

Adaptation in the Post-2012 Climate Regime: Some Perspectives from Asia

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IGES Stakeholder Consultations

- Round I (2005) All issues including adaptation
 - * Republic of Korea (16 June)
 - * Indonesia (29 June)
 - * India (29 July)
 - * China (30 August)
 - * Viet Nam (28 September)
 - * Regional (15 September)
 - * Japan (Interviews with experts)

- Round II (2006)
 - Sub-regional consultations on energy security & SD, CDM, technology and adaptation
 - **Northeast Asia, Beijing** **3-4 July**
 - **Southeast Asia, Bangkok** **19-20 July**
 - **South Asia, New Delhi** **9-10 August**

- Round III (2007)
 - Theme-based consultations in China and India (**August-September**) on sectoral approaches, technology transfer, co-benefits and adaptation financing & mainstreaming

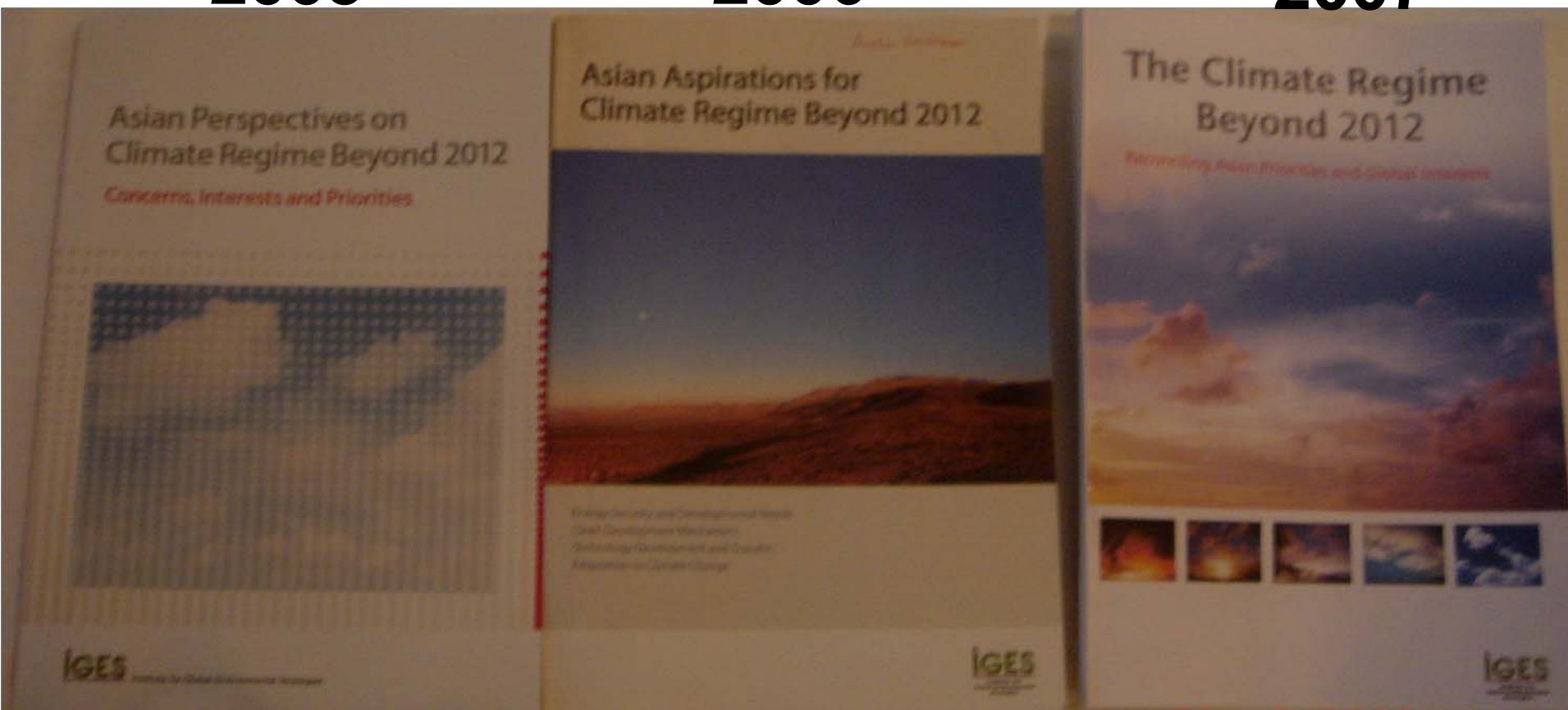
- Expert consultations and Questionnaires

Publications based on IGES Consultations on the Post-2012 Climate Regime

2005

2006

2007



Projected Impacts of Climate Change in Asia

Sector	Projected Impacts	Source: IPCC, 2007
Agriculture/ Forestry	<ul style="list-style-type: none"> • <u>Increased risk of hunger</u> in South Asia due to 30% decline in cereal yields • Increase in agricultural water demand by 6-10% or more for every 1°C rise in temperature; • Decline in productivity of grasslands and milk yield; More forest fires 	
Water	<ul style="list-style-type: none"> • <u>Decline in water availability</u> from ~1820 m³/yr to ~1140 m³/yr in India by 2050; May adversely affect >1 billion people • <u>Disappearance of Tibetan Plateau glaciers of <4km length</u> with 3°C rise • <u>Shrinkage of area of glaciers</u> by 80% over Tibetan plateau from 500,000 km² in 1995 to 100,000 km² by the 2030s 	
Health	<ul style="list-style-type: none"> • Exacerbation of <u>Cholera</u> in South Asia due to increase in water temperature • Increased endemic morbidity and mortality due to <u>diarrhoea</u> all over Asia due to floods and droughts; 	
Coastal/ Marine	<ul style="list-style-type: none"> • <u>Loss of 2500 km² mangroves</u> in Asia <u>with 1 m sea level rise</u>; • <u>Flooding of Red (5000 km²) & Mekong (15-20,000 km²) River deltas</u> • <u>Loss of ~30% of Asia's coral reefs in next 30 years</u> • <u>2.6-18.8 million people face flooding risk by 2100</u> 	

Key Issues Discussed

- I. National interests & priorities; Assessment of post-2012 climate regime proposals and preferences
- II. International protocol on adaptation
- III. Adaptation financing
- IV. Integration of adaptation concerns in sectoral/national development and ODA

Diverse Perspectives

Developed countries

- Largely a national responsibility & climate regime should only play a facilitative role.
- Huge challenge that cannot be addressed only through UNFCCC and KP; May become a bottomless pit for funds.
- Initiatives such as ODA must be accounted for.
- Scientific uncertainties in differentiating the impacts of climate variability and climate change hinder discussions on burden sharing.
- Developing countries are only interested in incentives without concomitant mitigation responsibilities.

Developing countries

- Largely a responsibility of developed countries and international regime should be designed in a way to deliver such responsibility.
- Developed countries not seriously committed (equity and justice).
- Adaptation financing should be in addition to ODA. It must be considered a compensation rather than aid.
- Focus on scientific uncertainties is an excuse for inaction.
- Climate negotiations paid little attention to adaptation or incentives; Linking mitigation responsibilities with adaptation is not justified; Divisions among the developing countries are also a reason for slow progress:

I. National Interests & Priorities -1

- Kyoto Protocol had limited influence in reducing GHG emissions worldwide or on adaptation in Asia to date.
- Future regime must consider Asian concerns, interests and priorities (including adaptation) more effectively than before.
- GHG mitigation commitments in post-2012 regime should not constrain adaptation & sustainable development in Asia. Implications of proposals such as 50% GHG reduction by 2050 on developmental space and/or adaptive capacity of developing Asia are to be assessed.
- Post-2012 regime discussions should give equal weight to adaptation as mitigation; Developing Asia is more interested in a package comprising mitigation, adaptation, technology and financing rather than mitigation targets alone.

I. National Interests & Priorities - 2

- Future regime as well as national policy makers should provide credible signals to enable long-term adaptation investments in developing Asia.
- To foster adaptation, post-2012 climate regime should
 - Consider equity and justice more thoroughly than before
 - Facilitate synergies between “top-down” support and “bottom-up” engagement approaches
 - Increase focus on developing adaptation technologies in key areas (coastal management, agriculture) and encourage integration of indigenous coping strategies in adaptation planning at all levels
 - Enhance research capacity to assess local impacts and prioritize adaptation measures
 - Promote regional cooperation in trans-boundary issues such as river basin management
 - Involve the private sector more actively (initially in sectors dependent on natural resources, and tourism)

Coverage on adaptation policies and measures as reflected by number of pages in National Communications of selected Asian countries

Country	Total number of pages	No. of pages describing impacts and vulnerability	No. of pages discussing adaptation policies
Bhutan	63	10	2
Cambodia	79	8	2
China (NC1)	112	13	4
India	292	48	8
Indonesia	116	10	3
Japan (NC4)	314	11	0.5
Lao PDR	97	2 lines	1 line
Malaysia	131	30	7
Maldives	134	30	10
Mongolia (NC1)	106	18	7
Nepal	181	41	10
Pakistan	92	14	9
Papua New Guinea	83	20	6
Republic of Korea (NC2)	132	8	2
Singapore	75	5	1 line
Sri Lanka	122	12	5
Thailand	100	15	2.5
The Philippines	107	20	12
Viet Nam	135	17	4

Post-2012 Regime Proposals on Adaptation - Asian Preferences

1. Adaptation as *one of the components* of an international framework **(8 proposals)**
2. Proposals discussing impacts or adaptation comprehensively **(5 proposals)**
3. Proposals on a single component of adaptation (e.g., Adaptation financing) **(15 proposals)**

Preferences

- Proposals by Ott et al., CAN and Mueller & Hepburn (Aviation levy proposal) attracted the most attention.
- Participants favoured proposals on mainstreaming adaptation into development, and those that made adequate provisions for “new and additional” financing for adaptation (e.g., TERI’s proposal).

II. International Protocol on Adaptation

- Why & what?
 - To facilitate a strengthened, sustained and multi-faceted international approach to adaptation (may enhance mitigation efforts by DCs)
 - Adaptation scope, baselines, and targets; Decision making structures; Mechanisms for mainstreaming and monitoring at international and national levels (e.g. adaptation PDD); Market instruments; Burden sharing mechanisms for financial and technological flows; Targets for financing, Metrics for adaptation, etc.
- India's attempt at COP8 in 2002 & AOSIS response
- Many stakeholders sought for a global campaign to raise awareness on the need for adaptation protocol.
- Some were sceptical, however, due to
 - Lack of clarity on the scope of adaptation
 - Diversion of attention from mitigation & potential loss of linkages
 - Long negotiation process
 - Lack of clear burden sharing mechanisms

III. Adaptation Financing

- Adequacy, Predictability, Accessibility and Sustainability of financial flows
 - Huge gap between estimated costs (\$28-86 billion per year) and available funds (pledged amounts are not adequate to cover even LDC priorities)
- **Diversification** of financing instruments
- Streamlining of **market mechanisms** to promote adaptation
- **Fast track approval** procedures for priority projects
- Deployment of **support mechanisms** such as micro credit, micro insurance and weather derivatives
 - Limited availability of insurance instruments (only 10% as against 54% in the Americas)
 - Need for a region-wide catastrophic insurance facility

Burden Sharing Principles

1. **Adaptation beneficiaries pay principle**

- Beneficiaries of adaptation measures bear the costs
- Not equitable in terms of historical responsibility and capacity

2. **Emitters pay principle (polluters pay principle)**

- Emitters pay in proportion to cumulative GHG emissions over a certain period (e.g., after 1992, after industrial revolution, etc.)

3. **Ability to pay principle**

- Burdens shared in proportion to the levels of income or wealth

4. **Climate-change winners pay principle**

- Burdens shared in proportion to climate change benefits
- May not provide much incentives to curb emissions
- Climate change benefits and emissions are not necessarily linked

Financial potential of selected proposals

Proposal	Fund raising mechanisms
International Air Travel Adaptation Levy (IATAL) (Muller & Hepburn 2006)	<ul style="list-style-type: none"> • US\$10 on each overseas ticket may raise up to US\$8 billion annually, as there are 800m international air travelers per year.
Global Carbon tax (Zhu et al., 2004)	<ul style="list-style-type: none"> • US\$1/ton CO₂ in Annex I countries • Up to US\$14 billion annually (Authors' calculation)
Two-track approach for adaptation funding (Bouwer and Aerts 2006)	<ul style="list-style-type: none"> • Fixed percentage of GDP for Annex I countries • 0.03% of GDP produces a total of about US\$10.9 billion (Authors' calculation)
Specialized funds (Tuvalu 2005 & 2008)	<ul style="list-style-type: none"> • A share of proceeds from a levy on fossil fuel sales in Annex I countries – effectively same as carbon tax
Risk management schemes (Parry et al 2005)	<ul style="list-style-type: none"> • Mandatory contributions from industrialized countries in proportion to their GHG emissions and GNP: Carbon tax + payment based on GDP

Views on Adaptation Financing - 1

- None of the proposals are likely to raise needed amounts; Negotiators should explore options for broadening the funding base both within and outside UNFCCC.
- Both emitters pay & ability to pay principles have the potential to raise sufficient funds, but determining a politically acceptable combination of thresholds for burden sharing remains a challenge.
- Create a mandatory global funding scheme based on “polluter pays” (historical responsibility) and “climate change winners pay” principles (e.g. global carbon tax and increased levy from all flexibility mechanisms).
- Donors should promote innovative risk sharing and transfer mechanisms such as insurance to assist the most vulnerable

Views on Adaptation Financing - 2

- Public resources must play a larger role in financing adaptation initially (especially in areas where private initiatives are inadequate). Future regime should identify opportunities for effective involvement of the private sector.
- LDCs and SIDS should get preferential support from adaptation funds; Streamlining of procedures to access adaptation funds, including the removal of co-financing requirement, are necessary for LDCs and SIDS.
- Support to early warning systems with global benefits should be given more attention.
- Additional funds for micro-adaptation beyond the current USD 5 million is critical. Micro-adaptation projects can contribute to the global benefit of poverty alleviation.

Options for Enhancing Resource Flows for Adaptation in Asia

- Increased attention to adaptation by regional & international financial institutions (ADB & WB clean energy investment frameworks, environmental transformation fund, etc.)
- Development of market mechanisms to facilitate adaptation (adaptation credits, adaptation vouchers, payment for ecosystem services, corporate social responsibility, etc.)
- Enhanced synergies among climate, disaster risk and development assistance communities
- North-South and South-South public and private investments including strengthening of linkages between adaptation and voluntary carbon markets
- Creating a region-wide adaptation facility along the lines of ADB CDM facility & through collecting a levy on FDI

Additional options

- Mobilize new and additional resources through
 - Maximizing local efforts (microfinance, customized credit schemes, climate-insensitive income generating opportunities, etc.)
 - “Climate proofing” of ODA investments by integrating adaptation concerns in development assistance

- Enhance the role of insurance sector through
 - Creation of an Asian Catastrophic Risk Insurance facility
 - Utilization of risk transfer instruments such as weather derivatives, weather hedges and catastrophe bonds
 - Insurance backstop to cover premiums by vulnerable communities

- Ideally, adaptation should be a self-sustaining mechanism in the long run at all levels without much dependence on external assistance.

IV. Mainstreaming

- Progress in agriculture and water sectors & ODA
 - National agricultural policy documents in Bangladesh, China, India and the Philippines refer to the need for considering climate variability but **do not consider climate change impacts explicitly.**
 - Water **managers showed little enthusiasm** for factoring long-term climate predictions into their calculations.
 - **Very limited attention** to climate change adaptation in ODA projects in Asia
 - Synergies between adaptation, disaster risk management and desertification, etc. are yet to be exploited effectively.
 - NAPA process in some LDCs (e.g., Bangladesh) served as a catalyst at least in planning stages.

Barriers to Mainstreaming

- **Lack of awareness** among policymakers
- **Mismatch between the temporal and spatial scales** of climate projections and information needs
- **Lack of capacity** of officials to integrate climate information into sector planning processes
- **Limited leverage** of environment ministries on sectoral agencies and policies
- High reliance on **structural and technological options**
- **Ineffective** stakeholder involvement
- **Institutional barriers:**
 - Inefficient regulatory frameworks,
 - Fragmentation & weak coordination
 - Lack of policy coherence and consistency between adaptation and development goals

Post-2012 regime - Mainstreaming

- Demonstrating promising options of mainstreaming & identification of “no-regrets actions” through Nairobi Work Programme and GEF initiatives
- Mandating all development planning and assistance policies to undergo an “adaptation check”.
- Creating incentive schemes for mainstreaming (preferential loan facilities, reduced premiums for insurance)
- Building support for more detailed V&A assessments and mainstreaming metrics
- Strengthening institutional frameworks and human capacities to mainstream adaptation concerns

Thank you.