1. INTRODUCTION

The chapter discusses the rationale for initiating the consultations on the climate regime beyond 2012, the assessment of the current climate regime and a brief overview of climate regime related challenges in the Asia-Pacific.

1.1 Rationale for the Consultations

Climate change is a major challenge of the twenty-first century for the Asia-Pacific region, given its high vulnerability due to relatively large/poor populations with low adaptive capacity.

Climate change is a major challenge of the twenty-first century for the entire world, but more so for the Asia-Pacific region, given its high vulnerability due to relatively large/poor populations with low adaptive capacity. Indeed, 90% of global climate-related disasters affected the region and contributed to over a half a million deaths since the 1950s (DFID, 2004). Current evidence thus suggests that the key drivers of both social and economic development are adversely affected by climate change, thereby jeopardising sustainability in the region.

The international community has begun to address the issue of climate change through the United Nations Framework on Convention on Climate Change (UNFCCC) and its Kyoto Protocol. As of 16 September 2005, the Convention has 189 parties while the Protocol has 156 parties. Subsequent to the Russian ratification in November 2004, the Kyoto Protocol finally entered into force on 16 February 2005. As the first commitment period of the Kyoto Protocol runs only up to 2012, it was agreed at the time of enacting the Kyoto Protocol in December 1997 that the global community would initiate negotiations in 2005 on a future climate regime beyond 2012.

Discussions on the future climate regime may include at least four components.

The discussions on a future climate regime may include, inter alia, at least four components:

(a) Deeper and broader efforts of GHG mitigation than are currently prescribed under the Kyoto Protocol, which may be interpreted as further deep emission cuts by Annex I countries, and emission control pledges by major developing countries. It is now widely believed that the Kyoto Protocol is an important first step in global efforts to tackle climate change but its environmental effectiveness is rather marginal, because of (i) the decision to withdraw by major Annex I countries such as the USA and Australia, (ii) the "environmental integrity" issues such as "hot air" and (iii) the absence of linkages with the other environmental and developmental actions.

(b) New and/or restructured market mechanisms that take into account sustainable development needs of the developing countries.

(c) Enhanced focus on adaptation, and its mainstreaming in development planning and international assistance.

(d) More specific agreements on technology development and transfer, financial assistance and capacity building.

The above components have significant implications for sustainable development in the Asia-Pacific region. Many Asian stakeholders, including negotiators, policy-makers, Non-governmental organisations (NGOs) and the private sector perceive that global climate negotiations to date did not effectively consider Asian interests in designing the

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architecture for the climate regime. Negotiators from developed countries, on the other hand, contend that negotiators from the region, in general, took a backstage in such discussions. Indeed most developing countries in the region which are mainly preoccupied with their own near-term development needs have largely opted out of the construction of a climate regime. We believe that frank discussions with senior policy-makers and negotiators from the region are a first, crucial step to break this impasse and identify ways to build a more equitable and effective climate regime from an Asian perspective.

1.2 Consultation Process

The goal of informal consultation process is two-fold: (a) to promote new and constructive thinking in the Asia-Pacific region on the future actions against climate change beyond 2012, and (b) to contribute to the shaping of a future climate regime that adequately reflects the concerns and developmental aspirations of countries in the region. Specific objectives are listed below:

The goal of consultations is to promote new and constructive thinking in the Asia-Pacific region on the future climate regime, and to contribute to the shaping of a future climate regime that adequately reflects concerns and developmental aspirations of the region.

1.2.1 Primary objectives:

- To facilitate discussion on the national concerns, aspirations and priorities for national and regional development in relation to global climate stabilisation goals.
- To discuss progress in current efforts against climate change as a basis for identification of future actions that can protect the global climate system without dangerous impacts on socio-economic systems.
- To assess the view points of key stakeholders on how the future climate regime should evolve based on national circumstances and developmental priorities.
- To define pathways to effectively engage Asia in shaping the future climate regime.

Secondary objectives:

- To raise the profile of climate change in the development policy of major Asian countries.
- To strengthen the capacity of the key decision-makers in Asia to serve as the leaders of the next phase of the international climate change negotiations.

1.2.2 Methodology

The consultation follows a two-round approach, with Round 1 completed in FY (fiscal year) 2005 in time for the presentation of the findings at the COP11/MOP1 (the 11th Conference of Parties to the UNFCCC and the 1st Meeting of the Parties to the Kyoto Protocol). The Round 1 consultations with key policy-makers, academia, NGOs and business representatives were conducted in Republic of Korea (16 June 2005), Indonesia (29 June 2005), India (29 July 2005), China (30 August 2005) and Viet Nam (28 September 2005). In addition, a region-wide consultation was held in Yokohama, Japan on 15 September 2005 in conjunction with the 14th Asia-Pacific Seminar on Climate Change mainly to ascertain the views of representatives of other countries where national dialogues could not be conducted.

The Round 2 consultations in FY 2006 are expected to be more extensive than those in Round 1 and will include three segments: (a) A leaders roundtable with key ministers, CEOs, and other senior officials and executives, (b) A larger gathering with a broader group of policymakers, stakeholders, and experts, and (c) An open symposium for the interested public. The participation in first two segments would be by invitation only. As in Round 1, Round 2 would involve a region-wide consultation as well.

The consultations are conducted with the understanding that all the views expressed are informal and in a personal capacity and that the views would not be attributed to any person or organisation in IGES reports. It is also important to note that the "Asia-Pacific region" referred to in this report does not include Australia, New Zealand, and countries in north-west and central Asia.

At each consultation meeting, a framing presentation on the preliminary assessment of the current climate regime was made to provide a basis for the identification of issues to be resolved in discussions on a future climate regime. In this assessment, both achievements and failures of the current regime were highlighted. The following section describes the assessment in brief.

1.3 Assessment of the Current Climate Regime

The Kyoto Protocol is considered a significant step to address climate change as it includes the targeted emissions reduction pledges by Annex I parties and the establishment of market-based mechanisms.

The climate regime's basic principles are enshrined in various articles of the UNFCCC. For example, Article 2 states that greenhouse gases (GHG) must be stabilised at a level that would prevent dangerous human interference with the climate system within an adequate time-frame and that it should allow the adaptation of ecosystems naturally without any threat to food production while ensuring sustainable economic development. Three broad guiding principles include: common but differentiated responsibilities, respective capabilities and equity.

Elements of a climate protection regime include provisions for controlling GHG emissions, managing economic costs and promoting accountability (Baumert and Kete, 2002). From this perspective, the current regime already includes the principles of equity, economics, and sustainable development; form and forum of negotiations; time frame; mitigation commitments; some references to adaptation; and procedures for the implementation and compliance besides commitments by Annex I parties for the transfer of technologies and financial resources to developing countries.

In order to make an objective assessment of the current regime and suggest changes to it, it is important first to look at what it achieved and failed to achieve (Table 1.1).

Insofar as the accomplishments are concerned, the entry into force of the Kyoto Protocol is considered a significant step towards climate change mitigation as it involves targeted emissions reduction pledges by major Annex I countries. The agreement on the Marrakech Accord and the establishment of market-based mechanisms to reduce the cost of the implementation of the Convention and the Kyoto Protocol can be seen as other major achievements. In addition, the need for regular submission of National Communications by both Annex I and non-Annex I parties, which ultimately leads to an increased understanding among the international community, may be considered

Table 1.1 Major achievements and weaknesses of the current climate regime process

Achievements	Weaknesses
• Prompt start of negotiations on climate change • Broad participation of countries in the Convention (189 parties) • Entry into force of the Kyoto Protocol • Marrakech accords on market-based mechanisms and adaptation • National Communications • Engagement of the private sector • Engagement of civil society • Increasing attention on adaptation issues • Architecture for the first effective compliance regime • Mechanisms for enabling transfer of technologies and financial flows, and capacity building	• Long international negotiation process and considerable delay in entry into force of the Kyoto Protocol • Weakening of Kyoto Protocol objectives and targets in search for consensus leading to limited environmental effectiveness • Differing positions on global participation (e.g., rejection of the Protocol by major Annex I countries such as USA and Australia, and lack of agreements on national actions) • No major change in emissions growth trends by Annex I countries • Rigidity of top-down, intergovernmental process • Undue focus on assigning blame thereby exacerbating North-South differences • Complexities of market mechanism such as Clean Development Mechanism (CDM) • Failure to link climate change and sustainable development, and the lack of effective mainstreaming options • Inadequate progress in technology transfer, climate finance and capacity building • Inadequate attention to adaptation (as compared with the size and complexity of the issue) • Poor communication to society on effective strategies to tackle climate change

another major achievement. The design of appropriate mechanisms for the review of the adequacy of commitments, and procedures for the review of the implementation of the Convention are other points of success.

Current climate regime has several weaknesses, which can be the basis for its restructuring or strengthening beyond 2012.

Despite the several accomplishments, there are many weaknesses in the current regime. The current regime is seen as a rigid top-down process involving long, protracted negotiations with each major party aiming to safeguard its short-term interests rather than looking at the long-term goals. The approach itself is highly susceptible to non-cooperation, obstructionism and intransigence from politically and/or economically powerful participants. For example, it took 3 COP (Conference of the Parties) and 8 AGBM (Ad Hoc Group for the Berlin Mandate) sessions to conclude the Kyoto Protocol and it took 7.5 sessions to prepare for the first COP/MOP. There were longstanding disagreements on less important issues, such as preparations of National Communications with reference to their frequency, review process and contents. An extremely complicated decision-making process on the implementation of market-based mechanisms is another weakness. Although a good architecture has been built over time to facilitate technology transfer, financial assistance and capacity building in non-Annex I countries, the current regime is perceived by many as a failure. Insufficient attention to adaptation has also been referred to by many as a weakness in the current regime.

The above weaknesses in the current regime provide a basis for its restructuring or strengthening beyond 2012. It is now believed that several key elements of the Convention and the Kyoto Protocol have been watered down in the interest of building a consensus to reach agreement among the parties. Indeed the interests of both industrialised countries and developing countries often vary considerably. For instance, industrialised countries are more concerned about the cost of compliance and utilising market-based mechanisms for reducing their GHG mitigation costs. They also argue for

the participation of major developing countries (aiming at global participation) claiming that GHG emissions in developing countries are soon going to exceed those of Annex I countries. On the other hand, developing countries are more concerned about their development needs and argue that mitigation should be based on the principles of differentiated responsibility and equity. They also demand that Annex I countries must first deliver on their commitments in technology transfer and financial assistance. Most developing countries are interested in utilising the CDM for enhancing their economic development and seeing to it that a future climate regime is more supportive to adaptive capacity of their populations and ecosystems. Of course, the order of priority of issues varies with each country among both developed and developing countries.

Several issues must be resolved to achieve progress in discussions on the future climate regime.

In order to make further progress in future regime discussions, we believe that the following issues must be resolved:

(a) Defining a long term target in quantifiable terms: setting a target either in terms of temperature rise, GHG concentrations or other indicators such as energy intensity, and then defining the necessary actions to be taken to be within the target could help mobilise the policy-makers to take proactive measures.

(b) Reducing uncertainties on costs and benefits of mitigation and adaptation

(c) Finding the means so that the USA and Australia, which withdrew from the Kyoto Protocol, could participate more proactively in a future regime than in the current regime.

(d) Involvement of major developing countries in both mitigation and adaptation efforts while paying due attention to their development rights and aspirations.

(e) Finding more effective means to involve the private sector and civil society.

(f) Showing demonstrable progress in mitigation actions by Annex I countries that have ratified the Kyoto Protocol.

(g) Innovative means for facilitating development and transfer of climate-friendly technologies.

(h) Increasing the convergence of interests and priorities of industrialised and developing countries.

(i) Reconciling global strategies with local realities in both Annex I and non-Annex I countries.

(j) Accelerating vulnerability assessment and adaptation actions as well as technology needs assessment, especially in highly vulnerable countries, such as the LDCs and small island states.

(k) Reflection of climate concerns in international development assistance programmes, such as the integration of adaptation funding into Official Development Assistance (ODA), or, in other words "continuum of adaptation and development ".

Several suggestions have been given to move forward in the above areas. They include:

(a) Distributed governance, better communication and engagement of diverse stakeholders.

(b) Identification of "tipping points" in technology that could bring considerable GHG mitigation benefits.

(c) Talking beyond numerical targets and including voluntary and contractual measures, especially for large developing countries.

(d) Designing optional protocols for adaptation, technology transfer, and forestry.

Some people opined that focussing on a limited number of key actors involving both major Annex I and developing countries should accelerate the progress in building a more effective climate regime. Others argued that such a process would be counter-productive as all nations are impacted by climate change and that there should be a means for addressing the concerns of the remaining countries as well.

1.4 Climate Regime-related Challenges in the Asia-Pacific Region

1.4.1 Outlook for energy demand and GHG emissions in Asia

Energy demand in the Asia-Pacific region is escalating due to the rising population, rapid economic and social transformations characterised by urbanisation, and industrialisation (IPCC 2000, APERC 2002, IEA 2004). IPCC projections show that the global primary energy demand in 2030 would be 895 exajoules (EJ), with Asia accounting for 285 EJ in 2030 in A1 scenario (Figure 1.1). The electricity consumption in Asia, for example, is expected to more than double by 2020, while oil consumption is forecast to rise from 19 million barrels per day (bpd) in 2000 to 35 m bpd by 2020. As for individual countries, China's power consumption rose by 15% in 2003, sharply higher than its 9% economic growth. Projections by the Energy Information Administration (EIA, 2002) indicate that oil demand by China, Japan and Republic of Korea will reach 10.5, 6.4 and 3.0m bpd respectively in 2020. Likewise, the Energy and Resources Institute (TERI) predicts that India's oil demand will rise from 2.1 m bpd in 2004 to 5.6 m bpd in 2030, roughly a fifth of OPEC's current output (Financial Times, July 2004).

While per capita GHG emissions in developing Asia (1-2 tons) are much lower than the world average and 10 to 20 times less than those of the industrialised countries, the total emissions from Asia (which currently account for 20% of the world total) are increasing fast. IPCC projections show that Asia may contribute as much as 3-5 giga tons of CO_2 (as carbon) by 2030 (Figure 1.2). For example, India's GHG emissions are projected to increase from 139 in 2000 to 780 million metric tons of CO_2 (MMt CO_2) by 2020 (ALGAS, 1998). The use of poor quality fuels such as coal with a high sulphur content, inefficient methods of energy production and use, poor automobile and road conditions, and the increasing use of high-energy transportation methods are also contributing to the rise in GHG emissions from the region.

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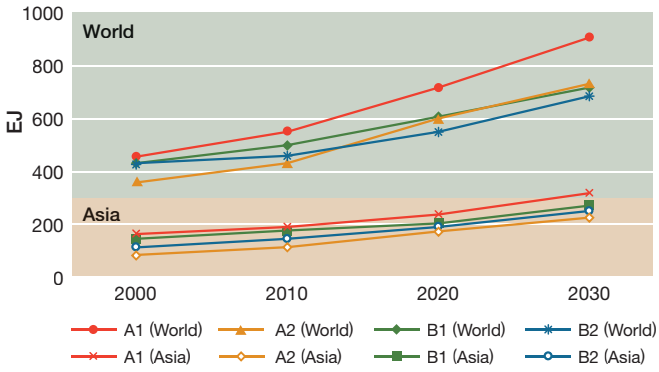
1.4.2 Current status of Asia-Pacific in international climate negotiations

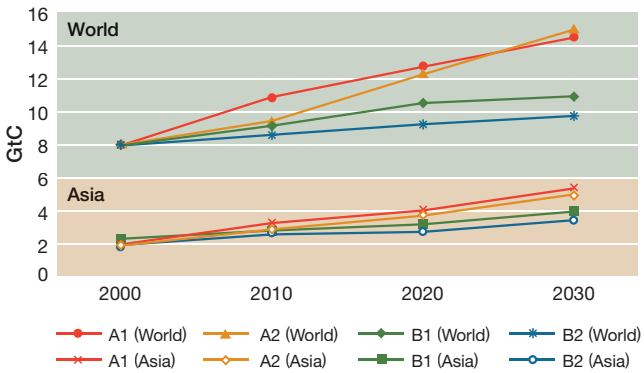
The Asia-Pacific region is not a homogeneous entity with uniformly similar interests on future climate regime. The region has 13 Least Developed Countries (LDCs), several small island states, Organisation for Economic Cooperation and Development (OECD) members (Republic of Korea, Japan), Organisation of Petroleum Exporting Countries (OPEC)

Figure 1.1 Primary energy projections in Asia and the world



Source: IPCC, 2000

Figure 1.2 CO_2 emission projections in Asia and the world



Source: IPCC, 2000

The interests and concerns of the countries in the region may be similar at time but conflicting and competing on several occasions.

members and the most populous countries, China and India. The region has only one Annex I country, Japan, with legally-binding emissions reduction targets of the Kyoto Protocol. Therefore, the interests and concerns of these countries may be similar at times but conflicting and competing on several occasions. It is important to draw lessons from both commonalities and differences. In this connection, it is worth bearing that the impacts of climate change too vary with each country (Mendelsohn, 2003).

Despite its high vulnerability to the impacts of climate change and growing GHG emissions, the Asia-Pacific region, in general, had a relatively low profile in the climate regime discussions to date as compared with Europe and North America. This is largely related to various factors, among others, listed below:

Despite its high vulnerability to impacts of climate change and growing GHG emissions, the Asia-Pacific region had a relatively low profile in climate regime discussions to date.

(a) Low policy priority to environmental issues in general and climate change in particular in most countries (poverty alleviation, employment, housing, education and heath care continue to compete for scarce resources and decision-making), and the insufficient awareness of climate change issues among policy-makers.

(b) Lack of adequate and reliable projection data and information on local impacts of climate change, and a lack of understanding of the critical role of climate change for achievement of the Millennium Development Goals.

(c) Uncertainty on ways to distinguish the impacts of natural climate variability and anthropogenic climate change, partly leading to a clear preference for short-term reactive policies of climate-related disaster response and continued hesitation towards long-term proactive climate change policies.

(d) Uncertainty of costs and benefits of various mitigation and adaptation measures, and consequent absence of willingness to seek co-benefits from GHG mitigation, such as industrial or infrastructural modernisation or efficiency improvement.

(e) Lack of adequate institutional and human capacity to deal with climate change.

(f) Insufficient knowledge of ways to transform current energy-intensive economies into climate-friendly societies.

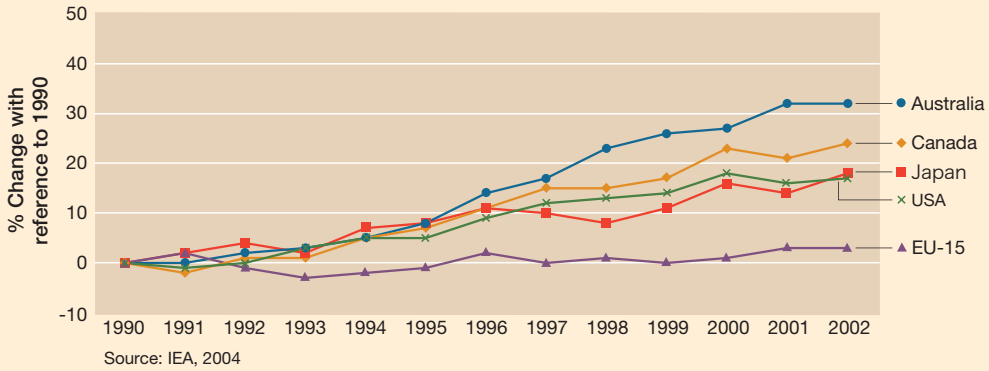
(g) Lack of clarity on reconciling global challenges such as climate change with local realities.

(h) Perception among countries that they get little benefit from the current regime negotiations in terms of transfer of technologies, financial assistance and capacity building.

(i) Lack of development of climate-oriented market mechanisms in certain countries.

Many developing countries in the region have adopted a "wait and see" attitude in climate negotiations to date, as they are yet to see how industrialised countries live up to their past commitments in terms of GHG mitigation and transfer of finances and technologies under the Convention and the Protocol. Indeed, this year is also considered the first round of evaluation for measuring the demonstrable progress. Unfortunately, there is no perceptible decline in overall growth of GHG emissions from major Annex I countries (Figure 1.3). The IEA Energy Outlook for 2004 predicts that the global CO_2 emissions will increase by 63% over the 2002 levels by 2030, and that Annex 1 OECD CO_2 emissions will be 30% above the Kyoto targets by 2010. By 2010, energy-related CO_2 emissions in the European Union (EU) will be 20% above the 2002 level.

Figure 1.3 Trends of CO_2-eq emissions in major Annex I countries



Source: IEA, 2004

Moreover, many Asian countries are unsure of how carbon markets will evolve and what the price of CERs will be in the long run, which will be significantly affected by the decisions on the future climate regime. It is also worth noting that discussions on the future climate regime have not reached the Asian societies in general and that no country in the region has yet elucidated its official position on a policy framework for the climate change beyond 2012, although a seminar of governmental experts was recently held in May 2005 to exchange views on this topic.

No country in the region has yet elucidated its official position on policy framework for climate change beyond 2012.

In order to make progress on the future climate regime-related discussions, thorough discussion on the above and other challenges is crucial. It is with this perspective we launched policy consultations on the future regime in various countries. The following chapters discuss the national concerns, interests and priorities of various countries individually. A region-wide assessment is then made to identify the commonalities and differences among concerns and interests of various countries.