



MARCH 2009

# Climate Game Change

– innovations and solutions for climate change adaptation

# Introduction

The conference “Climate Game Change – innovations and solutions for climate change adaptation” was held on 22 January 2009 in Bangkok, Thailand, organized jointly by the Swedish International Development Cooperation Agency (Sida) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) as part of their respective series of meetings under Sida Development Area and Asia-Pacific Business Forum. It was attended by around 300 participants from business, governments, international organizations, civil society and academics.

Speakers included Ms. Angela Cropper, Deputy Executive Director of the United Nations Environment Programme (UNEP); Mr. Lars-Erik Liljelund, Special Adviser on Climate Change to the Prime Minister of Sweden; Dr. Anders Nordström, Director General, Sida; Dr. Noeleen Heyzer, Under-Secretary of the United Nations and Executive Secretary, ESCAP; Mr. Rae Kwon Chung, Climate Change Ambassador, Republic of Korea; Ms. Teresa Au, Head of Corporate Sustainability, Asia Pacific Region, The Hong Kong and Shanghai Banking Corporation Limited (HSBC); Mr. Rohan Parikh, Head – Green initiatives, Infosys Technologies Ltd., India; Mr. Ravi Fernando, Director Corporate Branding and Strategic CSR, MAS Holdings, Sri Lanka; Mr. Michael Bjärhov, Director of Government & Industry Relations, Asia Pacific, Ericsson, Malaysia and many others.

The aim of the Forum was to showcase how progressive Asian businesses deal with climate change related risks and opportunities and outline recommendations on how to scale up private sector efforts in Asia as regards climate change, what related mechanisms are needed to be put in place by governments, and how development organizations can support these efforts.

The following is a summary of the major recommendations that emerged from the Forum. These will be used as input for the United Nations Climate Change Conference in Copenhagen in 2009 as well as in Sida’s and ESCAP’s future work respectively.

This Report will also be made available to the Ministers participating in the 65th Session of the ESCAP Commission on behalf of public and private sector participants in the meeting.

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# Table of Contents

Introduction.....	1
Table of Contents .....	3
Executive Panel 1: Pioneers of the New Market.....	5
Executive Panel 2: Business Opportunities for Climate Action .....	6
Breakout A: Creating cities for the future.....	7
Breakout B: Ensuring food security .....	9
Breakout C: Managing risks from climate change and disaster .....	11
Impact .....	13
Media.....	13
Delegates' opinion of Climate Game Change.....	13

# Executive Panel 1: Pioneers of the New Market

*New innovative market mechanisms are emerging as the finance sector and governments are mobilizing to meet the climate challenge. Is this the beginning of a new paradigm? How can investor communities provide incentives for companies to reduce their carbon footprint? How can we increase financing for clean growth and adaptation in the region? How can we ensure a market-based climate change regime?*

## Key issues and recommendations

- Public financing cannot meet the immense size of demand for mitigation and adaptation action. Innovative financing modalities need to be identified to meet the growing financing needs of the region. Thus, it is necessary for investors to come up with common positions on climate action, and provide better opportunities for the business sector to dialogue with the policy community.
- It is already possible to save money by saving the environment. Many companies have tangible examples of the economics of investing in environmental action such as reduction of energy and resource uses.
- However, the private sector is not yet fully aware of the risks that climate change poses and the opportunities offered by early adaptation. The estimated costs of action and inaction present a clear message. It also points to great market potentials for environmentally friendly products and services.
- Attaining substantial reductions in greenhouse gases emission need not only strong sense of moral responsibility and political sensitivity, but also economic instruments for pricing carbon and creating well-functioning carbon markets. Thus, discussions on climate change need to shift from the topic of “should” to “how” to create virtuous cycle of actions among all stakeholders.
- Financial institutions have a significant role in moving the business sector and society towards a green economy. In order to avoid collective action problems such as “free riders” or “the tragedy of commons”, it is necessary to create large groups of investors to share resources for jointly address mitigation and adaptation actions and to create a backup system by the public sector. Also it is important to build capacity of financial institutions in environmental management and risk management in the context of climate change.
- Green consumers have important roles in demanding that corporations move towards a low-carbon economy.

# Executive Panel 2: Business Opportunities for Climate Action

*New, innovative green businesses are an important part in the solution to survive climate change. Asian companies are already looking at climate related challenges with new eyes. What are major companies in the region doing to address climate change? Does climate change bring new business opportunities? What are the major risks? Where should the public and private interface be?*

## Key issues and recommendations

- The incentive structure of the private sector is not sufficiently conducive to long-term strategies such as sustainability; however, without strategies for sustainability companies may not survive a changing climate. Investments in fostering a sustainability mindset pay off.
- The finance sector is a major engine of change and the impact of this sector is enormous in shifting the business sector's practices. But the business sector still lacks knowledge of how to assess risks, which is slowing down change.
- Investments in greening the business have often shown to pay off within a few years. However, companies who have not yet started adapting to the climate changes seem to overestimate the difficulties and costs involved.
- New technology, especially ICT, provides a great potential for increase in business efficiency as a route to adaptation and mitigation as well as measurement, verification and reporting.
- Partnerships between businesses, civil society and the public sector seem to combine the best of all worlds. The lack of communication and inclusiveness between public and private sectors need to be addressed. In particular, we need to build real partnerships and move the issue from responsibility to accountability. In this regard, we have seen a significant increase of Asian companies in the Carbon Disclosure Project.
- Sustainability is not a matter of choice any longer. A climate change business model will be a key to corporations' action on climate change. However, we do not yet have enough policy models for helping the business sector to shift. Furthermore, in the new climate, shareholder value will often be the same as stakeholder value.
- The public sector should develop frameworks, tools and targets for the environmental and social performance of companies in addition to the economic reporting.

# Breakout A: Creating cities for the future

*Cities account for 75% of all energy use and 80% of all greenhouse gases emissions. Most Asian cities are situated along rivers or sea shores and are vulnerable to extreme climate events. Making cities cleaner, more energy efficient and resilient to climate change will be key to future growth and development. How can the public and private sectors work together for cleaner cities? How can water scarcity be addressed? What kind of mechanisms will need to be put in place? How can carbon financing be used?*

## Key issues and recommendations

- The Asia-Pacific region is rapidly urbanizing. The challenge is how to provide for the needs of the growing urban populations while both minimizing the impact of climate change on cities and preparing cities for the adverse impacts of climate change.
- To mitigate climate change, developing countries should focus their investments in mass transit and charge more realistic environmental costs on the use of individual vehicles. Bus Rapid Transit and Compressed Natural Gas buses were cited as good practices.
- Water shortage is a key issue. Cities are increasingly facing cycles of floods in rainy seasons and droughts in dry seasons. Key mitigation and adaptation strategies include rainwater harvesting, grey water reuse and water recycling. Some good practices cited in this context were the local regulations in Bangalore and Tamil Nadu, India that exempted households that installed rainwater harvesting systems from property taxes. Massive rainwater urban harvesting programmes in the Republic of Korea were also mentioned.
- Solid waste management is another key area where cities and towns could take actions that would contribute to both mitigation and adaptation. Recycling of inorganic materials and composting of organic material not only provides jobs but also contributes to greenhouse gas reductions and green agricultural production. This area readily lends itself to public-private partnerships and to CDM financing.
- Innovations in technologies, approaches, governance mechanisms, including regulatory mechanisms and in financing are needed. To be effective, the CDM mechanism needs to be made more flexible, and solutions need to be holistic and systemic rather than incremental. Asian cities need to find new models for development and cannot afford to follow the paradigm of “grow first and clean up later”. Innovative technologies, models and approaches needed to be documented and shared to show the way forward.

- There is a discrepancy between the high level climate change discussions for a post Kyoto regime and the actual challenges faced at the local level. Awareness raising and capacity building of policy makers at the local level are urgently needed to implement mitigation and adaptation measures. Climate change need to be linked to day-to-day problems at the local level to make it more relevant to local policy makers.

# Breakout B: Ensuring food security

*Over the last century, technological advances have enabled dramatic increases in crop yields. This trend is now at risk of being reversed, as climate change may significantly affect food supply and food security, particularly in developing countries. Improved water management and innovations for more efficient agriculture will be needed to ensure adequate and sustainable food production. What are the present trends in Asia? What are the major challenges that need to be addressed? How can the public and private sectors work together to ensure sustainable food production and food security for all?*

## Key issues and recommendations

- Global warming will impact food security in many ways, including through changes in crop yields, soil fertility, and availability of land, water and biodiversity. Impacts will be unevenly distributed, with the poor being disproportionately affected.
- Even if climate change was not happening, food production would still have to be doubled while increased sustainability needs to be ensured.
- Public policy need to take into account that there is a limit on what adaptation can achieve, and stabilization of CO<sub>2</sub> concentrations is needed to ensure food security.
- Agriculture is a prominent source of greenhouse gas emissions, and thus also presents opportunities for emission reductions. Local carbon taxes could go a long way towards e.g. reducing the use of fertilizers to more sustainable levels.
- By combining climate models with water resources models and population predictions, research has shown that there is enough fresh water to produce food for all until 2030, but not until 2050.
- Enhancing the water use efficiency of existing irrigation systems, in addition to expanding irrigation systems and investing in rainwater harvesting systems are important actions. Trans-boundary river management is also a key issue that needs to be dealt with.
- Water productivity for grains is relatively stable. However, the problem as it relates to climate change is different sensitivities of crops to water variability.
- The expected future limitation of fresh water also raises the question about the demand-side, as it is five times more water consuming to produce meat as to produce cereals.

- For adaptation, there is a need to look at social protection schemes that help build climate proof environmental infrastructures like seasonal stream, water catchment, pump and irrigation systems.
- The majority of rice exports come from a small number of countries, but there is a large number of countries importing rice. If climate change negatively affects the rice-exporters, the impact on rice prices in importing countries will be big.
- There has been a reduction in agricultural research that needs to be reversed. For this, new sources of financing need to be identified.

# Breakout C: Managing risks from climate change and disaster

*Climate change is expected to increase the severity and frequency of weather-related natural hazards such as storms, high rainfalls, floods, droughts and heat-waves. Degradation of ecosystems further increases vulnerability. The threats posed to companies and the wider society by climate change will necessitate a new thinking as regards risk management. What are the commercial risks that need to be addressed, and what options are employed by the private sector? How has the insurance sector started addressing climate change? What can companies do to help mitigate the effects of disaster? What do governments need to do?*

## Key issues and recommendations

- Climate change has caused an increasing intensity of disasters, coupled with increasing frequency of small scale disasters. While asset losses from major disasters are huge, as a whole total asset losses are probably bigger from small scale disasters.
- Business involvement in the climate change and disaster related issues is necessary, both through CSR as well as the development of disaster prevention related business niches (e.g., disaster information systems through mobile phones).
- The capacity of risk assessment on weather related disasters is still weak. Data collection, information sharing, forecasting methods should be further improved so as to ensure adequate information for the development of insurance/reinsurance products.
- Insurance products exist for middle- and high income countries. However, there is a mismatch between the formal insurance system and the poor, who have very little access to insurance.
- Governments and business need to work together to develop comprehensive insurance and reinsurance systems, at the national, regional and global levels, to effectively deal with climate change disasters/hazards. In so doing, various key factors such as data collection and sharing, forecasting methods, affordability and the role of public sector need to be considered.
- Governments should increase the awareness of the private sector as regards the need for disaster risk reduction (DRR). They could also provide effective incentives, such as grants, tax benefits, reinsurance guarantee and allowances, to promote public-private partnerships (PPP), including the establishment of a PPP coordination mechanism, and the dissemination of good PPP practices,.

- Government, international/regional organizations and NGOs should actively engage the private sector in future DRR agendas through active public-private dialogues.
- Governments need to ensure an enabling environment for the development of competitive disaster risk transfer solutions, for example, through legal and regulatory reforms (e.g., building codes and insurance regulation).
- Local governments have an important role to play as they normally manage the areas affected by disasters. However, they are not much assisted by what happens at the global level (data, etc). Thus, capacity building of local governments is needed.

# Impact

## Media

The Climate Game Change conference received a wide media reporting in 66 different media outlets covering Thailand, Taiwan, India, Asia Pacific, Global Newswires, Environment Press, and the U.S.

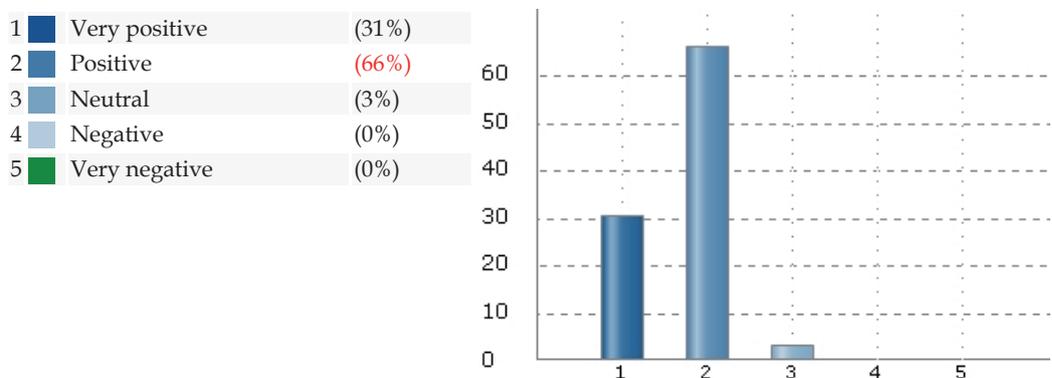
The 66 media channels include NY Times, International Herald Tribune, Scientific American, USA Today, Fox News, Taiwan News, Business Week, CNBC News Philippine Star, Hindustan Times and the Bangkok Post. The wide spread is largely thanks to articles written by Associated Press and Reuters.

## Delegates' opinion of Climate Game Change

In an online-survey sent to delegates after the conference, the overall opinion of the conference was positive. Survey results show that many participants went home with new ideas, and were in general pleased with the quality of the substance and format.

Both morning panels and breakouts were highly appreciated, with 82% of the respondents stating that their knowledge was deepened by the discussions in the morning-panels. The moderator of the two morning-panels, Veronica Pedrosa, got an approval rate of 87%.

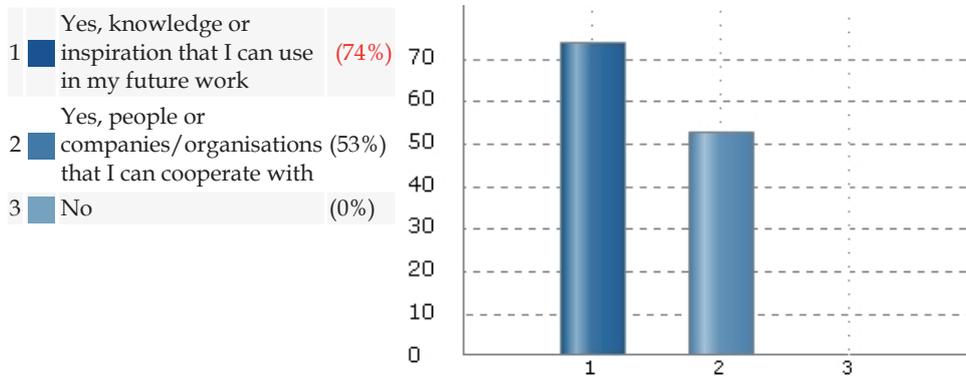
### Q: What was your overall experience of the conference?



Most of the respondents in the survey say they attended the conference in the hope to learn more about climate change adaptation, and to network and many seem to have achieved those goals:

**Q: Did the conference add any value to you and your organisation?**

(it was possible to choose both “yes” answers)



**A few of the comments from the respondents to the survey:**

“There should be a follow up process (such as the conference like this time) in working out on the issues of Climate Change. Developing and Least Developing Countries need more contributions both hardware and software.”

“The conference should be held annually with an expanded program.”

“More views and participation from the private sector would have been interesting.”

“Too short”

“The total event need more PR, marketing to ClimChange target groups”

“It was well organised”

“Excellent and timely topic.”

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For more information on the Sida Development Area or the Asia-Pacific Business Forum, including programme, speakers, presentations and webcasts, please visit:  
[www.climategamechange.org](http://www.climategamechange.org), [www.sida.org/area](http://www.sida.org/area) or [www.unescap.org/apbf](http://www.unescap.org/apbf)

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Sida works according to directives of the Swedish Parliament and Government to reduce poverty in the world, a task that requires cooperation and persistence. Through development cooperation, Sweden assists countries in Africa, Asia, Europe and Latin America. Each country is responsible for its own development. Sida provides resources and develops knowledge, skills and expertise. This increases the world's prosperity.

ESCAP is the regional development arm of the United Nations and serves as the main economic and social development centre for the United Nations in Asia and the Pacific. Its mandate is to foster cooperation between its 53 members and 9 associate members. ESCAP provides the strategic link between global and country-level programmes and issues. It supports Governments of countries in the region in consolidating regional positions and advocates regional approaches to meeting the region's unique socio-economic challenges in a globalizing world. The ESCAP office is located in Bangkok, Thailand. Please visit the ESCAP website at [www.unescap.org](http://www.unescap.org) for further information.

#### **Want to know more?**

Visit Sida's Website, [www.sida.se](http://www.sida.se), and find additional information about Sida and Swedish development cooperation

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