Regional Environmental Cooperation in EU and ASEAN Lessons from Two Regions

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Contents

Introduction

This report follows the discussions at the Conference on "Regional Environmental Cooperation in EU and ASEAN: Lessons from Two Regions" organised by the Institute for Security and Development Policy (ISDP) and the ASEAN Studies Centre (ASC), held on February 22–23, 2010 at the Institute of Southeast Asian Studies (ISEAS) in Singapore.

The purpose of this conference was to gather scholars and policymakers from the European Union (EU) and the Association of Southeast Asian Nations (ASEAN) to discuss the question of regional cooperation on environmental protection in the two regions, and what lessons both regions can learn from each other in this regard. The environmental problems and environmental policy in EU and ASEAN were the focal points of discussion for the conference. There is a timely need to evaluate the goals, objectives, and policies of environmental protection and lessons learnt from the two regions' experiences in regional cooperation since EU and ASEAN are the world's leading regional institutions, so that future regional policies and intra-regional cooperation on environmental protection can benefit from these lessons. As a result, this conference provided an opportunity for the participants to update their knowledge on the successes and challenges experienced by the two regions.

22 participants, including policymakers, high-level representatives, academic scholars and NGO's from both regions attended the meeting. The topics covered by the conference include the following: 1) environmental governance; 2) conserving and renewable energy; 3) protecting air pollution and protecting water resources; 4) protecting biodiversity; and 5) implications for regional cooperation. Each session had a speaker each from EU and ASEAN, followed by a discussant from each region, debating the topic of the session. They focused on issues related to the environmental profiles and policies of their respective regions.

In this session, the participants discussed, in depth, issues of regional environmental governance and highlighted the challenges and opportunities for regional environmental cooperation in the EU and ASEAN. Overall, it focused on an overview of the EU and ASEAN experience in environmental governance in terms of regional cooperation to share some lessons from

two regions. The first session mainly discussed the difference between the EU and ASEAN on environmental governance, and ASEAN's non-interference principle.

Session 1: Towards Sustainable Development – Examples of Environmental Governance in EU and ASEAN

In this session, the participants discussed, in depth, issues of regional environmental governance, highlighting the challenges and opportunities for regional environmental cooperation in EU and ASEAN. Overall, discussions focused on an overview of the EU and ASEAN experience in environmental governance in terms of regional cooperation to provide some lessons from two regions. The first session mainly discussed questions of difference between EU and ASEAN on the environmental governance and ASEAN's non-interference principle.

EU Environmental Governance

EU environmental governance started at the early 1970s with the Stockholm Conference on Human Environment in 1972. Before that, there was no regional cooperation in the field of environment in the EU. Overall, EU environmental governance can be described as a mixture of four to five environmental governance regimes which have successively been layered on top of each other over the past 40 years. The evolution of EU environmental governance started with the "environment regime" which was later followed by the "Internal Market regime," the "integration regime," the "sustainable development regime," and the emerging "climate change regime"." These governance regimes can be distinguished in terms of their prevailing overall political priorities, legal foundations, underlying political dynamics, types of environmental objectives, and instruments. Despite certain modifications, each of the regimes can still be discerned in today's system of EU environmental governance.

ASEAN Environmental Governance

Environmental concerns are important comprehensive regional security in Southeast Asia as its complex nature and transnational impact of environmental security. ASEAN's environmental governance structure had evolved

from 1978 when the ASEAN Expert Group on the Environment (AEGE) was established under the ASEAN Committee on Science and Technology (COST). In 1989, AEGE was elevated to become the ASEAN Senior Officials on the Environment (ASOEN). ASEAN has an vital and potential role to play in developing policies and strategies emanating from intra-regional common environmental concerns, as well as the implementation of global environmental instruments. ASEAN has recently expanded its interactions with its dialogue partners and mechanisms such as ASEAN + 3 and the East Asian Summit in the field of environment. It has also taken a comprehensive approach encompassing other areas of cooperation, such as disaster management, human rights, energy security, food security and migration within the region. Still, there are strengths and weaknesses of the ASEAN way of governance. The ASEAN way of regional governance has enabled members to build mutual trust and confidence, and progress at "a pace comfortable" to all. Nevertheless, as environmental issues become more complex and complicated, and as ASEAN's mandate for environmental cooperation expands in tandem with the global mandate, the current way of governance has proved to be inadequate in terms of structure and the limited mandate of ASEAN personnel. Also, there is inadequate coordination in environmental management among the ASEAN member states. The main reason is that the ASEAN legal frameworks, programmes, plans of action, strategies, policies and several other initiatives are still weak.

Environmental degradation in Southeast Asia has been implicated in what some describe as a failure of regional cooperation within ASEAN. The basic argument is whether the main reason for inefficient environmental cooperation is the constraints of following the ASEAN way, namely the norm of non-interference, or the lack of experience in tackling environmental issues. Moreover, there remained a question if there is room for "flexible engagement" to rectify this. Former ASEAN Secretary-General Rodolfo Severino maintains that non-interference is not a doctrine that is adhered to and applied on dogmatic or ideological grounds. Essentially arising from pragmatic considerations, ASEAN's practice of non-interference has not been absolute. Despite this flexibility, non-interference has been "maintained" and springs from a practical need to prevent the exertion of external pressure against perceived national interest or the interest of the regime. Thus, even scholars who disagree with the norm of non-interference and call for

its revision cannot fault its continuing capacity to exert a morally binding influence on the conduct of ASEAN member-states.

Different Approaches to Environmental Governance in EU and ASEAN

The EU and ASEAN differ in the way each region structures environmental governance and implements environmental policy. For example, in the EU's experience, legal and economic mechanisms had to be created and institionalised at the intergovernmental and supranational levels. These mechanisms require EU members to waive, voluntarily, some of their sovereignty. ASEAN institutions, on the other hand, are strictly intergovernmental. For historical reasons, decision–making among the ASEAN member states is by consensus. Much criticism has been levelled at the consensus approach as it is seen as slow and lacking in legal backing. The differences present a question of whether a loose organisational structure and strong emphasis on national sovereignty, could limit its ability to promote regional environmental cooperation. Given an example of the United Nations Climate Change Conference held in Copenhagen in December 2009, many participants argued that the meeting was a failure, because it failed to make a legally binding agreement for countries. What was expected from Copenhagen was a legally binding agreement in which all developed countries would adopt specific targets to reduce carbon emissions. Nevertheless, there is, significantly, no specific reference, mandate or timeline by legally binding treaty in the Copenhagen Accord to each country. In this regard, strong reference to a legally binding treaty for regional cooperation could lead to more effective cooperation in dealing with environmental issues between different countries.

Conclusion

Some of the lessons that might be drawn from the experience of environmental governance development and implementation in the two regions are summarised below:

1. EU participants improved their understanding on the environmental challenges facing the ASEAN region; and the ASEAN participants learnt from European experiences on how regional environmental cooperation strategies are carried out.
2. What countries need now is a strategy that addresses the drivers of regional environmental cooperation and commits to the necessary, and that provides for timely action to reform policies and processes to reduce the drivers and the pressures on the environment. Also, binding measures are needed to implement effective regional environmental cooperation. Without such explicit commitment, the daunting challenges involved would be even harder to overcome.
3. The centrality of environmental concerns in regional security and development is increasingly becoming clear. However, regional organisations do not seem to have fully developed cooperation mechanisms on the issue. Questions remain on how to evaluate trends and respond to them, and to move from problems to solutions. Environment, climate change, and management of natural resources are taking an increasingly central position on the agenda of policy-makers and governments in both regions.

Session 2: Conserving and Renewable Energy

In this session, the participants discussed energy and climate policy, commitments to reduce carbon emissions, the benefits of energy efficiency and potential of renewable Energy from the two different regional perspectives of EU and ASEAN. Also, this session provided the latest developments in ASEAN renewable energy and EU policy experiences in promoting renewable energy utilization, in particular, biofuels energy.

Promote Renewable Energy and Energy Efficiency in Southeast Asia

The ASEAN speaker mainly discussed the issue of what is the best way to promote renewable energy and energy efficiency in Southeast Asia, highlighting findings from a study he had undertaken. Eliminating subsidies for conventional and mature electricity technologies, pricing electricity accurately, passing a nationwide feed-in tariff, and implementing a national systems benefit fund are considered as the best ways to promote renewable energy and energy efficiency. Implementing these approaches raised public awareness, protected lower-income households, and administered demand side management programmes. These are conclusions drawn from the speaker's interviews with almost 200 energy experts at research institutes in many Asian countries, and an extensive review of the policy literature.

More than 70 percent of the interviewed participants in the study consistently recommended eliminating government subsidies for conventional and mature energy systems as a policy response. Elimination of subsidies would improve competition in the electricity industry, removing the unfair advantage given to nuclear and fossil fuel technologies. End-use energy efficiency has received only $1 worth of subsidies for every $35 spent on forms of conventional supply. Not much has changed recently, with fossil energy receiving 86 percent of government subsidies, nuclear energy 8 percent, and renewables and energy efficiency only 6 percent. Approximately 60 percent of respondents indicated that electricity prices should be changed. Respondents indicated that policymakers could implement four changes concerning how electricity is priced by abolishing price caps, eliminating declining block rate pricing, reflecting time of use in electricity rates and bills, and

internalizing the cost of externalities. Abolishing price caps would enable electricity rates to reflect current market prices and volatility. Eliminating declining block rate pricing would create an incentive for industries to promote energy efficiency and consume less electricity. About half of respondents were strong advocates of making renewable power mandatory by implementing national feed-in tariffs (FIT) and guaranteeing renewable power suppliers access to the grid.

Nevertheless, this overwhelming array of policy mechanisms leaves one question unanswered: which one is the best? The study conducted by this speaker has concluded that at least four policies will be needed at once, not individually, if the barriers to renewables and energy efficiency are to be overcome. If countries had to pick only one mechanism, the most effective would be a feed in tariff.

EU Renewable Energy Directive (RED) and the Emerging Biofuels Market

The climate change now represents one of the greatest challenges for Europe. EU leaders agreed to cut CO2 emissions by 20% to 2020 from the 1990 level and bind 20% share of energy by 2020 to come from renewable energy. In addition, April 2009, the EU adopted the RED which included a 10% target for the use of renewable energy in road transport fuels by 2020. Renewable Energy Action Plans are required from each member state at specified time intervals; Guarantees of Origin (GOs) used to certify renewable; Grid Access provisions for transmission and distribution system operators for renewable energy sources. The EU is committed to working constructively for an agreement to control climate change among member states, and is leading the way by setting an ambitious agenda.

In the context of energy security and climate protection, bio-energy is invested with high importance as it is able to replace fossil energy carriers in the transportation and electricity sectors. For this reason, in many countries – including several EU members – biofuels are supported by government schemes such as quotas, tax exemptions and direct production subsidies. This has resulted in increased production and consumption of biofuels worldwide. In the EU, Germany has the highest share of biofuels in total fuel consumption with slightly more than 7%. However, recently, governmental support for bio-energy has been heavily criticized especially in the

context of rapidly rising food prices in 2007-2008. In the resulting 'food vs. fuel' debate, critics of biofuels voice their concern that enhanced biofuel production may lead to an enormous land use competition that would drive up agricultural product prices and, ultimately, food prices. It is, therefore, vital to get a better understanding of the economy-wide impacts of enhanced bioenergy production and especially its impact on land use competition and on agricultural and ultimately food prices. Currently, only Brazil is able to produce bio-ethanol from sugar cane at sufficiently low costs to be competitive with conventional fuels. There is an argument that Brazilian sugarcane ethanol production will have "virtually no impact" on food prices and provides the most significant cuts in greenhouse gas emissions.

The EU has recently decided on the biofuels environmental sustainability criteria, which were incorporated into the RED. There are concerns that the EU's sustainability criteria for biofuels are too strict and could lead to tensions with large producer countries, such as Brazil, which threatened during the negotiations to challenge the directive before the World Trade Organisation (WTO). The proliferation of different technical, environmental and social sustainability standards for biofuels production – without a system for mutual recognition – causes even more difficulties. It will be difficult to reach an international consensus. The introduction of additional environmental and social standards has the potential to create even bigger barriers if they are not developed globally, with the participation of both industrialised and developing countries. In this regard, the EU biofuels sustainability criteria will have significantly affect the development of biofuels in developing countries with impact felt in several areas once the criteria are adopted. Firstly, although large potential market provides a major opportunity, particularly co-product markets, the main problems are on accounting, tracking, data collection and analysis. Secondly, measurement, monitoring, compliance are key issues for the Least Developed Country (LDC) producers. Thirdly, the issue of land, such as its availability, tenure and changing values, are also critical for all stakeholders. Nevertheless, biofuels are expected to continue, globally, to play an important role in reducing the carbon emissions which have the greatest impact on the climate change.

Austrian Environmental Support Scheme

Dr Silke Mader shared the example of applying for a subsidy under the framework of the Environmental Subsidy Scheme for Austrian enterprises. Under the Environmental Support Act, the Environmental Support Scheme for Austrian Enterprises offers subsidies to private companies. Companies can obtain subsidies for the use of renewable energies, for the enhancement of energy efficiency and other climate-related measures. The fields with the highest priority of implementing the European Regional Development Fund (ERDF) programme were tourism, production, infrastructure, water and waste management. 56 % of the total ERDF co-financing was used for biomass heating systems and combined heat-and-power generation systems. The investment costs of projects eligible for funding in the framework of the Environmental Subsidy Scheme for Austrian Enterprises range between 35,000 EUR and 3,75 million EUR. In some cases, projects with costs as low as 10,000 EUR or as high as 6 million EUR are also eligible for funding. When applying for Structural funding in the framework of the Environmental Subsidy Scheme for Austrian Enterprises, technical and economic criteria have to be met.

Conclusion

Some of the lessons that might be drawn from the experience of conserving and renewable energy and implementation in the two regions are summarised below:

a. While the response to the removing the diffuse barriers facing renewable energy and energy efficiency appears to be simple, i.e. eliminating them by comprehensively implementing a multitude of policies, an effective and synergistic approach would need to treat each of these policy mechanisms as complementary, rather than competitors which constantly require approval from policymakers. However, no single policy mechanism is a panacea. Until comprehensive policy changes are implemented, it seems likely that renewable energy and energy efficiency will never realise their full potential.

b. Balancing economic development and social pressures with environmental protection and sustainability is a critical issue for sustainable development. Win-win opportunities – in particular the idea of green growth – need to be exploited. A reorientation of economic growth is itself a predondition of environmental protection, i.e. a win-win situation is possible. There is a technological solution to environmental problems. Done properly, renewable energy policy promotion brings net benefits in terms of jobs, reduced emission, and lower prices.

Session 3: Preventing Air Pollution and Protecting Water Resources

Presentations and discussions at this session highlighted the importance of preventing pollution of air and water, and of protecting water resources. The original session title "Protecting Air Pollution and Water Resources" did not indicate this scope. In this session, participants discussed ASEAN and EU policies on protecting air quality. The ASEAN presentation focused on challenges posed by the trans-boundary haze problem and the EU presentation discussed drivers of air quality in Europe. The former Chair of the ASEAN Working Group on Water Resource Management shared water resource management issues in ASEAN. This session provided insights into the dilemma faced by policymakers in ensuring that development activities and industrial pollution do not damage these natural resources. Community involvement and dialogue are necessary in prevention efforts.

Challenges in ASEAN Cooperation: Haze and Water Issues

Policy officials from the respective ASEAN working groups shared their perspectives on the challenges faced by the regional association in preventing or minimising recurrent bouts of trans-boundary haze pollution, and in effective management of the region's water resources. The speaker – a high-level policy official – highlighted that lack of funding, and, at times, lack of expertise, was the main obstacle for successful region-wide initiatives. This led members of ASEAN to resort to bilateral and sub-regional arrangements.

ASEAN's strategic plan on water resource management placed ownership of projects and initiatives in the hands of members. Each of the ten overarching projects under the plan had a lead coordinator, i.e. ASEAN members – individually or in pairs – took responsibility to lead a project from inception to implementation. Activities cover a range of learning forums on demand management, country strategic guidelines on integrated water resource management, river classification systems, assessing the risks and impact of floods, and awareness-raising. The four areas of concern: 1) supply, demand and allocation; 2) water quality and sanitation; 3) extreme

events; and 4) capacity-building and good governance, provide the framework for projects. Some of the ASEAN members which are riparian states of the Mekong belong to the Mekong River Commission which prioritises environment, information and knowledge management, integrated capacity building and water utilisation as strategic areas for the river basin's development. Additionally, member states are discussing the establishment of a Council of Ministers on water resource management, to address issues at the policy-making level. ASEAN members are making use of existing networking mechanisms under the Asia Pacific Water Hub to promote greater awareness of the issue. There are also steps taken to obtain greater support from politicians on water resource management issues. In 2009, the ASEAN heads of state and/or government had highlighted the importance of water resources in addressing climate change, disaster management and in addressing food and energy security.

Still, the main challenge for ASEAN is in ensuring the sustainability of, and political commitment for projects and initiatives. It is also necessary to avoid conflict of interest in implementing strategic projects. Initiatives perceived as creating uneven benefits for members would not progress. Other projects, including one on water, sanitation and hygiene (WASH) education management, could not progress due to lack of expertise. Lack of funding also hindered the implementation of projects. Activities and priorities under the Greater Mekong Sub-region (GMS) mechanism had greater success as they focused on the economic aspect of water resource management. Discussions are underway for cooperation among the three networks. Possible areas where common approaches could be identified for regional cooperation would be mainly focused on addressing the environment, climate change, hydropower and river navigation.

With regard to trans-boundary haze pollution, recurring hotspots in Indonesia caused concern for neighbouring countries in maritime Southeast Asia. There were also recent instances in mainland Southeast Asia, in areas where Myanmar, Laos and Thailand share borders.

Indonesia tends to be "blamed" for the recurrences of haze pollution, which was the topic of discussion at many ASEAN meetings on the environment. The challenge lies in controlling, suppressing or minimizing the forest fires that caused haze. Unsustainable livelihood activities including slash and burn practices by residents in the affected areas point to poverty

as one of the main causes. The affected areas are mainly peat land, vulnerable to fires and difficult to access. ASEAN had developed a peat land management strategy to support management of peat lands in the region over the period 2006-2020, and is currently implementing a project in Indonesia on the rehabilitation and sustainable use of forests. This is complementary to Indonesia's peat land policy which also prioritises rehabilitation and sustainable use. ASEAN cooperation has helped produce joint emergency response criteria and guidelines, and a task force that can be activated when haze occurs. The ASEAN ministerial, senior official and working group meetings on the environment try to use constructive approaches to find common solutions. Under the ASEAN umbrella, bilateral projects were also carried out (between Indonesia, Singapore and Malaysia) for focused assistance on capacity-building and industry development in the affected areas.

Air Quality in Europe

The presentation focused on whether EU policies on air quality protection were effective in protecting and managing air quality, especially in the present situation of rising global emissions. Throughout his presentation, the speaker emphasised the need for action at regional and global levels. Greater collaboration across regions and countries would help avoid costly mistakes. Strong leadership is most effective to produce tangible results for air quality management. This requires political leaders to match their actions to words.

Looking at the EU experience, there had been progress and results in addressing air pollution but the EU Commissioner for Environment noted in 2007 that the state of the environment was worsening despite the existing Environment Action Programme (EAP) framework. The 6th EAP, which has a time frame till 2012, aims to achieve "levels of air quality that do not result in unacceptable impacts on, and risks to, people and the environment." However, risks and impacts are poorly defined, posing a challenge for future programmes. Other challenges are integrating climate, energy and environment policies; and assisting local governments to act on or respond to climate mitigation requirements. Currently, population growth around the world seemed to be outstripping technological mitigation capacities. In 2008, more than half of the world's population were living in cities. By 2030, this would increase to almost 5 billion, with most of urban growth

occurring in Asia and Africa, mainly in small towns and cities which have fewer resources to respond to the magnitude of change. The EU is now experiencing this phenomenon, as more and more of the urban population (70% of EU's population live in cities) are leaving major urban areas to avoid polluted air in cities. Studies have shown that ambient air pollution is one of the main causes of adverse human health outcomes and reduced life expectancy.

The challenge for every country, whether developed or developing, is how to balance growth with air quality management. There are five energy-related sectors[1] responsible for more than half of the all the EU's 27 key category emissions of nitrogen oxide (NOX), carbon monoxide (CO), non-methane volatile organic compounds (NMVOCs), sulphur oxide (SOX), ammonia (NH3), and particulate matters PM10 and PM2.5. Among these, the construction industry is attracting interest as an area where mitigation and growth could be undertaken in tandem. Emissions of 2 key air pollutants – particulate matter and ground level ozone – had dropped since 1997, but air quality had not improved in most towns since the late 1990s. Researchers are now finding that much of reporting on improvements in air pollution is a result of measurement artefact rather than being representative of the real situation. The challenge is to reconcile air pollution measurement and reporting. Resource constraints dictate that many countries make the expedient choice of doing the minimum required. Global actions and partnerships are necessary – particularly for smaller European countries such as Denmark. For example, the Pan-European programmes should collaborate more with Asian counterparts, especially with European areas of the Arctic seeing signatures from the trans-boundary haze in Asia. Other recommendations include reducing the short-and long-lived greenhouse gases (e.g. long, CO2 and short, ozone) to improve air quality; and reviewing ozone generation impacts and reworking impact strategies. More effort is necessary if mitigation targets are to be met, even by the standards of European countries such as Denmark and Sweden which are leading current efforts.

[1] Manufacturing industries and construction, stationary plants, passenger vehicles, heavy duty road vehicles, and power plants.

Options for Change

Mr Tony Long offered some options for policymakers to address public policy failures in dealing with public health and climate issues, and in tackling the cost of negative externalities.

The first option would be to develop and/or agree on standardizing the measurement of the environment. A positive step in this direction is that the United Nations' Integrated Environmental and Economic Accounting system (referred to as SEEA) Handbook is due to be elevated to an international statistical standard by 2012. Relevant to the session discussions are the System of Environmental and Economic Accounting for Water and the System of Environmental and Economic Accounting for Energy. With these systems providing the international statistical standard on integrated water resource management, and energy and air emission issues, regional cooperation in ASEAN and EU would be able to move beyond anecdotal accounting to a system of measurement where the costs to sustainable development would be more transparent. Additionally, the October 2009 launch of the Report by the Commission on the Measurement of Economic Performance and Social Progress (chaired by Professors Stiglitz, Sen and Fitoussi) informs policymakers, academia and civil society of the importance of developing statistics and indicators that focus on broader measures of social well-being, to enable better assessment of the problems facing society today and facilitate informed decision-making.

The second option lies in the move made by the Organisation for Economic Cooperation and Development (OECD) towards promoting "eco-innovation" in responding to emerging challenges (climate change, scarcity of natural resources, energy) and their impact on economies. The OECD discussions on changes in economic measurement addressing growing concerns about climate change, energy security and protecting natural resources provide an impetus for governments of developed to pursue environmentally-friendly innovation and transfer environmentally-friendly technologies to developing countries.

Thirdly, the environmental discourse is now being joined by economists and politicians at different levels. This shows the importance of recognizing the global ecological deficit and the tough choices decision-makers now face in balancing economic growth with social well-being. The challenges posed by climate change necessitate radical transitions to sustainable industries

and resources efficiency. To meet the greenhouse gas emission reductions of a Factor 4 or 10 require major technological changes as well as societal change.

Conclusion

Some of the lessons that might be drawn from the experience of air quality and water resources management policies in EU and ASEAN are summarised below:

a. Political and economic considerations affect environmental policies and outcomes. Environmental challenges are now emerging as key drivers for political change. While economic growth and development generate many environmental problems, they also provide a political impetus for policy decisions. Policies and incentives should ensure sustainable and environmentally sound development. A holistic planning approach should aim to harmonise the economic, ecological and institutional factors related to development.

b. Dealing with externalities – such as trans-boundary haze pollution and water resource issues – which extend beyond the boundaries of governments' jurisdictions require regional/international collaboration. However, initiatives need stakeholder participation and should avoid being too "donor-driven."

c. Standardised indicators and measurement systems are important, but their implementation requires capacity and infrastructure (equipment) investments. This poses a challenge to many developing countries.

Session 4: Protecting Biodiversity

Speakers at this session attempted to assess available options for policymakers and practitioners alike, in trying to halt biodiversity loss, as the international community had failed to meet targets set for 2010 as the International Year of Biodiversity and the target year for achieving goals to halt biodiversity loss. The scale of biodiversity and the threats posed to it, and the important links to the economy and human health present a compelling argument that biodiversity is a mainstream issue that challenges governments to take action.

Challenges and Lessons in Managing Biodiversity in ASEAN

In sharing the profile of ASEAN's biodiversity resources, the ASEAN speaker noted the first challenge for ASEAN is in understanding what biodiversity means. To share a common understanding, ASEAN uses the definition contained in the Convention on Biological Diversity (CBD). Southeast Asia's natural assets are considerable. About 18-20% (approx. 8600) of 47,589 plant and animal species assessed by the International Union for the Conservation of Nature (IUCN) are native to the ASEAN region, which occupies only about 3% of the world's total land space. ASEAN's coastline is renowned as a centre of tropical marine biodiversity, including the "coral triangle" between Indonesia, Malaysia and the Philippines, home to 75% of the world's corals. ASEAN countries rank high in the list of countries rich in biodiversity resources. With regard to its economic contribution, biodiversity resources are the base of export products such as agricultural and clothing products and chemicals. These are exported to Europe, contributing to the GDP of the ASEAN countries exporting the products.

ASEAN's biodiversity is under tremendous pressure from the region's drive for development. As biodiversity resources transcend borders, they are under threat of extinction from poaching, deforestation, forest fires, and water resource management. There are about 2500 animal species critically endangered due to habitat loss and illegal trade in wildlife. The ASEAN Wildlife Enforcement Network estimates that the illegal wildlife trade in the region is valued at US$10-20 billion. ASEAN has four of the world's 34

recognized biodiversity hotspots. The consequences of deforestation, forest fires, unsustainable land use practices (shifting cultivation) and agricultural expansion as a result of urbanization have lost the region valuable forest cover and habitat. The rate of deforestation in the region averages 1.11% per year (compared to the global average of 0.16% per year), which could lead to loss of about three quarters of the region's forests, and up to 42% of biodiversity in the region by 2011, if left unchecked. An estimated 80% of ASEAN's coral reefs are at risk, facing various levels of threat, due to climate change among other factors. The ASEAN region is especially vulnerable to climate change as a large proportion of its population live along coastlines. Another driver of biodiversity loss is the "invasive alien species (IAS)," which has economic and environmental implications. The situation is exacerbated by weak capacity in legislation and enforcement.

ASEAN countries have responded to these challenges individually and collectively. Under the ASEAN umbrella, countries started addressing nature conservation issues two decades ago. All ASEAN member states are signatory to the CBD. Programme The ASEAN Heritage Parks programme has designated 28 areas as heritage parks, and 1300 protected areas following IUCN standards. ASEAN has also committed to establishing more marine protected areas in member countries such as the Philippines, Indonesia, Malaysia, Vietnam and Thailand. The ASCC blueprint also identifies key areas of commitment for ASEAN to reduce biodiversity loss (by 2010). However, ASEAN is not yet able to address access and fair and equitable sharing of resources.

Integrating biodiversity in national and sectoral plans is ongoing, with countries such as Singapore and Thailand leading the efforts. The ASEAN Centre for Biodiversity – focused exclusively to assist ASEAN members in their biodiversity conservation efforts – resulted from a collaborative programme undertaken by ASEAN and the EU; ASEAN members have taken responsibility for its sustainability. Challenges and needs remain, however, including more aggressive public awareness campaigns (highlighting the link between biodiversity and health issues), greater interface between policy and science.

The European Experience in Protecting Biodiversity Resources

The European experience showed that EU and ASEAN face common threats to biodiversity and thus share common challenges in protecting biodiversity loss, highlighting the relationship between biodiversity and survivability, and the magnitude of moral and, ethical and practical issues. It is important to change behaviours and mindsets in order to halt biodiversity loss and reverse the risks. According to the Millennium Ecosystem Assessment, the rates of change in biodiversity loss – if continued without restraint – would result in irreversible damage. It is becoming more apparent that biodiversity at multiple scales underpins ecosystem health and resilience, and that fragmentation of the ecosystems is undermining this resilience. A new discourse recognises the importance of ecosystem services provided by biodiversity (including climate regulation, clean water, pollination, education, cultural heritage and natural beauty, etc.). The role of civil society is valuable in monitoring and reporting realities and is essential to the reform process.

Similar to ASEAN, the EU heads of state/government had stated in 2001 their commitment to halt biodiversity loss by 2010. While there is some progress – such as sustainable management of intact areas of biodiversity, species recovery, more protected areas – the majority of habitat (80%) and species (50%) in Europe remain in "unfavourable" conservation status. Europe's ecosystems have undergone the most human-induced fragmentation of all continents, due to urbanisation and intensive land use, resulting in less resilience to biodiversity loss. The 1998, EU biodiversity strategy may provide some parallel with ASEAN's decision-making process. The principle of subsidiarity in this strategy – albeit a negotiable concept – is important, as subsidiarities at all levels often lead to agreements for action at the lowest appropriate administrative level. In addition to the 1998 strategy, the EU had some protective legislations for site protection, water quality, and marine resources, and a Forest Action Plan. The EU's biodiversity action plan launched in 2006 has 10 objectives and 4 supporting measures, providing for the beginning of a biodiversity monitoring system. A review of the plan in 2007-08 concluded that greater policy/action integration (especially in agriculture and fishery sectors) and more funding are required. Four of the action plan's objectives were most relevant to ASEAN cooperation - reducing damage to tropical forests, reducing ecosystem degradation and

deforestation (REDD+ initiative), illegal logging, and the problem of palm oil.

Lessons from Europe's experience in biodiversity policy-making have also illustrated the importance of political will in setting targets and support in implementing mandatory measures. In doing so, governments should also include all stakeholders and communicate effectively to their citizens the importance of biodiversity and ecosystem health. Communication and cross-sectoral coordination are essential in highlighting the urgency of the threats posed by biodiversity loss. The scale of human dependence on biodiversity is not always appreciated fully by policymakers and stakeholders. Recommendations for ASEAN's attention highlight the importance of recognising the importance of ecosystems services, and documenting and valuing natural capital as part of economic policy. While making the economic case for protection and recovery of ecosystems is necessary, it is a difficult step for governments, as it could be politically unpopular. Governments should change their mindsets towards understanding ecosystems services as benefits rather than costs. This would lead to new paradigms of policymaking. Ultimately, countries cannot reach solutions alone; transboundary partnerships will facilitate the process of reform in halting biodiversity loss.

Biodiversity Beyond Conservation

Dato Zakri Hamid and Dr Ashok Swain offered their perspective on a range of issues for the organizers to consider in helping bring about change in current (economic) decision-making.

With reference to the three pillars of the ASEAN Community, biodiversity conservation was seen as "political in sense, economic in structure and socio-cultural in spirit." Efforts to sensitise ASEAN leaders on biodiversity conservation priorities would thus need to refer to the balance struck at the 1992 Rio Earth Summit between the concerns of the North and South groupings of countries. As the CBD's third key objective emphasizes access and benefit-sharing, the potential case for EU and ASEAN collaboration in the biodiversity effort could be in bridging the technology and gene gaps. EU and ASEAN could also undertake studies on the benefits of ecosystem services, and developing monitoring systems/indicators.

One challenge to advocating ecosystems services and their valuation to ASEAN governments would be in overcoming the sensitivities of some ASEAN members had over production of commodities such as palm oil, which is seen as crucial to the livelihoods of people (and therefore poverty alleviation) in the region. The poverty issue is a serious issue for Asia/ASEAN, and unless this is successfully addressed the broader concerns of biodiversity protection may not receive policymakers' attention. Ultimately, for mindset change to happen, biodiversity concerns must be taken beyond the ambit of environment ministries/agencies and integrated into strategies related to the production sectors (e.g. agriculture, fisheries, forestry, mining, tourism). Southeast Asia would also need to look at the European experience and lessons learned on communicating with and involving the public in decision-making. As regards trans-boundary and -regional cooperation, both EU and ASEAN would need to develop mutual trust and appreciation for collaboration to be effective. Partnerships would have to be equal.

Conclusion

Some of the lessons that might be drawn from the discussions on the respective experiences of ASEAN and EU in addressing biodiversity conservation are summarised below:

a. ASEAN-EU collaboration needs to be expanded to involve policy, business and academic communities and foster better understanding among these communities.

b. More research and collaboration is necessary to promote greater public awareness – especially youth – on issues of biodiversity losses and the value of ecosystem services. Otherwise, media sensationalisation of the topic tends to lead to tensions among communities. Research is also necessary to establish baseline data for biodiversity reduction targets. ASEAN is still struggling with the need for data.

c. Target-setting should be accompanied by enabling mechanisms including financial support for (regional) initiatives to take off. Funding availability varies with donor attention to the issues. Target-setting also varies based on each

country's capacity to undertake the task. ASEAN members use the "pragmatic" approach of identifying partners whose strengths and interests can support ASEAN priorities. Innovative collaboration activities could consider the establishment of peace parks (following the Korean example) or science parks to lessen tensions between countries with competing interests.

d. ASEAN and EU have different capacities to enforce directives at the regional level. At present, the EU is the only regional association that possesses enforcement capacity.

e. While the link between environment and trade is widely known, trade negotiations have yet to embrace environment concerns (at both regional and national levels).

f. Heads of state/government of ASEAN and EU discuss biodiversity infrequently. Every opportunity should be exploited as much as possible to discuss biodiversity at high-level regional meetings.

Session 5: Regional Environmental Cooperation

Presentations and discussions at this session highlighted that the two regions share common problems and challenges on regional environmental cooperation, but solutions taken by each are different.

Cooperation in the EU

Speaking on the EU's experience in conducting and coordinating regional environmental cooperation, the presenter focused on environment protection and the funding aspects of regional cooperation through the European Regional Policy. It is interesting to see some similarities between the policy and budget framework for regional cooperation in Europe and ASEAN. The European programme's main purpose in the past was to bridge economic and social disparities in the EU and thus focused on major infrastructure; however, cross-cutting issues like environmental protection, climate change, eco-innovation and green jobs are now increasingly being integrated into programmes and activities. The EU has a small but strategic budget around 135 billion Euro per year, mainly generated by contributions from member states' GNP. The EU's Solidarity Principle balances the contributions of each member based on their "well-being"; those more in need of integration assistance receive larger shares of aid. However, national interests still tend to dominate in spending this budget on projects and programmes. Two key policy fields are responsible for more than 80% of the budget: the EU Common Agriculture Policy and the EU Regional Policy. The Regional Policy has the potential to promote greater cooperation in the field of environmental protection. Currently, about 30% of the Policy is spent on addressing environmental issues. However, this does not always directly benefit the environment as activities tend to focus on restricted solutions in rail transport or technical risk prevention measures, i.e. infrastructure rather than ecological restoration. The predominant focus on transport infrastructure causes conflicts with environment legislation. Support to business does not adequately consider aspects of reducing climate change impacts and more efficient resource utilisation. Still, there is general importance placed on increasing spending for energy, water and biodiversity issues, and there is

growing recognition of the need to invest in environmental protection and the need to integrate economy and the environment.

Water is the traditional approach to Europe's environmental funding, addressing deficits in waste water treatment and drinking water solutions. Energy is a key priority for the EU but investments in this area are not sufficient, particularly for developing renewable sources of energy. Biodiversity has proven the most challenging so far, under the economy-driven approach of the Regional Policy. However, there is now a move towards maintaining ecosystem services as the basis for economic development. Providing the framework are the EU's Directives on birds and the fauna, flora and habitat, under which a common network of protected areas will be established, supplementing the national systems of protected areas. As the EU provides financial support for implementing the common network, and member states are developing priority actions and measures for regional funding assistance. Environmental organizations are also becoming more and more engaged in implementation of these activities. Additionally, an environmental education centre has been established in Berlin, linking biodiversity concerns and environmental education. Cross-border cooperation among member states is an emerging good practice; a positive example is the cross-border waste water treatment in Guben/Gubin at the German-Polish border. More cross-border cooperation activities are being implemented, allowing for joint development of approaches to environmental protection, including cross-border management of protected areas or the valuation of ecosystems services.

Recommendations for improvements in regional cooperation include improving administrative capacity to address new, emerging environmental challenges linked to developing a green economy; creating stronger partnerships between local stakeholders and public bodies in the region; and providing more transparent funding instruments with well-organised project selection procedures.

Cooperation in ASEAN

The ASEAN speaker focused his presentation on the ASEAN Environment Management Framework and the challenges faced in implementing priorities for environmental protection in the region as well as monitoring progress. ASEAN's challenges are in some ways similar to those faced by the EU,

in terms of policy priorities, funding constraints and attention paid integrating environment and economy. Still, it is encouraging that implementation challenges may now see positive developments by the recent move of ASEAN towards a more rules-based organization. With the entry into force of the ASEAN Charter on December 15, 2008, ASEAN now has a legal personality. Under the Charter, a number of new institutions have also been created for more efficiency in coordinating work and implementation of priorities across sectors. ASEAN now has 2 annual working summits where leaders want to see substantive progress in regional cooperation. Thus, in ASEAN, there is more self-awareness and interest on regional cooperation.

ASEAN is working towards the accomplishment of a single ASEAN Community by 2015. This would integrate priorities for political-security, economic and socio-cultural issues. ASEAN has developed blueprints for each of the three community pillars. Environmental cooperation is listed under the ASEAN Socio-Cultural Community Blueprint, which has an eclectic list of issues. There is a strategic objective for each area, followed by "actions," which are a combination of programmes and projects. Actions in the blueprint are not general statements. Environment priorities are also embedded in priority areas of the ASEAN Economic Community Blueprint, such as agriculture and energy. The Blueprints are a monitoring mechanism as progress has to be reported regularly to the ASEAN heads of state/government at the annual Summits, and provide the basis for coordinating work across sectors under each Community. The Community Councils coordinate work under each community pillar. While work is more straightforward for the political-security and economic pillars, it is a challenge for the socio-cultural pillar as there are many sectors of cooperation competing for attention and funding.

In terms of achievements for ASEAN cooperation in the environment over the past three decades, it is noteworthy that cooperation on the environment is now an independent sector of cooperation, as it started first as an expert group under the ASEAN Committee on Science and Technology. In addition to monitoring progress of work by the various committees and working groups (in the ten areas) under ASEAN environmental cooperation, the environmental management framework also monitored environment-related provisions of ASEAN legal instruments in many sectors of cooperation. ASEAN has put into place enabling mechanisms – including

those related to access and benefit-sharing – in these legal instruments. The regular preparation of the ASEAN State of the Environment Report serves as the overall monitoring mechanism on environmental protection in the region. The most recent Report has the theme of "Green ASEAN", looking ahead to greening the ASEAN economy. Availability of consistent and reliable data is an ongoing challenge. One advantage of specific and binding agreements on environmental issues (such as haze pollution) is that implementation is ensured and monitored. Enabling mechanisms are included as much as possible to encourage implementation and cooperation among the member states. However, there are still difficulties in areas where private sector involvement is required, e.g. environmentally sound technologies. It is a challenge to set (national and regional) standards for water quality and other environmental priorities. Capacity-building, establishing baselines and harmonising practices are pivotal in ensuring implementation of such priorities.

The ten working groups with separate action plans provide a wide range of initiatives to address different facets and dimensions of environmental protection work in ASEAN. While many national-level activities may not be adequately captured under the regional framework, it is necessary for regional cooperation priorities to take into account and complement national priorities. It is also noteworthy that ASEAN's partners – such as the EU – recognise the importance of supporting ASEAN initiatives through collaboration and knowledge transfer. While funding is an important consideration, ASEAN can also benefit from EU's knowledge and experience in pursuing regional environmental cooperation.

Overcoming Limitations to Regional Cooperation and Implementation

Dr Niklas Swanström and Mr Rodolfo Severino added their perspectives on how the two regions could learn from each other's experience in addressing implementation challenges and the lack of awareness by the larger public despite the substantive work being carried out on the issue.

For Dr Swanström, the challenges in implementing environment priorities in either EU or ASEAN show the greatest limitations to achieving goals and targets. Both EU and ASEAN have legislation and/or binding agreements requiring compliance by members. However, initiatives and

programs are not widely known; this can be seen as failure in implementation. The limitations to regional cooperation and national engagement exist both in institutions – which are resource dependent – and governments. Questions to be addressed (in future similar fora) are: whether introducing market forces into the discourse would assist in strengthening regional cooperation; encouraging more constructive interaction with NGOs and civil society; and assessing commitment (at all levels) to environment priorities.

It could be argued that the ASEAN process has a greater impact in bringing about results rather than the legalistic approach taken by the EU. It is also interesting to analyse how the EU engages in Southeast Asia. Successful engagement is dependent on taking up difficult challenges (such as engaging Myanmar) rather than taking up initiatives with Southeast Asian countries that are "easier to manage" or "guaranteed to succeed". Scepticism remains on how successful intergovernmental collaboration can be for regional cooperation, even though governments and regional organizations are essential for the process.

Mr Severino highlighted two points that conference discussions had not touched upon in detail. The first is that the new approach ASEAN is taking towards the regional integration. With the Cold War ended, ASEAN made a tremendous effort to bring all the Southeast Asian countries into the ASEAN fold. This raised concerns about a possible two-tier ASEAN between the more advanced ASEAN-6 and the newer ASEAN-4 or CLMV group (Cambodia, Laos, Myanmar, Vietnam). There are also concerns also that integration of the CLMV could slow down on the region's economic development, as these countries required considerable support in terms of infrastructure, human resource development, and policy reforms. Nevertheless, all ASEAN governments recognise the importance of building capacity in the new member countries to advance their own development, which in turn support regional integration. The integration process in ASEAN is carried out under the Initiative for ASEAN Integration (IAI), since 2001 under a work programme. A review of the IAI work programme in 2005 found a lack of coordination among the recipients and donors which include the older ASEAN members, Dialogue Partners, other donors and institutions. Additionally, the work programme did not connect strategic concerns, and the CLMV countries did not have a sense of ownership in the assistance being

given. The 2nd IAI workplan, aiming to address these gaps, was included in the adoption of the ASEAN community blueprints in 2007. However, it still fails to address the comprehensive notion of development, i.e. coordinating or synergising national and regional priorities. Additionally, ASEAN is still weak in post facto assessment of programmes and projects. Learning from this, ASEAN has adopted a new country-focused approach to ensure implementation of projects and develop a coordinated approach to projects that each country prioritises as most important for its development. A pilot initiative is beginning in Laos, addressing the issue of environmental protection and environmental concerns (sustainable development).

Secondly, the ASEAN Studies Centre and the Centre for Liveable Cities of Singapore are collaborating on urbanisation issues in Southeast Asia. This is an issue that current discussions did not address in detail, but mention has been made of environmentally sustainable cities and management of urban environments in ASEAN. Ensuring that cities are environmentally sustainable is important of Southeast Asia lives in urbanised areas. Cities as drivers of economic growth are a prerequisite for economic development, but the negative social externalities of urbanisation justifies an appeal that cities and their impact on the environment should not be forgotten in future discussions on environment protection.

Conclusion

Some of the lessons that may be drawn from the discussions on the challenges ASEAN and EU both face in implementing regional cooperation measures on environmental protection are summarised below:

a. Joint development of monitoring standards, manuals, and guidelines will provide opportunities for mutually beneficial collaboration among member states of a regional organisation.

b. Enabling environments for implementation encourages more members to participate and collaborate in joint research/study.

c. In ASEAN, government "support" for a programme does not necessarily translate into financial support; rather it is about

facilitating the garnering of business interest in ASEAN programmes and helping to promote awareness.

d. Monitoring progress of implementation is complex; some members of ASEAN have not yet ratified regional instruments but are implementing some of the measures contained in these instruments.

e. Funding available for regional programmes is less than what is available under bilateral or other arrangements. Implementation of important national targets should not be delayed due to perceived lack of funds (from regional sources).

f. Future (follow-up) conferences may consider exploring i) the notion of citizenship and regional identity in modern, transparent governance arrangements; ii) the role of business in supporting regional collaboration initiatives on the environment; iii) urban biodiversity; iv) balancing economic growth with the environment; and v) resource constraints of implementing priorities worked out on paper.

Overall Conclusions

In general, the Conference ended on a positive note with all participants expressing an interest to continue discussions in follow-up conferences, especially on topics that were not addressed at this conference. Some of the ideas discussed in Singapore highlight the following:

a. Environmental policy in Europe is a relatively recent phenomenon. Furthermore, the EU has also had to deal with enlargement to a total of 27 member states and policy towards other prospective members, and the challenge of ensuring that new member states – mostly with poor environment records – move rapidly to increased levels of environmental protection in line with EU standards.

b. While obvious differences exist between Europe and Southeast Asia in terms of climate, geography, and also level of economic development, Europe also faces serious environmental challenges.

c. Environmental policies are useful to companies because they help create a level playing field.

d. There is recognition of the environment as a non-traditional security issue by entities in the ASEAN region; the ASEAN political security community blueprint considers environmental implications.

e. Despite more than three decades of work, there is still a relative lack of experience in ASEAN on environmental protection.

f. Obstacles in implementing environmental protection and cooperation pertain to capacity restraints and vested interests.

g. Opening data on renewable energy and the large number of stakeholders who wish to obtain certification on sustainability of biofuels.

h. Participants are reminded of the important concept that "action speaks louder than words."

i. The welcome move – especially in the UN – towards the change in composition of national accounts and the concept of prosperity without growth (valuing national assets).

j. The proposition that the poor suffer most from degradation of biodiversity.

k. Economic systems should represent not just costs but also benefits.

l. The importance of mindset change and greater engagement/involvement of civil society.

m. Linkages between diversity and survivability.

n. Biodiversity and other issues pertaining to environment need to be extended to sectors beyond environment; poverty should be part of the discussions.

o. The question of what works best, the non-legalistic ASEAN Way or the legalistic EU Way?