is designed to stimulate regional level discussion on opportunities available with low carbon green growth and improve capacity to identify relevant policies, programs and projects for putting them into practice.

The specific objectives of the workshop are:

- (i) To understand the risks associated with climate change and the opportunities related to low carbon green growth.
- (ii) To exchange innovative policy experiences that provides low carbon energy services in a more efficient way.
- (iii) To identify success factors in low carbon international technology transfer schemes and the main difficulties in eco-innovation faced at national level.
- (iv) To showcase promising financial mechanisms that could accelerate Asia's shift towards low carbon green growth.

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Date & Time	Agenda	Speakers	
Tuesday, 15	Tuesday, 15 September 2009		
08:30 - 09:00	Registration		
09:00 – 09:20	Opening Remarks and Welcome Statements Soo-Nam Oh, Asian Development Bank Prof. Sudip K. Rakshit, Vice President - Research, Asian Institute of Technology		
Session I:	Concepts of Low Carbon Green Growth, Challenges and Current Status in the Asia Pacific Region Chair: Sivanappan Kumar, Asian Institute of Technology		
The share of global carbon emissions from the Asia-Pacific is rising rapidly – making it main driver of global climate changes. Climate change and environmental impacts threaten considerable social and economic progress achieved in recent years. Decoupling economic growth from further increase in green house gas emissions need to be a new developmental program for Asia. This session will introduce the basic concepts of and identify specific approaches to achieve low carbon green growth in Asia.			
09:20 – 09:45	Low Carbon Green Growth: Overview and Scope of the Workshop	V. Anbumozhi, <i>Asian</i> Development Bank Institute (ADBI)	
09:45 – 10:15	Economics of Climate Change and Regional Challenges	Stefanos Fotiou, <i>United</i> Nations Environment Program (UNEP)	
10:15 – 10:30	Coffee Break		
10:30 – 11:00	Confronting Climate Change and Green Growth: Pathways for Low Carbon Societies in Asia	Ryokichi Hirano Environmental Partnership Council (EPC), Japan	
11:00 – 11:30	Priorities for Low Carbon Green Growth and Current Status in the Region	Sangmin Nam, United Nations Economic and Social Commission for the Asia- Pacific (UNESCAP)	
11:30 – 12:00	Towards Low Carbon Green Growth in Asia: ADB's New Energy Policy	Jong Inn Kim, Asian Development Bank (ADB)	
12:00 – 12:30	Open Discussion		
12:30 – 13:30	Photo Session & Lunch Break		
Session II:	Session II: Inside the Low Carbon Green Growth: Innovations in Green Energy Supply Chair: Krishnamurthy Ramanathan, Asian and Pacific Centre for Transfer of Technology (APCTT)		

For Green House Gas (GHG) emissions to be reduced in drastic way, Asia has to significantly reduce fossil fuel use. Countries and regions around Asia are reducing their carbon foot print by accelerating investments in renewable energy supply. For example, some authorities have mandated the purchase of renewable energy at a fairly high tariff which will give renewable energy projects higher-than-market returns. This session will address innovations in such planning tools that accelerated the uptake of green energy.

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13:30 – 13:55	Regulators Role in Promoting Renewable Portfolio Standards (RPS)	Sivanappan Kumar, <i>Asian</i> <i>Institute of Technology (AIT)</i>
13:55 – 14:30	Connecting Renewables to Green Grid: Case of Bio-energy Supply	Natee Sithiprasasana, A.T. Biopower, Thailand
14:30 – 14:55	New Networks for On and Off Shore Wind Power Supply	Pinij Siripuekpong, Electricity Generating Authority of Thailand (EGAT), Thailand
14:55 – 13:20	Open Discussion	
13:20 – 15:30	Coffee Break	
15:30 – 16:00	Streamlined Planning for Decentralized Power Systems: Case of Micro Hydros	Kiran Man Singh, <i>Rural</i> Energy Development Programme (REDP), Nepal
16:00 – 16:30	Maximizing the Co-benefits of Renewable in Low Carbon Zones	Vimut Prasertpunt, <i>Mahidol</i> <i>University, Thailand</i>
16:30 – 17:00	Country Paper Presentation: Low Carbon Green Growth Strategies in Korea	Jaekyu Lim, Korea Energy Economics Institute (KEEI), Korea
17:00 – 17:30	Open Discussion	
18:00 –	Reception	

#### Wednesday, 16 September 2009

Session III: Demand Side Energy Efficiency Solutions: A Low Hanging Fruit for Low Carbon Green Growth

Chair: Sangmin Nam: ESCAP

Demand side energy management is a good example of a no-regret strategy for a low carbon economy. Improving energy efficiency implies using less energy to achieve the same amount of production and services. This session provides insight into energy efficiency approaches that can help to achieve near term goal of reducing GHG emissions while adding to bottom line profits.

09:00 – 09:25	Energy Efficiency Solutions for Low Carbon Green Growth	V.Anbumozhi, <i>Asian</i> Development Bank Institute (ADBI)
09:25 – 09:50	Strategies to Overcome Barriers to the Adoption of Clean Technologies in Industry	Brahmanand Mohanty, Asian Institute of Technology (AIT)
09:50 - 10:25	Open Discussion	
10:25 – 10:45	Adapting Environmental Management	Akira Ogihara, Institute for

	Systems and Standards for Energy Efficiency Improvement	Global Environmental Strategies (IGES)
10:45 – 11:15	Sustainable Energy Financing: Overcoming the First-Cost Barrier to Energy Demand Management	Brahmanand Mohanty, Asian Institute of Technology (AIT)
11:15 – 11:45	Carbon Labeling Programs and Co-benefits of Eco-Efficiency Improvement	Punjaporn Weschayanwiwat, Thailand Environment Institute (TEI)
11:45 – 12:15	Open Discussion	
12:15 – 14:00	Lunch Break	
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### Session IV: Managing the Technology for Low Carbon Green Growth Chair: Stefanos Fotiou, United Nations Environment Programme

Wider use of innovative technologies to adapt to and prevent climate change can form an important part of low carbon green growth strategy. Although technology transfer occurs at different levels, appropriation, creating correct market conditions and enabling policies are needed to flourish low carbon technology transfer. This session will provide insights into how the enhanced transfer of low carbon technologies is being achieved during the transition towards low carbon green economies.

14:00 – 14:30	Technology Needs Assessment in the Context of Low Carbon Green Growth	Krishnamurthy Ramanathan, Asian and Pacific Centre for Transfer of Technology (APCTT)
14:30 – 15:00	Enabling Conditions for Technology Acquisitions and Absorption: Case of Clean coal technologies	Hoang-Luong Pham, <i>Hanoi</i> <i>University of Technology,</i> <i>Viet Nam</i>
15:00 – 15:15	Coffee Break	
15:15 – 15:45	National Innovation Systems for Promoting Green Technology Transfer	Krishnamurthy Ramanathan, Asian and Pacific Centre for Transfer of Technology (APCTT)
15:45 – 16:15	Public–Private Partnerships in International Technology Transfer	Shinya Okuda, <i>Kansai</i> Economic Federation (Kankeiren)
16:15 – 17:00	Country Paper Presentations: Low Carbon Green Growth Strategies in Central Asia	Irina Goryunova, Regional Environmental Centre for Central Asia (CAREC)
17:00 – 17:30	Open Discussion	
17:30 – 17:45	Logistics for the field visit	

#### Thursday, 17 September 2009

#### Session V: Field Visits

In Thailand, high importance is attached to enterprise competitiveness and energy efficiency. Many public sector programs are also targeted to improve renewable energy portfolio of energy service providers. Field visits and on-site discussions will be arranged to understand

the key success factors of such approaches.		
09:00 – 12:00	AM: Field Visit to Energy Efficiency Improvement Project	Siam City Cement
12:00 – 13:00	Lunch Break	
13:00 – 16:00	PM: Field Visit to Energy project where RPS is in Practice	Biogas plant

#### Friday, 18 September 2009

## Session VI: Resources Mobilization for Low Carbon Green Growth Chair; Anthony Michael Zoala, Club Mekong Co.Ltd

Perhaps the most common obstacle to the technology transfer is the lack of funding. Because renewable energy and energy efficiency improvements offers cost benefits in the long term rather than the short term, low carbon approaches are often bypassed in favor of more carbon intensive programs. In response to this situation, a creative suit of financial arrangements and tools are designed to generate capital for low carbon investment. This session exemplifies such programs, partnerships and international practices.

08:30 - 09:00	Tapping the Potentials of Carbon Markets	Yasuo Tanaka, Japan Bank for International Cooperation Agency (JBIC)
09:00 - 09:30	Micro-Credit Programs for Low Carbon Societies: Now and the Future	Dipal Barua, <i>Grameen</i> Shakti, Bangladesh
09:30 – 09:45	Bilateral Technical Cooperation Programs for Low Carbon Green Growth	Togo Uchida, Japan International Cooperation Agency (JICA)
09:45 - 10:00	Coffee Break	
10:00 – 10:30	Development Assistance for Low Carbon Asia	Isabelle Vincent, <i>French</i> <i>Development Agency (AFD)</i>
	Land Carlot Control Tarrage Office of	
10:30 – 11:00	Implication of Carbon Tax on Climate Friendly Technologies and Financial Resources	Ram Shreshtha, <i>Asian</i> Institute of Technology (AIT)
10:30 – 11:00 11:00 – 11:15	Friendly Technologies and Financial	•

#### Session VII: Group Discussions

Despite widespread experimentation and rhetorical endorsement, the actual implementation of Low Carbon Green Growth pathways such as renewable energy supply and energy efficiency improvements are confined to few pioneering actions. These initiatives have also not been immune from the effects of economic crisis: a tight credit market has limited the range of climate friendly investments that governments can realistically pursue. At a moment when momentum has been building for Global Green New Deal (GGND), it is unclear how Asia-Pacific can engage more actively. The group discussions will aim to respond to this call by exploring practical tools countries can use to catalyze their economies. Those policy tools have concrete objectives: generation of green jobs, national policies for energy conservation, promulgating energy efficiency standards, enhanced financing for eco-solutions, and more climate friendly operation of transport & agriculture sectors. Throughout the discussion, attention will be given to identify barriers to collaborative framework and identify strategies that foster inter-sectoral cooperation within the countries and those that generate synergies between regional and international actions.

B	reak out Group Discussions	
	roup 1: What steps could be taken to strengthen the knowledge base on Low Carbon Green Growth?	Facilitators: AIT et al
G 11:15 – 12:30	roup 2: What are the critical issues for the developing countries in relation to low carbon technology transfer?	Facilitators: APCTT et al
G	roup 3: How the role of markets could be enhanced to support the transition towards Low Carbon Green Growth?	Facilitators: ESCAP et al
12:30 – 13:30 Lu	unch Break	
13:30 – 14:30 B	reakout Group Discussions (Contd)	
14:30 – 15:15 G	roup Presentations	
15:15 – 15:30 O	pen Discussion	
15:30 – 16:00 <i>C</i>	Coffee Break	
Session VIII: Wra	ap-Up Panel Discussion	
	<ul> <li>esigning the Asian Landscape for Low arbon Green Growth?</li> <li>What are the challenges in valuing and underwriting Low Carbon Green Growth paradigm shift?</li> <li>How could threats of global financial crisis be transformed into opportunities for accelerating investment in green energy?</li> <li>How can the private sector turn energy efficiency into a marketing principle for greening their products and services?</li> <li>Why is fostering regional cooperation vital for Low Carbon Green Growth?</li> </ul>	
16:55 – 17:00 C	losing Remarks	