## **A GREEN FUTURE**

## **Asia and Europe Growing Sustainably**

## **Summary of Proceedings**

Asia-Europe Environment Forum
Conference 2010



Munich, Germany 1 - 3 September 2010

# ASIA-EUROPE ENVIRONMENT FORUM 2010 CONFERENCE

## A Green Future: Asia and Europe Growing Sustainably

**Summary of Proceedings** 

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## PREFACE: THE ENVFORUM CONFERENCE

The ENVforum 2010 Conference took a multi-sectoral approach to the topic of sustainable management of natural resources. It incorporated issues like the green economy, biodiversity and ecosystem services, and environmental governance perspectives, in order to investigate current paths of development and their sustainability. This allowed the identification of gaps in current development trends and the formulation of approaches for a sustainable future.

Twelve workshops jointly hosted by partner organisations in Asia and Europe were held. Approximately 150 experts in the areas of sustainability, development, and the environment from ASEM¹ countries attended the conference, representing government, civil society, and business.

The conference aimed to incentivise countries in the two regions to intensify policy dialogue across local, national, regional, and bi-regional levels. This included a focus on environmental education in sustainable development and effective approaches and tools for participatory environmental decision making.

"The ENVforum bi-regional talk should be the inspiration towards achieving global consensus and efforts [for] a sustainable and green future," remarked Prof. Rachmat Witoelar, the President's Special Envoy for Climate Change, Republic of Indonesia, during his keynote address. "[This is a platform for] lessons learned in developed countries during their development process, to be translated into a better development strategy and pathway for developing countries."

ASEM now brings together 48 partners, namely (Australia, Austria, Belgium, Brunei Darussalam, Bulgaria, Cambodia, China, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Indonesia, India, Ireland, Italy, Japan, Korea, Laos, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mongolia, Myanmar, the Netherlands, New Zealand, Pakistan, the Philippines, Poland, Portugal, Romania, Russia, Singapore, Slovakia, Slovenia, Spain, Sweden, Thailand, United Kingdom, Vietnam including the European Commission and the ASEAN Secretariat. (www.aseminfoboard.org)

Prof. Klaus Toepfer, former Executive Director of the United Nations Environment Programme (UNEP), highlighted the timeliness of the conference in developing policy recommendations on the green economy and environmental governance for Asia and Europe, as the world gears up toward the Rio+20 Earth Summit in 2012 and leaves behind its "black past." More specifically, Mr. Surendra Shrestha, UNEP's Director of Strategic Resource Mobilization/Special Initiatives, highlighted how the ENVforum can serve as a platform for a more articulate Asia-Europe voice in Rio.

Dr. Markus Soeder, the Bavarian State Minister for Environment and Health captured the spirit of the conference and the important role of environment ministries by likening them to "the Ministries of Life," as Asian and European countries contemplate their respective pathways to sustainable development going forward.

The ideas from the ENVforum 2010 Conference will be further developed into an "Asia-Europe Contribution" to be presented at the Rio+20 Earth Summit in 2012.

In the 'International Year of Biodiversity,' the participants urged the governments of both regions to encourage more exchanges and cooperation in order to promote general awareness of the topic and to promote technical cooperation in the field of ecosystems and biodiversity.

The integration of these issues into other policies and practices is vital, not least in the development of effective strategies to combat global poverty.

Twelve workshops provided recommendations in the areas of green economy, environmental governance, education for sustainable development and biodiversity.

#### **ABOUT THE ENVforum**

The ENVforum is a flagship project of the Asia-Europe Foundation (ASEF) in partnership with the Hanns Seidel Foundation, the Institute for Global Environmental Strategies (IGES-Japan), the Swedish Environmental Secretariat for Asia (SENSA) and the United Nations Environment Programme (UNEP).

ASEF has been actively involved in promoting dialogue on environmental issues between Asia and Europe since 2003.

The Asia-Europe Foundation (ASEF) promotes greater mutual understanding between Asia and Europe through intellectual, cultural and people-to-people exchanges. Through ASEF, civil society concerns are included as a vital component of deliberations of the ASEM.

ASEF was established in February 1997 by the participating governments of ASEM and has since implemented over 450 projects, engaging over 15,000 direct participants as well as reaching out to a much wider audience in Asia and Europe. www.asef.org

# SPECIAL FOREWORD THE QUEST FOR SUSTAINABLE DEVELOPMENT IN THE FACE OF CLIMATE CHANGE THREATS

Excellencies, distinguished audience, ladies and gentlemen,

It is a great honour and extreme pleasure for me, to share with you, my views on the subject of this auspicious ENVFORUM 2010 CONFERENCE: "A Green Future: Asia and Europe Growing Sustainably."

Before I proceed any further, allow me to congratulate you and in particular our organisers for holding this conference and our hosts for hosting us in this splendid and beautiful city of Munich - which certainly will inspire all of us to maintain the balance of economic development, social cohesiveness, and environmental concerns, known as sustainable development.

On this occasion, I congratulate the Asia-Europe Foundation and the Hanns Seidel Foundation for hosting this very important and timely conference, because at present the world is facing a multitude of crises that have been building up over the last two decades.

#### Sustainability - our common concern

Ladies and Gentlemen.

The subject of sustainability – an issue related both to development and environmental concerns – certainly is of paramount concern between Asian and European countries. At present, countries in both regions have transformed themselves towards achieving a better quality of life, which in most cases has been measured only in economic terms.

The current "business as usual" development strategies should seriously be reconsidered in response to the threats of climate change that are increasingly taking place. The early stages of development in Europe and more recent development in most Asian countries have relied heavily on the exploitation of natural resources.

Mining has been the main way to get resources to power development, in both regions and in the rest of the world. It is clear evidence that we have been, and are still heavily reliant on fossil-based energy.

Forests have been exploited and deforested both for supplying food through agricultural activities as they have been exploited for settlements and other economic activities. An increasing population in Europe some decades ago, which has been the case for Asia over the last few decades, has increased the need for development both in physical-regional as well as socio-economic terms, which has put more pressure on nature and the environment. All of these issues have created a great dilemma which needs to be addressed in a just manner.

One such solution is the quest for a sustainable mode of development, also known as 'sustainable development' as the paradigm that encourages growth in development whilst maintaining the health of the environment. I am extremely happy that this conference appropriately carries the theme of "Green Future: Asia and Europe Growing Sustainably." This shows that we are on the same page in approaching the future.

Nowadays, sustainable development is accepted as a key cross-cutting theme across all disciplines that must be addressed responsibly, thoroughly and consistently.

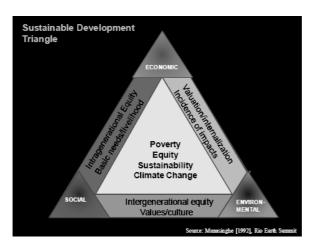
The big question is: What else needs to be done?

The simple answer is: Concrete actions to translate this new paradigm into reality.

The big problem is that the world is still waiting for the world's governments to convert this simple answer into real concrete actions.

The ways by which we met human needs in the past, have caused environmental degradation (including global warming and climate change), which in turn has undermined our ability to meet present and future needs. Primary drivers underlying the alternative development paths are similar to those of the anthropogenic climate change, including economic growth, broad technological changes, lifestyle patterns, demographic shifts such as age structure, and migration, as well as governance structures.

Sustainable development is linked to and affects the environment. This concept has been with us since the advent the Brundlandt Report in Rio that still awaits consistent and comprehensive implementation by the world's governments. Thus, there are synergistic opportunities to meet human needs more sustainably, by adopting integrated sustainable development policies that enhance the effectiveness of any response option.



Adopting sustainable development practices which embrace the prevention principle will avoid potential losses as a direct impact of environmental damages.

At this juncture, it would be appropriate to mention, that this 'green paradigm shift' would benefit not only the future health of the planet, but concurrently

increase and enlarge more developments in industry, agriculture, trade and other relevant aspects.

This is one important reason why this conference is a perfect forum to spawn ideas for more 'green enlightened' industries and ways and means of human sustenance, and even more importantly, to join our hands between East and West to face the future together. The West has the technological capacity whilst the East can contribute its traditional wisdom in approaching development problems.

#### Bi-regional concerns, global concerted efforts

Ladies and gentlemen, distinguished audience,

The organisers of this forum have put their concerns into the Terms of Reference and I quote, "Using the lenses of a green economy, biodiversity and ecosystem services and environmental governance, the conference will take a multi sectoral view of the sustainable management of natural resources. It aims to provide insights to the current path of development versus its sustainability in order to fill the gaps of current development trends and contribute towards

a sustainable future." Furthermore it states that, "The significance of regional and multilateral initiatives, both within the political community as well as civil society organisations, will also be discussed. Moreover, the conference aims to incentivise countries in the two regions to intensify policy dialogue across local, national, regional and bi-regional levels."

Today we are witnessing a multitude of crises. The financial crisis, the unending wars in the Middle East, waves of terrorism, continuous natural disasters, and last but not least, catastrophes induced by the climate crisis. We do understand that currently climate change is the biggest threat we face which affects many aspects of nature and human living. The impact of climate change has also been worsened by the low quality of the environment as the result of obviously non-sustainable development.

Just recently, we heard news of flooding in Pakistan that killed more than 1,600 people and directly affected around 15.4 million more. As reported by the United Nations Officer for the Coordination of Humanitarian Affairs, the area being hit is prime farmland along the Indus River and at least 3.2 million hectares of crops had been destroyed as of August 18, 2010.

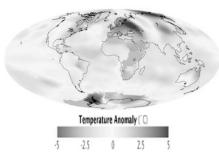
Illness could make things even worse. Cases of cholera, risk of typhoid fever and hepatitis A and E are to be expected. Many of the survivors are youngsters, who have younger siblings that they must take care of and feed without help from anyone. The youngest of the refugees wander in tears without parents. Life will never be the same again. Long-term psychological trauma is yet another threat.

In other parts of Asia, we have seen a series of floods in China due to heavy summer rains. Around 3,900 people have been killed or gone missing this year in flood-related incidents. A devastating mudslide in a remote north-western town in early August 2010 killed about 1,750 people. With more expected heavy rain and extreme weather to come, risks of flooding, mudslides and other incidents remain high. Infrastructure such as reservoirs and dikes remain at risk.

Similar incidences have also occurred in Europe. The last winter was one of the most extreme of the last few decades. Heavy snow and sub-zero temperatures led to deaths and travel chaos across Europe early this year. Victims were all over Europe due to heavy snow and icy roads, avalanches and extreme cold. Airports closed due to the heavy snow, wind and poor visibility. Similar incidences happened to train and other public transport services. In many places, the snow was more than two metres high.

The economic cost of such extreme weather was very high. One example was that trading at the London Stock Exchange (LSE) was at a third of its normal level.

Another form of extreme weather has struck Europe this summer. One of the biggest news is from Russia. This summer, the Russian Federation had to contend with multiple natural hazards. Drought hit the southern part of the country whilst fires raged in western Russia and eastern Siberia. The temperature was unusually warm and hit forty-two degrees Celsius in some parts of the country. Wildfires happened as the heat wave ignited the drained swamps and bogs surrounding Moscow.



All the above cases are evidence of global warming and climate change. The following image from NASA's Terra Satellite shows global surface temperature anomalies for July 2010 compared to average temperatures for the same time of year from 1951 to 1980.

The record for high average temperature was reached in the Northern Hemisphere during the summer of 2010. On the other hand, the nascent La Niña was moderately strong, and will probably strengthen, likely affecting temperatures throughout the remainder of 2010.

#### Global solidarity, global responsibility

Distinguished audience,

Having seen all the hazards in both regions, we have to agree that each actor in the field of development has a responsibility to prevent it from happening in the future. Governments have their role at the policy level and to plan for a more sustainable development pathway. Such a role will not have any significant impact if others do not play their roles.

The private sector has played a significant role in pursuing economic development, however, both in Europe and in Asia, it has been less aware of the impact of its activities on nature and the environment. The private sector has to internalise social and environmental costs into business and not just simply externalise them as has been done so far. By internalising these costs, a green

economy can then be developed to achieve a more sustainable and greener future. Public-private partnerships are an alternative to ensuring more effective and efficient development by sharing the responsibility in a more equitable manner.

Other actors, be it individuals, academics, community based organisations, civil society organisations and other non-government organisations will have to play a better role in paving the way for the future. Public education and awareness on sustainable development as well as climate change will be keys to ensure the active engagement of people. Better education and understanding of the issues will enable citizens to demand that their government as well as the private sector are more responsible in their activities in order to achieve the common goal of a better future.

By taking on such responsibility, we are committed to global solidarity. We all live on one Planet Earth with limited resources. Unwise and self-centred lifestyles will only lead all of us to an end sooner rather than later.

If we are wise enough, we will realise that our role is basically as a courier that has to pass on this planet from our parents to our children. We have to treat natural resources and a healthy environment as an asset to be turned over to the next generation, increased and not impaired, in value.

#### Global obstacles need a global consensus to address them

Ladies and gentlemen,

Having said all that, the Asia-Europe Foundation must have the larger picture in mind, i.e. global interests and obstacles. Apart from multilateral economic, social, and political fora, the climate change phenomenon as a global concern, is of paramount if not crucial importance.

Conferences have been held to inform, complement and make contributions to successful climate change negotiations framed under the United Nations Framework Convention on Climate Change (UNFCCC) tracks. Global attention is directed to the future Conference of Parties (COP) to reach an agreement as mandated by the Bali Roadmap.

Many countries felt that a realistic but successful outcome of COP-16 in Cancun might be a balanced package of COP decisions, which would both enable the implementation of mitigation and adaptation actions, and also internationalise key elements of the Copenhagen Accord.

Such a package should be viewed as an optimal path leading to a global legally binding solution.

The reality at present, however, shows a divergent path in the international negotiation process. Countries, represented by governments, sometimes take a certain path which might be destructive to the overall efforts in getting global consensus. We are forced to suspect that such a position is political expediency, taken to ensure support from their constituencies. We have seen clear examples in the past, and even more now, of how some countries have shown their strong position in disagreeing even on the most important elements for global agreement due to their domestic political situation.

As citizens of countries and the inhabitants of Planet Earth, we, the people, have the basic right to demand that each government act in a more cooperative way in achieving global consensus to slow down, if not reduce, climate change in the very near future. If we do not act now, it will be too late and we might find ourselves in a collapsed world. Citizens must show global solidarity and this can only be shown by demanding that each government speedily put sustainable future for future generation as a top priority.

#### Sustainable and greener future, still a long way but not impossible

Ladies and gentlemen, distinguished audience,

In closing, allow me to reiterate that it has been a privilege to present my thoughts on the new approaches in addressing the threat of a rapidly changing world, while underscoring the need for a more sustainable development. I have tried to highlight one of the gravest dangers, if not the biggest threat today, that is, the threat of climate change.

Having seen the reality at present, it is important to have bi-regional talks as we will have in this conference. However, this bi-regional talk should be the inspiration towards global consensus and efforts in achieving a sustainable and green future.

This forum is a bi-regional forum of both developed and developing countries.

Therefore, a forum like this should be more practical and concrete, and benefit the developing world through a win-win development strategy. Lessons learnt from the developed world during their development process, have to be translated into better development strategies and pathways for the developing world.

The people, citizens of countries, not only in the two regions but also globally, have the responsibility to demand that their governments be more cooperative in achieving global consensus to secure an even more sustainable and green future for the future generation.

In the rapidly changing world, climate change concerns should always be the ultimate guiding principles in development strategies of both the developed as well as the developing world. I am convinced that this forum, under the auspices of the Asia-Europe Foundation, is the best place to disseminate these ideas.

Thank you.

#### **Rachmat Witoelar**

President's Special Envoy for Climate Change Executive Chair of the National Council on Climate Change Munich, August 2010

## LIST OF ACRONYMS AND ABBREVIATIONS

e.g. exempli gratia, for example

lbid. *ibidem* (in the work cited in the immediately preceding reference)

No. *numero*, number

Op. cit. opere citato (in the work cited above)

para. paragraph

p. page

pp. pages

vs. *versus*, as opposed to

ASEF Asia-Europe Foundation

ASEM Asia-Europe Meeting

BiPRO Beratungsgesellschaft für integrierte Problemlösungen

CEDAW Convention on the Elimination of All Forms of Discrimination

Against Women

CIDA Canadian International Development Agency

CSR Corporate Social Responsibility

CSW Commission on the Status of Women

DOJ Department of Justice

DW Deutsche Welle

EC European Commission

ESCAP United Nations Economic and Social Commission for Asia and

the Pacific

EU European Union

GDP Gross Domestic Product

GTZ Deutsche Gesellschaft für Technische Zusammenarbeit

HSF Hanns Seidel Foundation

ICT Information and communications technology

IDEA International Institute for Democracy and Electoral Assistance

IGES The Institute for Global Environmental Strategies

MDG Millennium Development Goal

NGO Non-governmental organisation

REC Regional Environmental Center

SERI The Socio-Economic and Environmental Research Institute

TERI The Energy and Resources Institute

Sida-SENSA Swedish Environmental Secretariat for Asia

UNECE United Nations Economic Commission for Europe

UNEP United Nations Environment Programme

UNIDO United Nations Industrial Development Organization

UNU-CRIS United Nations University - Comparative Regional Integration

Studies

#### INTRODUCTION

The Asia Europe Environment Forum Conference "A Green Future: Asia and Europe Growing Sustainably," held in Munich, Germany, on 1-3 September 2010 was the culmination of a seven-year process of discussions and dialogue between stakeholders involved in the Asia Europe Environment Forum.

This publication presents a summary of the proceedings of this conference. It is an overview of issues relevant to both regions raised during the conference.

150 experts from environmental organisations and governments met at the beginning of September 2010 to discuss global sustainable development, climate protection and resource management.

The co-organisers of the conference were the Asia-Europe Foundation (ASEF), the Hanns Seidel Foundation (HSF-Indonesia), the Swedish Environmental Secretariat for Asia (Sida-SENSA), the Institute for Global Environmental Strategies (IGES) and the United Nations Environment Programme (UNEP).

The results of the Asia-Europe Environment Forum 2010 Conference will be presented to the governments of Asia and Europe in the form of recommendations for implementation in their respective countries. The findings will be further developed and consolidated to form the basis of the Asia-Europe contribution to the 2012 "Earth Summit" to be held in Rio de Janeiro, Brazil.

Our gratitude goes to our partner and local host, the Hanns Seidel Foundation (HSF) represented by Dr. Hans Zehetmair, Mr. Richard Asbeck, Mr. Christian Hegemer, Mr. Ulrich Klingshirn, Dr. Bernhard Seliger, Ms. Verena Sagdullaev and other colleagues. Thank you for the excellent coordination and preparation, which made it possible for us to meet at this conference.

In particular, we would like to thank Bavaria's Environment Minister, Mr. Markus Söder, former UNEP Director Prof. Klaus Töpfer, and Prof. Rachmat Witoelar, Special Envoy for Climate Change to the Indonesian President, Executive Chair, Indonesian National Council on Climate Change, for supporting our endeavour and for so graciously delivering the keynote speeches.

We would also like to thank the workshop hosts for their energy and effort as well as all the hard work involved in co-ordinating the workshops and processing the outcomes. They are:

- Asia-Europe Foundation (ASEF),
- Asia Pacific Jurist Association (member of AECEN),
- Association of Southeast Asian Nations (ASEAN) Secretariat,
- Association of Southeast Asian Nations (ASEAN) Centre for Biodiversity (ACB),
- Beratungsgesellschaft für integrierte Problemlösungen (BiPRO GmbH),
- Consumers International,
- Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ),
- Deutsche Welle (DW),
- Earth Council,
- Environmental Development Center of the Ministry of Environmental Protection of China (EDC),
- European Commission (EC),
- Groupe Energies Renouvelables Environnement et Solidarités (GERES),
- Gobitec Research Network.
- Hanns Seidel Foundation (HSF) Korea,
- Institute for Sustainable Development and Research (ISDR),
- KEHATI The Indonesian Biodiversity Foundation,
- Korean Mission to the European Union,
- Media Alliance,

- Nexus Carbon for Development,
- POSCO Research Institute (POSRI),
- Regional Environmental Center (REC),
- Swedish Environmental Secretariat for Asia (Sida-SENSA),
- United Nations Environment Programme (UNEP),
- United Nations Industrial Development Organization (UNIDO),
- United Nations University Comparative Regional Integration Studies (UNU-CRIS),
- University of Naples "Federico II",
- The Energy and Resources Institute (TERI),
- The Institute for Global Environmental Strategies (IGES),
- The Socio-Economic and Environmental Research Institute (SERI),
- The SWITCH Asia Network Facility.

We are also grateful for the tremendous support of our esteemed ENVforum partners: the Swedish Environmental Secretariat for Asia (SENSA), the Institute for Global Environmental Strategies (IGES) of Japan and the United Nations Environment Programme (UNEP).

We sincerely thank the members of the ENVforum Steering Committee for their excellent input toward the conceptualisation of this event and their valuable contribution and support during the conference. They are:

- Hanns Seidel Foundation (Indonesia Office): Dr. Ulrich Klingshirn, Director,
- Swedish Environmental Secretariat for Asia: Dr. Anders Granlund, Director,
- Institute for Global Environmental Strategies: Mr. Hideyuki Mori, Programme Managing Director, Kitakyushu Office Director,

- United Nations Environment Programme: Mr. Surendra Shrestha, Director, Strategic Resource Mobilization/Special Initiatives,
- Asian Development Bank: Dr. Nessim Ahmad, Senior Environmental Economist.
- Earth Council, Asia and the Pacific: Ms. Ella Antonio, President,
- Regional Environmental Center: Marta Bonifert, Executive Director,
- KEHATI the Indonesian Biodiversity Foundation: *Mr. Ismid Hadad, Chairman of Governing Board,*
- Association of Southeast Asian Nations Secretariat: *Mr. Raman Letchumanan, Head of Environment Unit,*
- Chinese Academy of Social Sciences: Prof. Pan Jiahua, Executive Director, Research Center for Sustainable Development,
- European Environment Agency: *Dr. David Stanners, Head of International Cooperation,*
- European Commission: Ms. Irina Lazzerini, DG Environment,
- The Energy and Resources Institute: Ms. Leena Srivastava, Executive Director.

This event would also not have been possible without the generous contribution of the European Commission and the Asian Development Bank.

We also thank all the co-organisers, including the secretariat team at the Asia-Europe Foundation for their tireless work in bringing this conference through planning to execution especially, Ms Grazyna Pulawska and Ms. Ira Martina Drupady.

#### The ENVforum Organisers

#### 1. CONFERENCE REPORT



Asia-Europe Environment Forum 2010 Conference A Green Future: Asia and Europe Growing Sustainably Munich, Germany | 1-3 September 2010

#### 1. Introduction

The Asia-Europe Environment Forum (ENVforum) 2010 Conference was held in Munich, Germany, from 1 to 3 September 2010.

The event marked the culmination of seven years of dialogue and debate on sustainable development issues between Asia-Europe Meeting (ASEM) countries since the ENVforum's inception in 2003. It attracted close to international 150 experts, representing a wide range of government and civil society stakeholder organisations in Asia and Europe.

High-level participation included that of Prof. Klaus Toepfer, former Executive Director of the United Nations Environment Programme (UNEP); Prof. Rachmat Witoelar, the President's Special Envoy on Climate Change, Republic of Indonesia; and Dr. Markus Soeder, Bavarian Minister of Environment and Public Health

Twelve workshops, jointly hosted by close to 30 partner organisations, sought to identify best practices and policy recommendations for the sustainable management of natural resources in Asia and Europe, using the lenses of the green economy and environmental governance and biodiversity.

The outcomes of the ENVforum 2010 Conference are framed in the context of actionable policy recommendations for Asian and European governments, both for implementation in their respective countries as well as collectively at the regional and bi-regional levels. They will be widely disseminated to policy makers at various relevant international fora.

The first occasion will be the 8th Summit of ASEM Heads of States and Government to be held in Brussels, Belgium in October, followed by the 10th Conference of the Parties to the Convention on Biological Diversity to be held

in Nagoya, Japan. More importantly, however, they will be further consolidated and developed to form the basis of an "Asia-Europe contribution" at the Rio+20 Earth Summit in 2012.

The ENVforum is a flagship project of the Asia-Europe Foundation (ASEF) in partnership with the Hanns Seidel Foundation (HSF-Germany), the Institute for Global Environmental Strategies (IGES-Japan), the Swedish Environmental Secretariat for Asia (SENSA) and the United Nations Environment Programme (UNEP).

ASEF's contribution was made with the financial support of the European Commission.

#### 2. Green Economy

The discussions that took place on green economy initiatives identified technology transfer, funding and the sharing of best practices of policy frameworks and regulations as areas for fruitful co-operation between Asia and Europe. It was specifically highlighted that such policy developments should also include the most vulnerable in the population.

#### a. Technology Transfer

Fund feasibility studies for large-scale CSPs in Northeast Asian countries.

The generation of concentrated solar power (CSP) through large-scale plants in desert areas promises to contribute in an important way toward the provision of clean, cheap and inexhaustible energy in the future. However, successful application of CSP technologies on a large scale, such as the well-known DESERTEC initiative, requires extensive policy co-ordination and institutionalisation of energy policy.

There are promising opportunities for large-scale CSPs to be undertaken in Northeast Asian countries, linking CSP plants in the Chinese Gobi Desert with the industrial centres of Northeast Asia in China, Korea and Japan. It was recommended that funding should be allocated for feasibility studies to explore the possibilities further.

 Upscale pilot projects encouraging sustainable chemicals management practices. Responsible production and chemical leasing aim to introduce sustainable patterns in chemicals production processes and consumption and risk management, while at the same time integrating "bottom line" objectives of companies.

Successful pilot projects that have proven to increase environmental and safety standards of companies, including small- and medium-sized enterprises, already exist in many countries including in Asia. The up scaling of such projects is needed to intensify the rethinking of chemicals management and related business practices, and promote intensified collaboration along the value chain, cross-linking know-how with stakeholder engagement.

Promote clean technologies using biomass in developing countries.

Biomass continues to be an important and even irreplaceable energy source for developing countries, providing cooking and heating energy, electricity, chemicals and liquid fuels. Moreover, the economic potential, especially for tropical Asian countries, is enormous. Technological innovations are needed so that biomass can be converted to usable energy in ways that are more efficient, less polluting and economical.

#### b. Funding

Increase and prioritise funding for green growth initiatives especially in the area of climate change adaptation and mitigation.

Existing funding mechanisms, such as, the European Union's SWITCH Asia programme, aim to encourage green growth initiatives by promoting Sustainable Consumption and Production (SCP) in Asia. However, more funding is required to foster the creation of innovative financing mechanisms (e.g. in the areas of carbon financing and payment for environmental services).

At the same time, prioritising how the funding should be allocated is also important. One priority area identified across the board is climate change adaptation and mitigation.

#### c. Regulation

Environmental regulation to promote green growth in many developing countries has improved in recent years. However, implementation remains weak.

**Section** Establish an effective independent regulatory body at the national level.

There is a need to support the establishment of independent regulatory bodies to ensure effectiveness, compatibility, information exchange and transparency of national regulations regarding green growth.

Introduce stronger economic incentives to encourage the implementation of environmental regulation regarding green growth already in place.

Stronger economic incentives for the private sector are key to bridging the gap between environmental regulation on green growth and its implementation.

Provide an environment that enables implementation of projects on a large scale.

Large-scale projects create the economies of scale needed for companies to be able to apply green growth regulations in an effective manner. Thus providing an environment that enables projects to be implemented on a large scale would be beneficial.

#### d. Platforms and Networking

The role of platforms and networks are crucial to further integrate the implementation of green growth practices and mechanisms among a wider range of stakeholders, especially the private sector. In this context, it is necessary to:

- Use existing networks and structures and develop and strengthen them further.
- Initiate and support intensified collaboration and know-how exchange in the supply chain.

#### e. Implementation and Impacts

The implementation of green growth practices in policy making will have a significant impact on a wide range of policy issues, namely:

Decouple economic growth from the consumption of natural resources and waste generation. This means that policies on economic development should no longer translate to the depletion of natural resources and the generation of unsustainable amounts of waste. An emphasis on green growth will ensure that the consumption of natural resources and the generation of waste will be done in the most efficient manner.

Rethink (European) agricultural policies (subsidies and protection) in view of reducing negative impacts to food and social security in developing countries.

Green growth practices will ensure that agricultural policies reflect both economic and environmental sustainability priorities. The lifting of agricultural subsidies and other protection measures and the restriction on pesticides and other chemicals in Europe will ensure that farmers in developing countries will be able to compete on a more equal basis.

Further develop sustainable consumption and production (SCP) for visible impacts at the macro-economic level.

SCP practices are currently only applied in certain markets and/or segments of the population. A wider implementation of SCP practices will result in more visible impacts at the macro-economic level.

Develop mechanisms for macro-economic implementation that considers cultural specificities.

It is important to develop green growth practices that take into account the cultural specificities in order not to disadvantage certain segments of a population.

Ensure green growth is also accessible to the most vulnerable in the population.

Moreover, moving toward a greener economy cannot leave the most vulnerable in the population in a disadvantaged position. Governments must create programmes and mechanisms to ensure that the poorest will also benefit from these policy advancements.

#### 3. Environmental Governance

Environmental governance is a broad topic that all governments must look into for the preparation of the Rio+20 Earth Summit. Five workshops examined law enforcement and compliance, the role of institutions in regional environmental governance, effective tools for participatory decision-making and education for sustainable development as crucial elements to strengthen environmental governance in the two regions. A strong emphasis was made for the need to recognise the role and responsibility of the private sector, including the media and creative industries, and to support such policy objectives through promoting sustainable consumer choices.

#### a. Law Enforcement and Compliance

Environmental compliance and enforcement are the foundation for the rule of law, good governance, and sustainable development. In this context, the independence of public prosecutors, inspectors and the judiciary is essential. Moreover, the experience of using national and regional networks as platforms to exchange best practices between countries and regions on environmental governance was discussed at length. Specific case studies in Asia and Europe were showcased to demonstrate how countries and regions have and may use legislative and enforcement tools to contribute to the sustainable management of natural resources.

#### Ensure the implementability of legislation and policies.

There is a need for countries to consolidate and simplify their existing environmental legislation and policies to ensure better implementation and compliance by stakeholders.

Moreover, key stakeholders (e.g. inspectors) as well as the general public should be part of a comprehensive stakeholder consultation during different parts of the policy cycle. Taking into account the role of networks in promoting best practices, existing networks like the International Network for Environmental Compliance and Enforcement (INECE) and regional environmental compliance and enforcement networks in Europe and Asia should also be involved in the consultation and well as implementation processes.

The ENVforum is well-positioned to facilitate the consolidation and expansion of such networks and could therefore play a role in:

 Collecting and updating data regarding best practices in environmental law enforcement and compliance.

- Organising exchange programmes between the EU and Asia, focusing on specific topics related to environmental law enforcement and compliance.
- Promote awareness as a tool for compliance and enforcement.

Raising awareness regarding environmental governance is both a top-down and bottom-up approach. On one hand, it means that governments need to establish common basic programmes for compliance and enforcement of legislation and policy. On the other hand, there is a need to engage stakeholders, including disadvantaged groups in society, in dialogue and consultation at various stages of the policy cycle. Moreover, training members of the judiciary, inspectors and public prosecutors, as enforcers of the laws and policies, is an essential part of the process.

#### b. The Role of Institutions in Regional Environmental Governance

The development of environmental governance has a significant impact, not only at the national level but also at the regional and international levels. In fact, regional environmental governance is an essential component of the global environmental governance architecture.

Regional environmental governance idea and strategies, regional environmental policy, regional environmental education, and others, have repercussions both regionally and globally. In this context, the role of regional institutions in Asia and Europe were examined and best practices highlighted with the view of generating policy recommendations to bridge the progress gap between developed and developing countries.

Increase the capacity of institutions both at the local and regional levels.

The capacity of regional institutions depends on its local institutions. Therefore, any efforts to strengthen the capacity of regional institutions must begin at the local level. This includes taking into account local specificities and empowering local institutions in decision-making.

Universities and NGOs also have a role to play in strengthening the capacity of institutions and therefore exchanges and partnerships between universities, NGOs and public institutions should be encouraged, especially in the context of tailor-made capacity building exercises.

Encourage exchange, research and networking between Asia and Europe.

As Asian and European institutions are at different stages of the process of developing regional environmental governance, it is necessary for the two regions to intensify the exchange of experiences and best practices. Deeper cooperation will enrich the policy process and generate innovative solutions.

Specifically, Asian and European regional institutions may work together to create new business opportunities (e.g. green jobs, green technologies); develop "eco-cities" (where water, energy, transport, housing and land management, and social policies are integrated); and "integrated assessments" at all levels (including at the policy, planning, projects, programmes levels).

#### c. Participatory Decision-making

Broad and equitable public participation in decision-making is vital to facilitate effective and optimal natural resource and environmental management. Restrained information sharing or so-called information asymmetry inhibits optimal decision-making and is detrimental to long-term sustainability.

Access to environmental decisions is one of the key prerequisites for participatory environmental decision-making. Yet, many governments have yet to acknowledge environmental information as a public good, and withhold it under the pretext of privacy and national security protection. Ensuing discussions took stock of best practices and methodologies for promoting participatory environmental decision-making and exchange of information and experiences between Asian and European stakeholders.

Revitalise multistakeholder sustainability policy dialogue platforms (e.g. National Sustainable Development Councils) in preparation for the Rio+20 Earth Summit.

The occasion of the Rio+20 Earth Summit is an opportunity for governments to revitalise multistakeholder policy dialogue platforms both at the national and regional levels, in the view of identifying best practices as well as challenges to implement participatory decision-making in environmental policy.

Undertake an Asia-Europe joint study on policy mixes and institutional mechanisms.

This process is crucial to identify key components of the policy and institutional frameworks that are conducive to participatory environmental decision-making.

Promote platforms for Asia-Europe knowledge sharing and collaboration in the areas of training on mega-trend analysis, scenario approaches, conflict resolution and mediation, policy mixes (impact assessment/ information measures) and priority policy issues (e.g. climate change mitigation/adaptation).

Such an approach will help elucidate processes in which models and key features of training programmes for strengthening social capacity that will foster participatory environmental decision-making can be further developed. Better methods for conflict resolutions through participatory environmental decision-making can also be identified.

A deeper capacity in participatory environmental decision-making among relevant institutions also curtails the violation of environmental regulations and improves the environmental performance of the private sector.

#### d. Education for Sustainable Development

Environmental education is a crucial tool to raise awareness, especially among younger generations, regarding pertinent environmental issues. In both Asia and Europe, this awareness contributes significantly to a better consideration of such issues in political decision-making. Although environmental awareness has increased in Europe in recent years, it is still a new and challenging issue in Asia, where governments usually focus their policies on economic growth and poverty eradication. Thus the policy recommendations are as follows:

- Develop standard curricula on environment education at the national level for schools and universities.
- Intensify training programmes for teachers and further stakeholders on environmental education. This includes experimenting with different methodologies, such as long-distance learning.
- Create a regional platform in Asia for knowledge exchange and information sharing environmental education at the tertiary level.
- Create networks between "green universities" in Asia and Europe.

The ability, role and responsibility of media companies in affecting positive social action and behaviour change on critical issues were given particular emphasis. Media companies are increasingly aware of their own Corporate Social Responsibility (CSR) to participate in activities to reduce and prepare for the effects of climate change and the growth of a green economy. The recommendations are as follows:

- Incorporate ideas and talent from advertising and creative industry to create high-end quality media products targeting all level of audiences.
- Establish a database that is easily accessible to journalists where they can identify reliable and relevant news, data, and contact details of climate change experts to assist them in their reporting.
- Intensify efforts to develop climate change training workshops not limited to journalists, but also for editors and gatekeepers.
- Encourage the usage of information communication technology and social networking platforms in communicating climate change.
- Encourage multistakeholder partnerships to create sustainable public awareness campaign to educate audience, and change attitudes and behaviour on sustainable consumption and production.

#### 4. Biodiversity

There is a compelling need to conserve and sustainably use forests, coral reefs, peat land and mangrove biodiversity and ecosystems under a new climatic regime and to address the threats. Two workshops discussed the impacts of climate change toward biodiversity as well as the sustainable use of forest products and focused on technical cooperation as the main area for greater Asia-Europe co-operation.

Assessing and valuing biodiversity and ecosystems services through regional "The Economics of Ecosystems and Biodiversity (TEEB) studies".

Payments for Ecosystems Services (PES) could enhance sustainable use of biodiversity and ecosystems services (particularly in forest and coastal, marine and wetlands ecosystems and appropriate environmental policies and relevant institutional framework must be in place.

Further understanding of the science and economics of biodiversity and ecosystems through targeted communication and public awareness campaign and experimental research.

Innovative solutions, technological know-how and knowledge are available and need to be shared and collaboratively undertaken at all levels, particularly for local communities and protected area managers. The role of private sector is critical in sustaining efforts in managing ecosystems and biodiversity.

Mainstreaming biodiversity and ecosystems into other sectoral policies and actions, including strategies for poverty reduction.

Addressing biodiversity loss and ecosystems degradation is part of the solution to address climate change and poverty. Ecosystem-based approaches to climate change adaptation and mitigation are ready for use, provide jobs and bring multiple benefits at a comparatively low cost. Thus, biodiversity issues should be holistically integrated into other sectoral policies and actions. Strategies for poverty reduction, in particular, need to reflect biodiversity priorities, as the poor are the ones who will be directly impacted by biodiversity losses and climate change.

## 2. SUMMARY OF SPECIAL PRESENTATIONS

## 2.1: "The European Environment: State and Outlook Report 2010 (SOER 2010). Supporting Environmental Governance."

Mr. David Stanners, Head of International Cooperation, European Environmental Agency

#### Introduction

The European Environment Agency (EEA) works with a number of countries, including both member countries and cooperating countries. In addition to this, the EEA is also incorporating a strategy for a new partnership with Central Asia.

The policies of the European Union on environmental matters have grown increasingly complex since the 1970's to today. The State and Outlook Report of the EEA is an important part of the landscape of environment-focused assessments

#### State and Outlook Report 2010

The State and Outlook Report 2010 comprises of thematic assessments (e.g. biodiversity, consumption and environment, water resources), assessments of global megatrends (e.g. social, technological, political) and individual country assessments. The country assessments focus on 6 common issues, namely, climate change mitigation, land use, nature protection and biodiversity, waste, freshwater and air pollution.

The synthesis of the report provides an integrated assessment based on the information gathered from the range of other assessments. This synthesis addresses four key environmental challenges in Europe i.e. climate change, nature and biodiversity, natural resources and waste, environment and health. The assessment in SOER 2010 points to four emerging environmental priorities:

- 1. Implementing and strengthening current environmental priorities. Climate change, nature and biodiversity, natural resource use and waste, environment, health and quality of life remain important.
- 2. Dedicated management of natural capital and ecosystem services for example, by increasing resource efficiency, emerge as key integrating concepts for dealing with environmental priorities.
- Coherent integration of environmental considerations across the many sectoral policy domains can help protect this natural capital efficiently by reducing common pressures on the environment.
- 4. A greening of the economy supported by highly integrated policies provides a pathway to addressing the long-term viability of natural capital within Europe and reduced dependency on it outside of Europe.

The focus is on moving from only fixing or striving to achieve targets to good overall management of resources, and building resilience and adaptive capacity. In order to enable the good management of natural capital and ecosystem services, the following conditions are useful: resource efficiency, policy integration and coherence, eco-innovation, green infrastructure and fiscal reforms, environment and ecosystem accounting and indicators and data.

### 2.2: "Environment Outlook in ASEAN: ASEAN State of the Environment Report 2009."

Dr. Raman Letchumanan, Head of Environment Unit, Association of Southeast Asian Nations (ASEAN)

#### Introduction

"We envision a clean and green ASEAN with fully established mechanisms for sustainable development to ensure the protection of the region's environment, the sustainability of its natural resources, and the high quality of life of its people."

**ASEAN Vision 2020** 

The Environmental Sustainability arm of the ASEAN community focuses on a range of issues including environmental education, environmentally sound technology, harmonisation of environmental policies and databases, and environmentally sustainable cities. The ASEAN State of the Environment Report is published every three years. It showcases the state of environment and natural resources, and, highlights emerging challenges and policy responses. It serves to inform and invite collaboration for regional cooperation in ASEAN.

ASEAN covers a land-area of over four million kilometres. Its climate is tropical with an average temperature of 25-34 degrees Celsius and a total population of 580 million (2008).

#### State of the Environment

**Freshwater** – Water consumption in ASEAN is expected to double during the second half of the 21st century. Increasing population and industrial activities impact water quality. There are now 1764 water quality-monitoring stations throughout ASEAN.

**Mangrove and Peatland** – Wetlands, including mangrove and peatland are unique ecosystems in ASEAN with significant biological, environmental, social and economic importance. The ASEAN Peatland Management Strategy has been adopted to address the issues of wetland management on a sustainable basis.

**Marine** – ASEAN accounts for about 17% of the world's total marine fish production, and 34% of the world's coral reefs. Pollution, development activities, oil spills, mining and climate change are just some of the threats to ASEAN's coastal and marine resources. In 2002, the ASEAN environment ministers

adopted the ASEAN Criteria for Marine Heritage Areas and Criteria for National Marine Protected Areas in 2002 to safeguard the region's marine and coastal biological resources.

**Terrestrial Ecosystems** – ASEAN contains 20% of all known plant, animal and marine species. Climate change, habitat loss, invasive alien species and the illegal wildlife trade represent some of the threats to ASEAN's rich biodiversity. The ASEAN Heritage Parks programme, ASEAN Wildlife Enforcement Network and The Heart of Borneo are some of ASEAN's initiatives to protect its terrestrial ecosystems and biodiversity.

**Atmosphere** – Trans boundary smoke haze remains a recurring challenge in ASEAN. Actions taken to address this problem include the ASEAN Agreement on Trans boundary Haze Pollution (2002), sub-regional concrete on the ground actions in the Mekong and Southern region of ASEAN and bilateral collaboration between Indonesia with Malaysia and Singapore.

**Sustainable Consumption and Production** – Most ASEAN countries dispose their municipal solid waste at sanitary landfills or open dumps. Various programmes based on 3R's – Reduce, Reuse and Recycle – are being implemented through awareness campaigns and engaging with local communities. Sustainable consumption and production is also promoted.

**Global Environment Issues** – ASEAN is fully committed to major multilateral environmental agreements. It has also significantly reduced the use of ozone depleting chlorofluorocarbons.

#### Conclusion

The chosen theme for the 2009 ASEAN Day celebrations was "Green ASEAN." The three pronged approach by ASEAN is to:

- Build an environmentally sustainable clean and green ASEAN community,
- Transform the green shoots of growth in the face of the 2008 global financial crisis into an economically resilient ASEAN anchored upon green growth,
- Nurture the new ASEAN to be a people-centred organisation that respects and lives in harmony with nature.

While much has been achieved, more remains to be done in order to sustain and improve the region's environmental sustainability towards the realisation of "Green ASEAN."

### 2.3: "Green Growth, Resources and Resilience: Environmental Sustainability in Asia and the Pacific"

Mr. Daniele Ponzi, Lead Environmental Specialist and ADB GEF Coordinator, Environment and Safeguards Division, Asian Development Bank.

#### Introduction

This presentation is based on a draft report "Green Growth, Resources and Resilience," in preparation by the Asian Development Bank (ADB), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and the United Nations Environment Programme (UNEP).

The Asia-Pacific region is the world's biggest resource user and while most economies are becoming more resource efficient, total resource intensity continues to increase. During the recent financial crisis, Asian countries have led the world in "green investments" as part of stimulus spending. Regionally, there has been widespread uptake of 3R policy objectives and legislative action to promote resource efficiency.

However, there is renewed imperative for strong improvements in resource productivity while maintaining and enhancing labour productivity.

#### **Priority Actions**

**Sustainable Infrastructure** – 44 million are added to Asia's urban population each year, and trillions of dollars have been projected for investment in new infrastructure over the next 10 years. This presents an opportunity to design new investments using principles of sustainability and the use of innovative solutions such as smart grid technology.

**Green Tax Reform** – Distorting subsidies should be removed and taxes should be applied to "bads" such as pollution and inefficient use of resources. Other financial mechanisms include rebating new revenue from taxes to affected-companies and reducing taxes and other financial burdens for "goods" such as sustainable production.

**Investing in Natural Capital** – This involves estimating the full economic value of healthy ecosystems, pursuing payment for ecosystem services and using carbon emission reductions through Reduced Emissions from Deforestation and Degradation (REDD) as a key financing instrument for sustainable forest management.

**Green Jobs and Green Industries** – This priority requires education and skills programmes for qualified entrepreneurs and skilled workers to support job creation. In order to support local green industries, government interventions can focus on overcoming the barriers and risks that currently restrict capital flows into key sectors.

#### Conclusion

Incremental efficient improvements are unlikely to be sufficient over the long-term. Instead, transformational shifts are required which include changes in consumption patterns and lifestyle. Priority actions vary by country. Some need to focus more on reducing vulnerability and building resilience while others are ready to go towards a greener growth transformation.

#### 2.4: "Stockholm +40. Rio +20."

Mr. Surendra Shrestha, Director, Strategic Resource Mobilization/ Special Initiatives, United Nations Environment Programme.

#### Introduction

Sustainable development has been a priority for over 40 years now. Notable milestones have included the Stockholm Conference in 1972, The World Charter for Nature by the United Nations General Assembly in 1982, the Our Common Future Report in 1987, Agenda 21, the Rio Declaration on Environment and Development, and the Statement of principles for the Sustainable Management of Forests in 1992 and finally, the Johannesburg plan of Implementation in 2002.

The first Preparatory Committee meeting for Rio +20 was held in May 2010. The goals of this meeting were; securing political commitment for sustainable development, accessing progress and gaps in already agreed commitments and addressing new and emerging challenges. Themes of this meeting were; a green economy within the context of sustainable development and poverty eradication and institutional framework for sustainable development.

The High Level Panel on Global Sustainability is chaired by the Presidents of Finland and South Africa. It consists of 21 members from governments, the private sector, civil society organisations, the organisation for economic cooperation and development and less developed countries. This report will be published by December 2011.

#### Key challenges going forward include:

- A bold and collective political leadership.
- Participatory process from the national to the global level,
- Building on experience and knowledge from Stockholm to Copenhagen,
- Keeping priorities of lay persons and poor farmers at the forefront.

### 2.5: "The Road from Rio '92: The Asian Experience Twenty Years Hence"

Prof. Cielito Habito, Director, Ateneo Center for Economic Research and Development, Ateneo de Manila University

#### Introduction

Over the last twenty years, some of the things that Asia has achieved in varying degrees includes, the integration of sustainable development into local and national development plans, the provision of participatory mechanisms and processes, a strengthening of regional and sub-regional cooperation and ratification and adherence to Multilateral Environmental Agreements (MEAs).

#### Challenges

Some of the challenges that remain for Asia include the proper integration of social, economic and environmental dimensions of development, unclear demarcation of the roles of different sectors of government which makes policy coordination difficult, incoherent approaches and strategies caused by conflicting rules, policy gaps and wrong price signals, inconsistencies in commitment by top political leadership and difficulties in access to relevant information which constrains stakeholder participation.

New challenges that have emerged include addressing the impact on sustainable development from financial crises, the climate change threat and rapid urbanisation.

#### Conclusion

Some general imperatives for Rio +20 are getting down to the basics, garnering wider and stronger commitment to climate change mitigation and adaptation, anticipating and addressing impending resource crises, prioritising biodiversity and improving global governance mechanisms and international cooperation.

#### 2.6: "Rio +20"

### Ms. Marta Bonifert, Executive Director, Regional Environmental Center for Central and Eastern Europe.

The Rio Earth Summit was held in 1992, and included the participation of 172 governments, 108 heads of state, 2400 non-governmental organisation (NGO) representatives and 17,000 activists in a parallel NGO forum. The result of this summit was the Agenda 21, the Rio Declaration on Environment and Development, the Statement of Forest Principles, the Convention on Climate Change and the Convention on Biological Diversity. This also resulted in the creation of the Commission on Sustainable Development (CSD).

The European Union (EU) has demonstrated its commitment to sustainable development through the Amsterdam Treaty of 1996. In July 2001, the Gothenburg European Council invited member states to draw up their own national sustainable development strategies. Consequently, most EU member states adopted their Sustainable Development strategy prior to the Johannesburg World Summit for Sustainable Development of 2002. The key issues at the Johannesburg Summit were; poverty, development and the environment, financing for development, global environmental governance, and implementation of environmental agreements.

In 2006, the European Council adopted a renewed EU Sustainable Development Strategy. This provided further impetus for sustainable development strategies across the EU, particularly for new member countries.

In July 2009, the Commission adopted the 2009 review of the EU Sustainable Development Strategy. In December of the same year, the European Council confirmed that sustainable development remains a fundamental objective of the European Union under the Lisbon Treaty.

#### 3. WORKSHOP REPORTS

3.1. Workshop 01: "Biodiversity, Ecosystem Services and Climate Change: Exploring Links and Setting Actions into Motion" hosted by: Association of Southeast Asian Nations (ASEAN) Centre for Biodiversity (ACB) and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)

Rapporteur: Clarissa Arida, Centre for Biodiversity, The Association of Southeast Asian Nations (ASEAN).

#### Summary of the discussion:

The workshop focused on the wealth of biodiversity resources and ecosystems services in Asia and Europe and the drivers and threats behind biodiversity and ecosystems loss. Ecosystems-based approaches and tools such as ecosystems assessment, integrated coastal management (ICM), adaptive management and valuing biodiversity and ecosystems services were discussed. Examples of ecosystem restoration on coral reefs, wetlands and peat lands were cited including policies on biodiversity and ecosystems at the global, regional and national levels.

The highlights of the discussion were that ecosystems management can be made more operational at the ground level with the involvement of local communities (such as fisher folks and farmers) and protected area managers. Concerns of community-based groups must feed into decision-making processes at the national and global levels. In many cases, local communities do not understand the implications of global policies on the ground but they must be supported in their initiatives on ecosystems restoration, protection and livelihoods. The value of biodiversity and ecosystems services should also be communicated at all levels, particularly to policy makers.

#### Policy objective:

The objective is to demonstrate the linkages between biodiversity, ecosystems services and climate change and how these relate to policies and strategies on environment and sustainable development and poverty reduction in Southeast Asia.

#### **Background information:**

Biodiversity, ecosystems services and climate change are highly interlinked and inter-connected. Biodiversity is part of the solution to address climate change. It is not possible to address climate change without addressing causes of biodiversity loss and ecosystems services and *vice versa*. Reducing biodiversity loss is also part of the solution to poverty eradication.

Complex interlinked challenges require solidarity and integrated approaches such as ecosystem-based approaches, adaptive management or an ICM framework involving people and providing potential multiple benefits.

Continuing grave threats to ecosystems and biodiversity prevail. Marine biological resources are at risk, threatened by a range of factors, such as over-fishing, destructive fishing practices, pollution and climate change. Wetlands such as mangroves and peat lands in Southeast Asia provide benefits and are the main sources of food and income for 580 million people. It is imperative to protect and restore these ecosystems for their economic value and the value of services that these ecosystems and biodiversity provide. The Economics of Ecosystems and Biodiversity (TEEB) study highlights the growing cost of biodiversity loss and ecosystem degradation as well as the benefits of conservation and sustainable use. The TEEB aims to promote a better understanding of the true economic value of ecosystem services which are not normally captured in the markets.

Ecosystem approaches to wetlands and fisheries management and integrated coastal management strategies must also guide conservation and sustainable livelihood activities.

#### **Recommendations for policy makers:**

There is compelling need to conserve and sustainably use coral reefs, peat land and mangrove ecosystems under a new climatic regime and to address threats to them. This can be done by further strengthening Asia-Europe partnerships through improving regional policy and institutional frameworks with regional institutions such as The Association of South East Asian Nations (ASEAN), the Asia Commercial Bank (ACB), Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), etc. and local communities playing a key role, in partnership with ASEAN and the European Union countries.

Innovative solutions are available and need to be shared. The role of the private sector is critical in sustaining efforts in managing ecosystems and biodiversity, as exemplified by the case of PTT Company in Thailand.

Ecosystem assessment as a tool for better decision-making helps respond to information needs, highlight trade-offs between decision points; engage decision makers through the assessment process and examine a plausible future (UNEP-WCMC). ICM is a useful tool to manage ecosystems and address climate change through governance measures and on the ground activities such as natural and human-made hazards, waste reduction, food security and livelihoods, pollution, waste management, and habitat protection and restoration (PEMSEA).

Partnerships between Asia and Europe can also be strengthened in the areas of achieving the Millennium Development Goals (MDGs) and integrating biodiversity and ecosystems management; sharing good practices and lessons-learned; and collaborating and building multi-stakeholder partnerships in conservation and restoration efforts; and capacity-building to improve science-policy interface at appropriate levels in support of Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and applying adaptive management strategies.

In summary, possible areas of cooperation for an Asia-Europe partnership can cover: assessing biodiversity and ecosystems, valuing biodiversity and ecosystems services through conducting a regional TEEB study and developing further understanding of the science and economics of biodiversity and ecosystems through targeted communication and public awareness campaign and experimental research, and, mainstreaming biodiversity and ecosystems into other sectoral policies and actions, including poverty reduction strategies. Capacity building as a cross-cutting need may cover support to local communities and protected area managers (e.g., in ASEAN Heritage Parks) to manage and restore ecosystems services, through the support of regional organisations.

## 3.2. Workshop 02: "Concentrated Solar Power as a Feasible Part of the European and Asian Energy Mix? From Desertec EUMENA to Gobitec?" hosted by: Hanns Seidel Foundation Korea and Gobitec Research Network

Rapporteur: Dr. Joo Hyun Go, Hanns Seidel Foundation, Korea (HSF-Korea).

#### Summary of the discussion:

Renewable energy cooperation in Europe, North Africa and Northeast Asia, in particular through large-scale power plants in desert areas with concentrated solar power (CSP) technology plus a mix of other renewables, offers a chance to tackle climate change, contribute to energy diversification and security, and foster cooperation. Also, it creates job opportunities and spurs development in disadvantaged regions. The Desertec EUMENA (Europe, Middle East and Northern Africa) initiative, points the way to this kind of cooperation in Europe and North Africa and can also serve as a model for similar approaches in Northeast Asia (Gobitec).

This generation of renewable energy on a large-scale through power plants in desert areas, in particular through CSP technology, promises to contribute in an important way to the provision of clean and inexhaustible energy in the future. The introduction of a sufficient degree of competition in the industry will also make this a competitive and economically viable endeavour. However, successful implementation requires an important amount of policy coordination and institutionalisation of energy policy. While in Europe and North Africa, through a number of public (e.g. Mediterranean Solar Plan) and private initiatives (e.g. Desertec Industrial Initiative), such a development seems highly feasible, in Northeast Asia the debate on a similar cooperation has only just started.

#### Policy objective:

The main objective of the Desertec EUMENA and Gobitec projects is to create an integrated network of large-scale renewable energy power plants in arid areas and an intelligent high-voltage grid to transport this energy over large distances to industrial centres in Europe and Northeast Asia, thereby reducing dependency on fossil fuels, lowering CO2 emissions, contributing to sustainable socio-economic development and fostering regional cooperation.

#### **Background information:**

The idea behind Desertec is to generate clean and inexhaustible energy in the Sahara desert and transport it through a sophisticated energy grid to adjacent regions of the Middle East and North Africa (MENA) region and the industrial centres of Europe. The technology for this - solar thermal power generation - is already known and used on a small scale. The energy is clean, inexhaustible and can be managed. In California, this technology has been tested for 20 years without any greater problems for example, in terms of damage from natural disasters like sandstorms or typhoons, than for other forms of energy production. Energy production in deserts is also much more efficient (according to one study, the use of a solar energy station in North Africa is 200 times more efficient than the production of energy plants in Europe with the same land use). For Northeast Asia, the Desertec approach offers a fascinating model to be applied to the region. Here, the demand for a stable energy mix is even more pronounced, in particular for Korea and Japan, In Northeast Asia, the geography is similar - the region is adjacent to Chinese-Mongolian desert regions - and the political situation, though not easy, it at least not more problematic than that in the MENA region. In fact, the idea of a similar project, here labelled 'Gobitec' (alluding to the Gobi desert in Northern China and Southern Mongolia) could concurrently contribute to three important policy goals:

- As a catalyst for policy cooperation,
- Promoting political integration by the creation of a Northeast Asian Energy Community,
- Increasing energy security, by increasing energy choices and decreasing dependency on monopoly suppliers from Russia and the Middle East.

#### Recommendations for policy makers:

- In Europe and the EUMENA (Europe, Middle East and Northern Africa) regulatory preconditions for implementation of the Desertec project, regarding energy price structure and grid integration have to be created.
- Northeast Asian countries need first of all to study the feasibility of large-scale renewable energy power plants in desert areas in China and Mongolia. The feasibility study should be ordered at the highest political level (at the trilateral environmental ministers meeting of China, Japan and Korea) and would require a sufficient amount of funding.

- 3. The knowledge generated in twenty years of discussions on renewable energy cooperation through the Club of Rome Trec initiative and the ensuing Desertec initiative should be made available to the research community in Northeast Asia to allow for benchmarking and to stimulate academic competition.
- Knowledge about socio-economic development as a desired by-product of the Desertec EUMENA and Gobitec project should be actively disseminated to create a favourable political environment for the projects.
- 5. Networks for renewable energy cooperation in EUMENA and Northeast Asia should be strengthened and interlinked to speed up the discussion and implementation of the Desertec EUMENA and Gobitec projects, a task in particular to be addressed by Asia Europe Meeting and its institutions.

3.3. Workshop 03: "Environmental Governance: Trust and Capacity Building through Networking: The Examples of Regional Networks Focusing on Law Enforcement and Compliance" hosted by: Regional Environmental Center (REC) and Asia Pacific Jurist Association (member of AECEN)

Rapporteur: Kenty Richardson, Regional Environmental Center (REC).

#### Summary of the discussion:

The workshop was aligned with the Environmental Governance umbrella topic and hosted by the Regional Environmental Center and the Asia Pacific Jurist Association (APJA) that is member of the Asian Environmental Compliance and Enforcement Network (AECEN). It brought forward the experience of using an exchange of experience via networking to improve environmental governance.

The workshop incorporated the experience of the International Network for Environmental Compliance and Enforcement (INECE), the Environmental Compliance and Enforcement Network for Accession operating in South East Europe (ECENA) and 2 networks in Asia, APJA and AECEN network. The workshop provided also an illustration of the challenges in setting up a network (Morocco) as well as on the benefits of national networking (Serbia).

Through these diverse examples, it aimed to demonstrate how countries and regions have used and can use legislative and enforcement tools to contribute to the sustainable management of natural resources in the future.

The basic principles of environmental governance under these initiatives are to:

- Increase national capacities to implement and enforce environmental law in different sectors, such as law drafting, police, environmental inspectors, customs and judiciary,
- Provide all these agents a common platform of communication and understanding to unite and coordinate their efforts in the environmental sector (nationally),
- Extend the same platform regionally, increasing transnational cooperation in environmental law implementation and enforcement - a growing need given the globalisation of the sources of infringement.

The internationalisation of the network to a regional level also reinforces the first point: increasing capacities. Apart from an exchange of information on enforcement strategies, specific problems etc., the network allows for each country to show others its best practices and successes. When a dialogue is established, then all the members of the network enter a stage where they learn from each other, simultaneously harmonising enforcement strategies for better regional and national enforcement.

#### **INECE** has the following strategic goals:

- Raise awareness of the importance of environmental compliance and enforcement.
- Strengthen capacity throughout the regulatory cycle to implement and secure compliance with environmental requirements,
- Develop and support networks for enforcement and compliance cooperation.

INECE also promotes the Seaport Environmental Security Network with the following goals:

- Raise awareness of illegal movements of hazardous waste through seaports, the associated environmental risks and the need to take action against them,
- Build capacity for inspections and enforcement actions,
- Facilitate international enforcement collaboration among government officials on ways to detect and stop illegal and dangerous shipments of hazardous waste.

**APJA** – Asia Pacific Jurist Association provides a forum for masses of legal professionals in the Asia Pacific Region and creates opportunities to meet, interact and share their experiences, brainstorm resolutions and provide insight into different legal systems with the view to promote maximum utilisation of resources by evolving innovative tools for enforcement and compliance and achieving sustainable development.

**AECEN** - (Asian Environment Compliance & Enforcement Network) is the regional practitioners' network of national and sub-national agencies from Asian countries committed to improving environmental compliance and enforcement

in Asia. It was formed in 2004 by 13 countries of the region and is an initiative of USAID, and the Asian Development Bank in partnership with the World Bank, the Organisation for Economic Cooperation and Development (OECD), INECE and the US Environmental and Protection Agency (USEPA). APJA is also a founder partner. The main objectives of AECEN are to:

- Promote improved compliance with environmental legal requirements in Asia through regional exchange of innovative policies and practices in Asia,
- Provide a forum to member countries for sharing best practices and strategies of effective environmental compliance and enforcement,
- Enable members to engage in activities that strengthen legal and regulatory frameworks and human and institutional capacity for improved compliance and enforcement.

#### Policy objectives:

- Enhance cooperation between Asian and European regional networks,
- Discuss measures to institutionalise such cooperation,
- Demonstrate how to increase environmental protection through law enforcement.
- Discuss issues of environmental crime that affect both Europe and Asia,
   like trans frontier shipment of waste (including hazardous and e-waste),
- Raise awareness of the role of law enforcement and institutional synergies.

#### **Background information:**

One of the reasons for environmental degradation is the implementation gap. There is a need to better estimate the cost of compliance versus the cost of non-compliance. Investors should not be attracted by weak legislation due to the cost of compliance.

#### Recommendations for policy makers:

#### General conclusions:

Stakeholders have to realise that environmental compliance and enforcement are the foundation for the rule of law, good governance and sustainable development. Therefore, coherent compliance and enforcement are crucial elements to make the law workable and are a prerequisite for sustainability. Consequently, network exchange on compliance and enforcement practices is a valuable tool that should be stimulated. Networks help to make law effective.

All efforts should be directed towards the independence of public prosecutors, inspectors and the judiciary.

#### Specific conclusions:

- Legislation and policies should be formulated in an implementable manner;
- There should be a consolidation and simplification of laws,
- Make legislation integrated with the initial aspects of implementation,
- Include implementation issues and discussions with inspectors;
- Dialogue with the regulated community is essential during the law making process,
- Involve the public at large when preparing legislation,
- Policy makers should take into account existing networks when formulating policies.

Promote awareness as a tool for compliance and enforcement:

- Promote awareness to general public and regulated community (top down and bottom up),
- Train members of the judiciary, inspectors (from environmental bodies or police) and public prosecutors,
- Establish common minimum programs for compliance and enforcement and create training modules under these programs,

Promote dialogue with disadvantaged groups of society.

#### Specific proposals:

ASEF can help in supporting the work and activities for the consolidation and expansion of the networks:

- Support for organising EU-ASIA exchange programs focusing on specific topics related to enforcement and compliance,
- Collect best practices in enforcement and compliance,
- Create country wide chapters to collect information regarding compliance and updating the data.

## 3.4. Workshop 04: "Environmental Governance for Sustainable Development in Asia and Europe: The Role of Asian and European Institutions" hosted by: EDC, UNU-CRIS, ISDR and University of Naples "Federico II"

Rapporteur: Pasquale De Toro, Department of Conservation of Architectural and Environmental Assets. University of Naples "Federico II"

#### Summary of the discussion:

At an international level there has been recognition of the necessity for a broader context of environmental sustainability and sustainable development and for the identification of ways and means to meet the following objectives:

- Creating a strong, credible and coherent science base,
- Developing a global authoritative and responsive voice for environmental sustainability,
- Securing sufficient predictable funding,
- Ensuring human and institutional capacity building,
- Facilitating the transition towards a global green economy.

At a local level, best practices in environmental governance have shown that successful cities have invested in the triangle of:

- Creativity,
- Resilience.
- Sustainability.

It is very important to note that these cities have interpreted resilience not only in ecological terms but also along social and cultural dimensions. Social resilience depends on the density of formal and informal social networks and an ability to conserve a certain identity of the community over time. Cultural resilience represents the internal energy of the city - the inner force that reacts to external forces - adapting to them and conserving a specific identity in the long run, in spite of turbulent transformation processes. In these cities, cultural

resilience is built on promoting a different way of thinking in people, based on a better knowledge, a better capacity to compare (i.e. to evaluate in critical thinking), and a better capacity to introduce changes in choices.

These cities have pursued a systemic way to approach sustainability (environment, social, economic) with attention to a "circular" economy. Plurality of values (often in conflict) has been managed in a multidimensional approach, so that natural/ecological values have been transformed into "civic" values. These practices can be considered win-win experiences that are able to conserve the environment and improve the economy.

Evaluation and monitoring processes are fundamental tools in environmental governance, especially in order to build consensus starting from real experiences. Pilot projects and best practices evaluation are all offered through a public debate, in order to increase people participation and to make people protagonists of new policies.

To face environmental challenges and manage the transition toward an ecological economy, some cities have invested in resilience, assuming coevolution, circularisation and civilisation of economy as general principles of actions. In this perspective, sustainability has been promoted through investing in resilience and creativity.

Important tools (that can be used at all levels) for good environmental governance are "integrated assessments," representing an integrated approach to evaluation that is able to consider complex values, context peculiarities and dynamic interactions in order to build shared visions (and also strategies and actions) by the community. Integrated assessments can be used as a tool to strike a balance between conservation and transformation with respect to values and resources, taking into account uncertainty and conflict of values, also. In particular, assessment, evaluation and environmental governance need a constant relationship in processes of spatial transformations (policies, plans, programmes, projects). In this perspective, an "integrated approach" should define more satisfying performances of scenarios in relation to perceptions of different stakeholders, taking into account not only economic, technical, ecological and institutional limitations, but also political feasibility and social acceptability of proposed solutions, in answer to the emergent requirements coming from implementation processes.

In synthesis, it is necessary to develop decision support models (using hard data and soft data) that are able to consider the following within the decision-making process:

- Multiplicity of actors,
- Multiplicity of points of view,
- Incommensurable interests or in conflict,
- Important intangible values,
- Uncertainty,
- Risk.

In this way it is possible combine "expert knowledge" and "common knowledge" through public participation and using specific scientific tools, as multi-criteria analysis (MCA), multi-group analysis, geographic information systems (GIS), etc. Moreover, System Dynamics (SD) is also one of the recommended tools for developing decision support models. Indeed, integration between public participation with MCA, GIS, etc., also allows combining bottom-up and top-down approaches, different points of view and different knowledge, building shared visions of future, improving the environmental good governance.

#### Policy objective:

The workshop has identified three main objectives, according to which recommendations have been elaborated:

- Increase capacity building between Asia and Europe,
- Create networking between Asia and Europe,
- Active research between Asia and Europe.

#### **Background information:**

The existing situation is very different when considering Europe (in particular the European Union) and Asia, also taking into account the different European and Asian regions and sub-regions.

The role of regional and sub-regional organisations is crucial for effective environmental global governance. In this perspective in Asia, in 1967, the Association of Southeast Asian Nations (ASEAN) was established, founded by Indonesia, Malaysia, the Philippines, Singapore and Thailand. Today, the

population of ASEAN is about 580 million (8.7% of the world's population). There are numerous areas of cooperation between ASEAN and the EU, where the EU has assisted ASEAN in shaping some of its environmental programs and their implementation.

At the same time, we must recognise an "ASEAN way" to environmental governance, consisting in a regional collaboration which emphasises three norms:

- Non-interference or non-intervention in each other's domestic affairs,
- The use of consensus planning and cooperative programs, and
- Preference for national implementation rather than reliance on a strong region-wide agency or bureaucracy.

Organisational institutional frameworks include working groups, centres, task forces, and networks. They address different environmental themes such as nature conservation and biodiversity, coastal and marine protection, heritage conservation, and pollution amongst other things. Strong emphasis is also given to "capacity building" through education, training and enhancing public awareness. The role of the Asia-Europe Foundation has been very significant for moving from top-down to bottom-up approaches.

The workshop has also recognised that Asia consists of a number of developing countries which need intense follow up actions in capacity building for sustainable development. Among others, there are seven major initiatives which need Europe-Asia collaboration to achieve the following goals:

- Poverty reduction,
- Cleaner production and sustainable energy,
- Biodiversity conservation and land management,
- Protection and management of an access to fresh water resources,
- Protection of oceans, coastal and marine resources,
- Action on atmosphere and climatic change,
- Disaster management.

The European experience has been highlighted with particular reference to Italy where environmental governance is implemented at a national, regional and local level. In particular, cities have an important role in conservation (or deterioration) of the environment. In this perspective, it is recognised that many of the really successful experiences have been implemented at city level (i.e. local level) through using a bottom-up approach and through establishing networks between cites (especially small cities).

#### Recommendations for policy makers:

The workshop has identified some recommendations for Asia and Europe in order to grow sustainably, especially in order to reduce the gap between developed and developing countries. Recommendation are organised in three key issues:

Capacity building between Asia and Europe:

- Take into account local traditions
- Transfer responsibilities to local level/adaptation/up-scaling
- Link universities (education, science)
- Promote public-private partnerships
- Build capacity for young negotiators (science, law)
- Train in "situated strategies", i.e. linked to specific contexts (tailor-made)

#### Networking between Asia and Europe:

- Start at a local level before moving to a regional level
- Build confidence at both individual and institutional levels (vertical and horizontal linkages)
- Enhance cooperation between developed and developing countries (e.g. in science, law)
- Share experiences for solving environmental problems, for instance in implementation for solid waste reuse (e.g. in terms of user charges/ economic valuation)

#### Research between Asia and Europe:

- Develop "eco-cities": urbanisation covering (e.g. water, energy, transport, housing and land management, minimisation of social inequality),
- Develop joint research on regional/sub-regional environmental governance (institutions/mechanisms learning from each other),
- Develop "integrated assessments" at all levels (policies, plans, projects, programmes),
- Create new business opportunities (green jobs, green technologies).

# 3.5. Workshop 05: "Climate Change: Environmental Education for Sustainable Development in Asia and Europe" hosted by: Association of Southeast Asian Nations (ASEAN) Secretariat, Hanns Seidel Foundation (HSF), United Nations Environment Programme (UNEP)

Rapporteur: Mr. Hanns Buehler, Hanns Seidel Foundation (HSF)

#### Summary of the discussion:

The focus of the discussion was environmental education and education for sustainable development (EE / ESD) in Asia and Europe. It was clear that environmental education is an important cross cutting issue comprising sub-issues such as sustainable management of natural resources, green economy, biodiversity and ecosystem services and environmental governance. All experts agreed that bringing youth together and teaching them about sustainable development will be of utmost importance to achieving sustainable and green growth in the future.

The workshop presentations were split into two main parts. The first two presentations focused on concepts and strategies of EE implemented at the regional level of South East Asia and the Asia Pacific.

#### Part I:

One of the strategic objectives of the ASEAN Secretariat is to establish a clean and green Southeast Asia. This region should be rich in cultural traditions where the values and practices of the people are in accordance with the rhythm and harmony of nature, with citizens who are environmentally literate, imbued with an environmental ethic, and willing and capable to ensure the sustainable development of the region through environmental education and public participation efforts.

To achieve this aim ASEAN has implemented a number of different activities, such as the ASEAN Environmental Education Action Plan (AEEAP) 2008-2012 which embraces *inter alia* the following activities:

- ASEAN Environmental Education Inventory Database (AEEID),
- ASEAN Youth Portal for Sustainable Development,
- Support for ASEAN Green Schools.

Second part focused on environmental education in the context of the 'Decade of the Education for Sustainable Development (DESD)' in the Asia-Pacific Region. The main question would be how to train the next generation in ESD at both the community based level as well as in the formal sector. It was also pointed out that the ESD methodology has to be further developed. Important features of future ESDs are:

- Interdisciplinary and holistic (learning for sustainable development embedded in the whole curriculum, not as a separate subject),
- Locally relevant (addressing local as well as global issues, and using the languages which learners most commonly use),
- Values driven,
- Skills development (learning how to make decisions and empowering people to make decisions that assume responsibility for creating a sustainable future),
- Trans-disciplinary: Going between, across and beyond different disciplines.

The second part of the presentations focused on the practical training of future leaders in environmental education and education for sustainable development.

#### Part II

The next part of discussion concentrated on 'Environmental Management in Developing and Emerging Countries' and the 'Role of Advanced Training.' Global and regional challenges in environmental management were:

- Land Use Changes and Pressure,
- Water and Food Scarcity / Food Security,
- Desertification,
- Soil and Water Eutrophication and Contamination,
- Negative Atmospheric Impacts of Improper Technologies (Industry, Agriculture),
- Migration and Demographic Changes,

- Urbanisation and Problems in Waste Management (Recycling),
- Out-of-Date Energy Use / low Importance of Renewables.

It was important to underline that there was a clear interdependence between environmental management and environmental education. Education is an integrated part of environmental management. For this reason, the Dresden University of Technology has decided upon a postgraduate course on "ecosystem management" as a national contribution to UNEP in 1977. After the German reunification in 1990, the programme continued in the area of "capacity building" and "environmental management," with a strong link and orientation towards the focus of the UN environment policy and the international duties of the Federal Ministry of Environment.

It was mentioned that university curricula should have a stronger focus on specific trainings, e.g. on specific forms of recycling rather than on waste management as a whole.

On the contrary to the scientific approach of Dresden University's training programmes, the environment leadership programme at Tongji University has a more holistic approach, which combines nature and people as an entity.

#### Policy objectives:

Main objectives are as follows;

- To provide a knowledge base and share information on best practices in environmental education in Asia and Europe with an emphasis on climate change related topics,
- To discuss and evaluate measures to raise awareness through environmental education.
- To discuss and evaluate best practices in the field of environmental education,
- To figure out entry points for developing joint targets and strategies for environmental education and combating climate change,
- To enhance cooperation between Asian and European regional networks in environmental education.

#### **Background information:**

Many developing and newly industrialised countries in Asia and Europe are still struggling to combine economic growth with effective environmental protection. One reason for this is the lack of mass awareness in the society on environmental matters. It is apparent that without a certain mass awareness on environmental matters it is impossible to successfully implement environmental laws at a government level. One of the most effective ways to create such awareness is to teach environmental education at schools so that students can develop their own analytical and well-grounded attitude towards environmental matters at a young age.

A strong focus on environmental education is particularly important for developing countries, which are usually focused on poverty alleviation through economic growth while, at the same time, often neglecting environmental protection without realising that sustainable economic growth is much more profitable in the long run. Furthermore, the effects of climate change pose a serious threat especially to these countries. It is therefore crucial to focus on this topic in particular.

The HSF has made significant progress in Indonesia on environmental education in schools. However, the general awareness and knowledge on environmental protection in Indonesian society still leaves much room for improvement. This lack of awareness can be witnessed throughout the country, especially regarding the use of natural resources. The Indonesian Government has realised the threatened state of nature and, as a consequence, has recently passed a stricter law on environmental protection, while its proper implementation encounters difficulties. On this account it is imperative that Asia and Europe exchange their experiences and concepts on sustainable development through environmental education.

#### Recommendations for policy makers:

- Implement a regional platform in South East Asia (SEA) for knowledge exchange and sharing information on environmental education at a university level,
- Create networks between "green universities" in SEA and Europe,
- 3. Develop a standard curriculum on EE for schools and universities as well as at the community level,

- 4. Stronger support for governments on implementing EE-curricula in the formal and non-formal sector,
- 5. Intensify training programmes for teachers and other stakeholders on EE,
- 6. Organise more focus-oriented capacity trainings on certain subjects of EE through innovative methodologies such as distance learning.

## 3.6. Workshop 06: "Sustainable Use of Forest Biodiversity for Better Impact on Sustainable Development" hosted by: KEHATI - The Indonesian Biodiversity Foundation

Rapporteur: Ismid Hadad, KEHATI - The Indonesian Biodiversity Foundation

#### Summary of the discussion:

Forests do not consist of timber or carbon alone. They are unique, complex and important ecosystems which have rich biodiversity resources and provide many functions and benefits for the sustainability of the environment and the survival of mankind. Therefore, governments and private groups should not address the issue of forest-use simply as a commodity or in terms of economic benefit only. The economic gains from their productive use should extend beyond a horizon of short-term benefits.

Forests provide its ecosystem services and delivers products from the variety of species. The use and trade of forest products has to be sustainable by implementing the principles and mechanisms of access to genetic resources and benefit sharing. It is important to find a way to synergise the supply, as a sustainable market will support the sustainable use of forest biodiversity and combat the exploitation of the forest. Therefore, a shift in the paradigm from forest management focusing on timber production to biodiversity conservation (i.e. use of biodiversity based products sustainably and promoting the ecosystem services such as ecotourism) is urgently needed to save biodiversity in the remaining forests.

#### Policy objectives:

The main objective is to identify the gaps on policy and actions that so far have been made by the two regions and to identify some initiatives and recommendations to fill the gaps, in achieving sustainable management of forest. This will be achieved through:

- Discussion on policy and measures of action of sustainable management of forest, which include, but are not limited to, sustainable use of forest products and forest biodiversity conservation in both regions,
- Discussion on policy and measures of action on promoting forest bio based products, including Non Timber Forest Products and forest genetic resources,

 Discussion on policy and measures of action on promoting ecosystem services.

#### **Background information:**

Forests play an important role in supporting life on earth. About thirty percent of the global total land area is covered by forests which consist of rainforests as home to fifty percent of the Earth's plants and animals. The UN Food and Agriculture Organization recently estimated that about thirteen million hectares of the world's forests are lost due to deforestation each year.

The rate of forest loss in Indonesia is accelerating and it has become one of the countries with the highest deforestation of natural forest in 2000-2005.

On average about one million ha per year were declared in the 1980s, rising to about 1.7 million ha per year in the first part of the 1990. Since 1996, deforestation appears to have increased to an average of two million ha per year.

Some of the factors stimulating deforestation are market demand (such as for timber and biofuel). The market demand stimulates over exploitation, illegal logging, land conversion and even forest fires. Furthermore policy inconsistency, weak law enforcement, the mismanagement of forest ecosystems, and climate change create greater negative impact on the sustainability of forests.

Forests deliver many benefits to human well-being which are mainly divided into two parts; the ecosystem services it provides and products it delivers (from species and to genetic level). The use of forest products and its trade should be sustainable and implement the principles and mechanism of access to genetic resources and benefit sharing.

The shifting paradigm from forest management focusing in timber production to biodiversity conservation (i.e. use of biodiversity based products sustainably and promote ecosystem services such as ecotourism) is urgently needed to save biodiversity in the remaining forests in Asia such as Indonesia, Malaysia, Vietnam, Indo China region, China, Korea, and India, while learning from the past. This becomes more urgent as demographic factors become a threat to sustainability in most of these countries.

Since we know that forests are important as one of the sources of life and their degradation is currently accelerating, it is imperative that Asian countries should protect their forests especially because Asian countries still have large portions of forest cover, where many people are rely on their existence. It is also important that as the main producer of forest products, Asian countries have to consequently manage their forest sustainably. To achieve this aim, not only is the policy at a national level important, but Asia also has to cooperate with consumer countries such as European countries, on promoting the green market policy as well as the consumer awareness that comply with sustainable forests.

#### Recommendations for policy makers:

For the sustainable management of forests in Asia, what is needed is not new standards and regulations but use of the existing international standards and criteria for creating clear and workable policies for implementation and law enforcement. These efforts need technical and financial assistance, the transfer of knowledge and skills, and capacity building. It is also recommended that the tool box of sustainable forest management is expanded by using value chain analysis, product selection matrix and risk management tools.

Forests in Asia as well as in Europe face common but multi-dimensional challenges. Ecologically they are threatened by climate change and biodiversity losses. Economically, forests face the challenges of economic globalisation, forest industries and increasing demand for bio-energy. Socially, the current situation regarding forests creates new demand for forest products and services which create social changes, threatening the livelihood of indigenous people and local communities and could exacerbate poverty.

Therefore public policies to address forest biodiversity cannot use a single policy instrument for all kind of objectives, but need a diversity of approaches to be based on a comprehensive strategy to implement a series of relevant policies for the sustainable management of forest as an ecosystem. This requires concerted efforts of communication, coordination, synergy and cooperation with all sectors and stakeholders related to forest management at the local, national and international levels.

The introduction of Payment for Ecosystem Services (PES) could enhance the sustainable management of forest biodiversity, but it needs to be implemented on the basis of appropriate environmental policies and relevant institutional frameworks.

## 3.7. Workshop 07: "Participatory Environmental Decision Making: Effective Approaches and Pragmatic Tools" hosted by: The Institute for Global Environmental Strategies (IGES) and Earth Council

Rapporteur: Masanori Kobayashi, IGES & Ella Antonio, Earth Council

#### Summary of the discussion:

The participants underlined that national sustainable development councils have provided useful platforms for multi-stakeholder policy dialogues on sustainable development, and suggested mutual learning be promoted based on lessons from bodies such as the European Environment and Sustainable Development Advisory Council (EEAC), European Environment Agency and ASEAN.

The participants also emphasised that a participatory approach is useful for resolving conflicts over the environment and natural resource use such as through focus group discussions and that external facilitators must act in confidence with the local community, based on professional expertise of facilitation/mediation, and neutrality.

They also underscored the importance of promoting a wide range of policy measures including environmental and strategic impact assessments, freedom of information, information disclosure, rating, assistance to legal proceedings and exploring good practice information sharing on multi-stakeholder involvement in, for instance, climate change mitigation (Clean Development Mechanism and NAMAs – Nationally Appropriate Mitigation Actions).

#### Policy objective:

The main objectives were as follows:

- Identifying key components of policy and institutional frameworks that are conducive to participatory environmental decision making,
- Clarifying key features of environment information related measures for curtailing the violation of environmental regulations and improving the environmental performance, particularly by business corporations,

- Elucidating processes, in which environmental information particularly environmental impact assessment reports can be used as a tool for participatory environmental decision making and reaching optimal decisions over environmental and natural resource management,
- Developing models and key features of training programmes for strengthening social capacity that will foster participatory environmental decision making,
- Developing methods for conflict resolutions through participatory environmental decision making, and
- Examining potentials and constraints of policy measures and tools proposed as models for participatory decision-making.

#### **Background information**

Broad and equitable public participation in decision-making is vital to facilitate effective and optimal natural resource and environmental management. Access to environmental decision-making is one of the key prerequisites for participatory environmental decision making. NGOs and local community leaders still struggle to come to grips with environmental decision making processes. Conflicts emerge over a wide range of natural resource use issues that range from mining, land use conversion, hydropower construction, landfill, chemical effluent and residue, shrimp farming, and many others. Various policy measures and tools for promoting participatory environmental decision-making have been introduced to respond to peculiar political, socio-economic and cultural conditions of Asia and the Pacific, while integrating standard policy models that have evolved from developed countries. The Workshop 07 was intended to take stock of good practices in implementing various methodologies for promoting participatory environmental decision making and exchange information and experiences between Asian and European stakeholders.

#### Recommendations for policy makers

Suggestions for potential collaboration between Asia and Europe:

 Multi-stakeholder sustainability policy dialogue platforms such as national sustainable development councils need to be revitalised and strengthened building upon the mounting momentum towards the Rio + 20.

- Asia–Europe collaboration should be promoted in the areas of training on mega-trend analysis, scenario building, policy planning, conflict resolution and mediation,
- Asia-Europe collaboration should be promoted on good practice information and knowledge sharing regarding multi-stakeholder involvement towards promoting sustainability policies including climate change mitigation (CDM, NAMAs – Nationally Appropriate Mitigation Actions) and adaptation,
- Asia-Europe institutional collaboration and coordination should be facilitated through utilising existing mechanisms and networks,
- Undertaking joint study on institutional mechanisms for environmental governance such as the Environmental Governance Watch to develop standards for assessing governance and designing rewards and penalty/ sanction systems.

# 3.8. Workshop 08: "Developing Sustainable Production Consumption to Foster Food Security" hosted by: The Energy and Resources Institute (TERI) and The Socio-Economic and Environmental Research Institute (SERI)

Rapporteur: Dr. Shilpi Kapur, Resource and Development Economics, Resources and Global Security Division, The Energy and Resources Institute (TERI)

# Summary of the discussion:

The workshop approached the threat of a food crisis as an opportunity for a critical rethinking of enhancing sustainability in existing Production Consumption Systems (PCS). The looming food crisis in Asia and the dynamics of globalisation is challenging food security in dimensions ranging from food oversupply to tremendous shortcomings in nutritional intake. This workshop would focus on bringing out key policy relevant issues pertaining to PCS in food systems that could be a significant area for the Rio+20 and ASEM summit.

It examined the scope for bi-regional level cooperation between Asia and Europe. A holistic approach to integrating sustainable PCS with food security would need the careful examination of the environment along with evolutionary and ethical needs. Such an approach has policy implications for ensuring food security both from the northern and southern perspective and it presents a need for careful re-examination of existing processes at the local, national, regional and international levels.

# Policy objectives:

The main objective is to approach the threat of a (the various approaching) food crisis as an opportunity for a critical rethinking about enhancing sustainability in existing PCS that in turn could pave the way for a green economy.

Growing demands for safer, healthier, higher quality food and the increasing use of land for production of bio-fuels requires new knowledge for actions that address social, environmental, and economic challenges. Though the crisis spreads along a local and regional level, its causes are global and solutions must be found at both the local and global level.

Other objectives are to provide the opportunity to share experiences, gain insights (identifying best practices, but also discover the challenges through experiences) and consult on ways forward (developing recommendations for action that could support the promotion of sustainable PCS) for achieving food security in the regions of Asia and Europe.

# **Background information**

Agenda 21 states that the major cause of the continued deterioration of the global environment is the unsustainable pattern of consumption and production, particularly in industrialised countries. That is a matter of grave concern, aggravating poverty and imbalances.

In a world of expanding globalisation and significant technological advances, changes in lifestyles and over consumption by the affluent population have increased the demand for processed and imported food and packaging, leading to structural changes in food production systems which have a huge impact on the environment and causes social and political imbalances.

Making food systems sustainable with respect to the natural processes of the earth and ensuring access and use of food by all present and future generations for maintaining an active, healthy life becomes essential.

From the perspective of the global south, sustainable PCS have immediate direct linkages to livelihoods and the future development of people in developing nations.

However, actual inter dependencies and therefore potential threats for local communities due to the global food markets should not be neglected. Local solutions for efficient and accessible production and distribution are often ignored by the dominant structures of production, distribution and marketing of food. For example, new ways of linking productive activities in the suburban and surrounding rural regions to the consumers, reduction in greenhouse gases and other pollutants caused by long-distance transportation and storage can be discussed to foster food security and also reduce dependence from global distribution structures.

# Recommendations for policy makers:

# Asian-European Cooperation:

- Better exchange about social contracts on how to deal with increasing disparities between countries and among the population in these countries,
- Strengthen research and development cooperation on adaptation and the design of regulations for land acquisition,
- Develop agricultural models through peer-to-peer learning.

# Food security and climate change:

- PCS should be developed also from the perspective of poverty reduction and increased resilience against climate change and other external shocks,
- Climate change adaptation is an important contribution for food security; therefore reallocate national funds towards climate change adaptation cooperation in global Europe Asian Funding
- Reduce greenhouse gas emissions e.g. via support of sustainable and ecological production systems.

# Globalisation:

- Rethinking food security through re/localisation of PCS as second step in greening the exchange in non-locally grown products,
- Take into account but the greening of all steps along the Production Consumption Systems,
- Ensure a fair share of profit margins between all producers.

3.9. Workshop 09: "A Model for Green Growth through Sustainable Consumption and Production and the Role of Eco-innovation" hosted by: Asia Europe Foundation (ASEF), European Commission (EC), SWITCH, Korean Mission to the European Union, POSRI, Consumers International

Rapporteur: Frans Verspreek, SWITCH and Grazyna Pulawska, ASEF

# Summary of the discussion

The workshop was the right platform to share experiences and exchange views on the Asian and the European approach on Sustainable Consumption and Production (SCP) and eco-innovation, which we see as important tools to achieve a green economy.

In fact, resource efficient thinking is developing momentum in the Asian region, where more and more countries include this in their National Development Strategies and/or develop SCP policies.

The EU is working closely with other countries to promote a shift with SCP towards resource-efficient economies; the event should kick-start a process in which Asia and Europe constitute a critical mass in determining sustainable pathways to a shared future.

Outcomes of the workshop(s) should feed into two international meetings that are signposts for an Asia-Europe voice, namely, the 8th ASEM Summit, Brussels, 4 – 5 October 2010 and the Earth Summit 2012, follow-up to the 1992 Earth Summit in Rio de Janeiro, Brazil (Rio+20).

# Policy objective

SCP offers a resource-efficient alternative for long-term development. The EU is working closely with other countries to promote a shift towards low carbon and resource efficient economies through SCP. This includes a strong involvement in the Marrakech Process (roundtables on SCP have been organised in China on 3 occasions). The EU Action Plan on Sustainable Consumption and Production and Sustainable Industrial Policy is an important contribution both to the Marrakech Process and to the 10-Year Framework of Programmes, as a regional action plan.

The International Panel for Sustainable Resource Management also plays a significant role in fostering our joint objectives of sustainable resource use. SCP, resource efficiency is developing a momentum in the Asian region as well, where more and more countries include this in their National Development Strategies and/or develop SCP programmes and policies.

In this sense, it is important to share experiences, exchange views on the Asian and the European approach on SCP. In addition, the SWITCH project, which links together the two continents by SCP projects, is already delivering great results, which should be shared with the greater public.

The transition of our production and consumption patterns towards sustainability will require innovations in goods, services, business models and economic systems, commonly referred to as eco-innovation. The introduction of environmental and innovation policies is a pre-requisite for the development and diffusion of green technologies and other eco-innovative solutions in order to achieve the goals of a low-carbon, eco-efficient economy.

The second part of the workshop focused on assessing the policies and market factors which encourage the development, uptake and diffusion (particularly from developed to developing countries) of eco-innovations. The workshop reviewed the different instruments (standards, taxes, incentives measures and permits) used by EU Member States and Asian partners (e.g. Korean Green Growth strategy) to support eco-innovation development at national and regional level.

# **Background information**

# ENVforum:

The Asia-Europe Environment Forum is a platform for dialogue and debate on sustainable development and environment issues in Asia and Europe.

### It serves as:

- The only multi-stakeholder forum on environment between the two regions,
- A recognised reference point for Asia and Europe consensus on sustainable; development,
- An interface between government and civil society for policy recommendations,

- An Asia-Europe network on sustainable development, and
- A contributor to the agenda of the ASEM Environment Ministerial and other Asia-Europe Meeting (ASEM) fora.

# SWITCH-Asia Programme:

SWITCH-Asia is a regional programme, financed under the current Regional Strategy for Asia 2007-2013. The programme aims to promote economic prosperity and poverty reduction in Asian countries through sustainable growth and reduce the environmental impact. The overall objective is to enhance sustainable production (more resource efficient products) and sustainable consumption (behaviour patterns of consumers) by mobilising the private and public sector in Asia.

The Programme is composed of three main components:

Call for proposals: Grant projects - partnerships of organisations from EU and Asia working to help large numbers of SMEs and/or consumers to practise sustainable production and consumption. The first SWITCH Call for Proposals was launched in November 2007. More than three hundred applications for funding were received. After evaluation of proposals, almost twenty-three MEUR of funding was awarded in the form of fifteen grant projects. There are six projects based in China, two each in Vietnam and Sri Lanka, one each in India, Nepal, Thailand, Bangladesh and Pakistan. The second Call for Proposals was launched in November 2008, again with a budget of twenty-three MEUR; the evaluation of the projects will be completed in July 2009.

The SWITCH Networking Facility was launched to collect results and experiences from SWITCH projects and make them available in various formats to a range of audiences. Following an international tender procedure, the SWITCH Networking Facility was launched in autumn 2008. The facility is run by the UNEP/WI Collaborating Centre on SCP, together with the Wuppertal Institute for Climate, Environment and Energy.

The SWITCH Policy Support Component provides technical assistance to governments that are implementing policies on sustainable consumption and production. It is currently in preparation.

# EU SCP Policies – state of play

Progress with EU initiatives on SCP includes Retail Forum and Food SCP Round Table and product policy (revised Eco-design, Ecolabel and EMAS adopted, Energy label agreed, Green Public Procurement (GPP), LCA tools). In addition to the development of new eco-design implementing measures, eco-labels and GPP criteria for various product categories, the Commission is starting to prepare the review of the Ecodesign Directive (foreseen in 2012). DG ENV closely collaborates with ENTR (Enterprise and Industry) and TREN (Energy and Transport) for this. The Commission will ask Member States to accept and use the common GPP criteria at the national level. DG ENV will work with DG MARKT on mainstreaming of GPP into public procurement practice.

# International work on SCP:

The international work is focused on the development of an international frame (10-Year Framework of Programmes) on SCP at the 18-19th sessions of the United Nations Commission on Sustainable Development (CSD). On this 10YFP, it would be crucial that the EU shares its experience and knowledge, being the only region that already has a regional SCP framework in practice, but at the same time listen to the views of other key players.

The EU hopes to have a strong 10YFP as the outcome of CSD19 in 2011, in line with our EU priorities. The "Rio+20 Conference" in 2012, with a strong focus on green economy, will further offer an opportunity to follow-up on this 10YFP, address SCP and to put greening the economy on top of the global agenda.

# Recommendations for policy makers

- Session covered from the 3 angles of government, business and consumers. On-going actions should be mentioned,
- SWITCH is needed at different levels to reach ambitious goals,
- A good company (Korean) BC was presented, not only for the company itself but also as leverage for its peers and suppliers,
- The role of Consumers was addressed. This is essential because consumers are becoming a stronger driving force. However, several preconditions remain to be fulfilled (empowerment, transparent information, etc.),

- Government position essential for creating right-enabling conditions and developing and setting incentives,
- Platforms (at different levels) to exchange lessons learned are essential to create synergy,
- EU launched SWITCH-Asia programme (insights given).

# 3.10. Workshop 10: "Educating Audiences in Creating Demand for Sustainable Consumption and Production: The Role and Responsibility of the Media, Entertainment and Creative Industries" hosted by: SENSA, Media Alliance and Deutsche Welle

Rapporteur: Lisa Guiraud, Media Alliance

# **Summary of discussions:**

The role and responsibility of the media in the engagement, awareness and behaviour change of mass audiences is critical. Close involvement of the media, entertainment and creative industries can massively impact popular opinion and educate mass audiences. This workshop examined the media and the responsibility of the media, entertainment and creative industries along two tracks:

- The media's role, responsibilities and challenges in reporting climate change and environmental issues, and
- The use of a complete marketing mix and the establishment of multisector, multi-stakeholder partnerships to create awareness on the issue of climate change adaptation and mitigation.

Synovate's study reveals that the world's population remains as concerned as ever about the effects of climate change. Across all eighteen countries surveyed in the three rounds of research conducted by Synovate, thirty percent of people in 2010 and 2008 said they were 'very concerned' about climate change, versus twenty-nine percent in 2007. Seventy percent of the respondents say that they are already doing something to help reduce climate change and eighty-eight percent believe that businesses carry the biggest responsibility. When respondents were asked what role the media should play in the issue of climate change, seventy-two percent stated that it is the media's responsibility to not only inform the public, but to clarify climate change and its effects. Evidently, the study stresses the pivotal role played by the media in informing as well as educating the public, through the creation of high-quality traditional and new media products on climate change (documentaries, TV series', news pieces, public service advertising, music and culture) to shape both public opinion and government action.

Environmental reporting however is not without hurdles and struggles. The issue of reporting vs. advocating climate change continues to be a struggle for iournalists, where a number of them feel that they have no role in advocating or educating people on climate change, as their role is limited to reporting. The workshop also heard of the need to translate scientific information into layman terms and the creation of scientific topics into interesting stories, for the benefit of the audiences. The best method to overcome problems on environmental reporting is through sensitising, capacity building initiatives, and media training workshops that are not limited to reporters, but include editors and other gatekeepers such as those organised by Internews Earth Journalism Network, Deutsche Welle and The Media Alliance, Additionally, international events such as the Deutche Welle's Global Media Forum 2010, the Swedish International Development Cooperation Agency (SIDA), The Media Alliance, the Asian Development Bank (ADB), the International Union for Conservation of Nature climate change activities offer a platform for media professionals to get together and seek ways actively address environmental issues and raise public awareness.

Advertising agencies, such as Dentsu, recognise their responsibility in the historical process of the growth of consumerism. They have come to the awareness of advertising agencies having encouraged consumption of the earth's natural resources and the disposal of consumer goods in representing global brands and advising them on the most effective strategies to penetrate the minds and psyche of mass populations of consumers.

Additionally, the workshop placed emphasis on the importance of multi-sector, multi-stakeholder partnerships such as media companies (in providing media space/airtime for pro-social campaigns), advertising and creative agencies (in contributing in-kind creative and production services), international development and donor agencies working in sustainable issues and private sector companies supporting corporate social responsibility initiatives (to fund and endorse public awareness campaigns on climate change). Initiatives such as The Media Alliance's Climate Change Campaign leverages the expertise and resources of these stakeholders to create high-end media production and campaigns with an aim of changing attitudes and behaviour on sustainable consumption and production.

# **Policy objective**

The main objectives were to:

- stimulate participation of and dialogue among the five sectors: (1.)
  media companies, (2.) Ad/PR and creative agencies, (3.) international
  organisations, (4.) private sector companies and (5) creative arts required
  for mounting a sustainable media, entertainment and communications
  initiative aimed at massively impacting large numbers of consumers and
  audiences across the Asia-Pacific.
- initiate discussions with the regional, national and media interests to implement awareness campaigns in building audience awareness of green consumption,
- set the precedence for the growth of media companies in acknowledging their role and responsibility in educating audiences on sustainable consumption and in stimulating green economies,
- provide an impetus to the Music & The Environment Initiative (MEI) on climate change proposed by SIDA/SENSA and The Media Alliance.
- demonstrate both the practices of Media and CSR in both Europe and Asia in engaging audiences on sustainable development issues.

# **Background information**

The Copenhagen UN Climate Change Conference (COP 15) has failed to accomplish a meaningful accord that will ensure any effective action on climate change. The failure to secure the strong commitment of governments to regulate business and provide incentives to develop environmentally sustainable energy, transportation, manufacturing and consumable goods has impeded the change in carbon emissions and the consumption of fossil fuels required to alter the rate of climate change.

Consumer awareness and a change in the behaviour of mass populations of consumers globally are imperative in changing the market demand for environmentally sustainable energy and consumer goods. Massive shifts in consumer behaviour and demand are required to pressure government and business to evolve policies and practices toward sustainable consumption and achieve the development of a green economy.

Current global commercial advertising spend currently stands at approximately four billion USD per year. Less than one percent of that amount is spent on environmental awareness or change behaviour campaigns. If mass populations are to change patterns of consumption that are detrimental to the health of the planet, it will be necessary to influence consumer demand using the same, commercial advertising and marketing principles that have given rise to a global consumer society.

The role and responsibility of the media in accomplishing the engagement, awareness and behavioural change of mass audiences is critical. Close involvement of the media, entertainment and creative industries can massively impact popular opinion and educate mass audiences.

# Recommendations for policymakers:

- Incorporate ideas and talent from advertising and creative industries to create high-end quality media products targeting all levels of audiences,
- Establish a database that is easily accessible to journalists where they
  can identify reliable and relevant news, data, and contact details of
  climate change experts to assist them in their reporting,
- Compel journalists to sign up for a platform of ethical reporting to achieve correct and objective reporting on climate change,
- Intensify efforts to develop climate change training reporting workshop not only limited to journalists, but also for editors and gatekeepers on climate change reporting,
- Encourage the use of information communication technology and social networking platform in communicating climate change,
- Encourage multi-stakeholder partnerships to create sustainable public awareness campaigns to educate audiences, change attitudes and behaviour on sustainable consumption and production.

# 3.11. Workshop 11: "The Market Potential to Drive Sustainable Development in Asia: Global Funding Mechanisms for Sustainable Development, Energy and Climate Change" hosted by: GERES and Nexus – Carbon for Development

Rapporteurs: Swan Fauveaud and Marion Verles, GERES

# Summary of discussions

Clean Development Mechanisms (CDMs) are locked into industrial projects rather than sustainable development projects. A very few small scale development projects benefit from this financing mechanism. Only eight projects have been developed by NGOs while there have been 1484 projects from the private sector.

In Cambodia, Groupe Energies Renouvelables, Environnement et Solidarités (GERES) succeeded with improved dissemination of cook stoves is a starting point to show that carbon finance has the capacity to scale up clean technologies.

In India, the situation is becoming critical due to climate change. A recent study showed a decrease in rain and snow fall. Glacier size is also reducing, impacting available water which then impacts agriculture and human health through access to drinking water. The recent floods on 6 August 2010 caused a lot of damage and death. It is impossible to confirm if the latter was really connected to climate change, but demonstrates nonetheless, the vulnerability of these areas.

Adaptation to climate change is a key priority.

Carbon markets can help but there are bottlenecks and barriers to reach the carbon market for development. These include the transaction costs of the CDM, a lack of transparency, lack of adapted methodology, cultural gaps between development stakeholders and CDM and carbon markets.

# From Carbon to Market, Asia-European case studies

Green House Gas (GHG) emissions will increase by thirty percent by 2020 if no measures are taken. A target is to get to thirty-nine GT by 2030.

The Cap and Trade mechanism is a powerful mechanism proven to work efficiently (cost reduction through trading). Other mechanisms include subsidies, regulation and taxation.

China is setting up its own national voluntary standard focusing on agriculture and forestry projects (Panda Standard) which is a sectoral approach rather than project by project one. Europe is in bilateral discussions with China to ensure compatibility of the mechanisms and fungibility of some credits.

The market will remain fragmented for the next few years, at least until 2015 (COP15 failure). Carbon worth USD 144bn in 2009 according to World Bank.

There is a strong lack of ethics and transparency in the market. This has been demonstrated through the HFC 23 scandal, VAT fraud, disproportionately large investment barriers and unfair transactions. However, it is worth saving the market. If it was well implemented it could drastically foster investment in clean energies in developing countries.

It is important to rethink and redesign the value chain to protect communities' interest and maximise the funding going back to the projects and the communities. Nexus approach is to keep monitoring of a new design of the value chain which enables reduced transaction costs and maximised revenues for development stakeholders.

# **Policy objectives**

Carbon markets are a very powerful tool to foster transition to a low carbon economy and to drive investments towards poor countries but there remains a need to:

- Influence the Clean Development Mechanism (CDM) political framework,
- Influence the carbon markets political framework, especially in Europe where it is well developed,
- Show the emergency of supporting adaptation to climate change in most vulnerable areas of the world, especially around water availability in Asia,
- Contain GHG emissions to levels.

# **Background information**

# CDM and carbon market background information

The CDM is a means for industrialised nations (with quantified emissions reduction objectives) to invest in greenhouse gas (GHG) reduction projects in developing countries. Initiated by public or private investors, these projects generate Certified Emission Reduction Units (CER).

The CDM was designed with the idea of enabling industrialised countries to lessen the cost of emissions reduction and make it possible for developing countries to attract additional private investment that would have a favourable socio-economic impact. Host countries would thereby have a basis to stimulate foreign investment and technology transfer, and contribute to sustainable development.

At the present time, private corporations are the main users of these mechanisms, although a number of institutions and NGOs are also starting to implement CDM projects.

The sectors concerned are energy, waste handling, industry, the residential and tertiary sector, transportation, agriculture, and forestry. Eligibility is open to projects for energy conservation, fuel switchover, renewable energies, or forestation/reforestation (carbon sequestration).

To assist industrialised countries in achieving their reduction objectives, a "monetisation" of GHGs was devised, with the establishment of a "greenhouse gas market," and in this framework a market value is set for GHGs. A country can thereby convert the unused share of its emission rights into "negotiable emissions permits" and sell them to countries that have exceeded their emissions levels. This exchange can also take place between businesses that have reduction objectives within the same country.

Mandatory exchange markets have thus developed in a number of countries that signed the Kyoto Protocol. Thus, the tonne of carbon derived from CDMs is one of a number of possible exchange currencies on these markets.

The European Union put in place the European Union Emission Trading System (EU ETS) to achieve its objective of eight percent reduction (2008-2012). It has been in operation since January 1, 2005 and involves some twelve thousand industrial sites in Europe that are large emitters of greenhouse gases. Businesses are given emission quotas through National Quota Allocation Plans (NQAP) and can exchange quotas. Businesses can use CERs to fill part of

their emission quotas. However, there is a ceiling on this use and businesses must also make arrangements to reduce their own emissions. Any business not complying with its commitments will be penalised per tonne of CO2 emitted above its guota.

Japan, Australia, and New Zealand are currently looking into how they can also set up such markets.

Selling prices of CERs on the official market fluctuate tremendously from one mandatory commitment market to the next. For example, on the European market (EU ETS) an excessive allocation of emissions permits to businesses in 2007 caused the CERU rate to plummet. After shooting up to over twenty euros, a tonne of CO2 could only fetch about € 0.2 euro in May 2007. With commitments under the Kyoto Protocol kicking in on January 1, 2008, distribution of the number of emissions permits was cut by seven percent for 2008. Credit exchanges within the market in early 2008 were above twenty euros.

In 2007, the total volume of CER transactions amounted to 551 million tonnes of CO2 equivalent, with an estimated value of 7.4 billion dollars. Financial flows from carbon transactions therefore achieved a significant level. But although emissions reductions were created in emerging countries, the latter are getting too small a piece of the cake.

# Recommendation for policy makers

Reform of the CDM framework for a better integration of least development countries and associated stakes:

- Better integration of the biomass energy (energy of the poor),
- Recognition of the notion of suppressed demand.

Shaping of the Carbon market to reduce the share of industrial projects (such as HFC 23) and to foster credits from social and development projects:

 Support the creation of projects developers' alliance provide grant funding for capacity building of local experts).

EU to lead the climate change negotiations. Emissions reduction objective to be increased to -thirty percent from actual -twenty percent.

Need for common governance at the UN level of the carbon market:

- Set common emission reduction targets over long term period to ensure certainty in the markets (2020 targets),
- Set common standards and implementation measures to ensure ethics and transparency in the market.

3.12. Workshop 12: "Sustainable Chemicals Management: Responsible Production and Chemical Leasing" hosted by: Beratungsgesellschaft für integrierte Problemlösungen (BiPRO GmbH), United Nations Environment Programme (UNEP), United Nations Industrial Development Organization (UNIDO).

Rapporteur: Christina Raab, BiPRO GmbH and Grazyna Pulawska, ASEF

# Summary of the discussion

One of the challenges faced when greening economies is to incorporate environmental sustainability with economic growth and to create benefits for the environment, human health, civil communities as well as business and trade. The purpose of the workshop was to introduce two innovative and integrative solutions – Responsible Production and Chemical Leasing, which are particularly relevant for developing and emerging regions and small and medium sized enterprises. Both approaches target sustainable patterns in production processes, chemicals consumption and chemicals risk management while at the same time integrating the economic dimension. Responsible Production and Chemical Leasing require a rethinking of chemicals management and related business practices and promotes intensified collaboration along the value chain, cross-linking of know-how and stakeholder engagement.

The principles and concepts of Responsible Production and Chemical Leasing were explained in detail during the workshop. Practical experiences were shared from pilot projects in Europe and Asia and the added-value with regards to environmental and safety performance, were demonstrated by practical examples. In addition Chemical Leasing quality indicators and Responsible Production assessment tools were presented that allow for monitoring of sustainability progress.

# **Policy objectives**

The main objectives were:

 Exchange of experiences between Europe and Asia on optimal chemicals management, related to risk and adverse effects of chemicals to the environment and human health.

- Contribution to common actions that can be brought forward in the scope of the SAICM process (and other international chemicals policy approaches),
- Support a better mutual understanding of chemicals legislation in Europe (in particular REACH) and consequences for countries.
- Creating awareness for innovative and integrative sustainable practices and setting impulses for bi-lateral partnerships.

# **Background information**

Sustainability approaches in materials management and production are a prerequisite for sustainable economies, ecologies and growth. In particular in chemicals and producing industries, sustainable business strategies may, however, require a shift in paradigm away from high sales volume of chemicals towards a value-added, integrated approach and extended responsibility throughout the entire life cycle. The service oriented business model of Chemical Leasing provides concrete solutions to questions of sustainability within enterprises and leads the way to innovative business practices for sound chemicals management and sustainable production.

Unlike traditional business models Chemical Leasing is based on a benefit-oriented pricing (e.g. €/m2 cleaned surface) instead of a volume-based pricing (e.g. €/t solvent) and on the delivery of goods in combination with services/know-how. It thus bundles motivations of involved partners towards intensified cooperation, continuous process optimisation and reduced materials consumption.

In many Asian countries, Small and Medium Sized Enterprises (SMEs) form the backbone of the industrial sectors where hazardous chemicals are manufactured, transported, repackaged and used. Unsafe manufacturing and handling operations in SMEs result in negative environmental, economic, health and social impacts. In order to set up effective safety management systems and tools to understand, prevent and respond to accidents the whole value chain must be engaged, and risk information must be made available to business partners, end customers and concerned communities.

There is a critical need today for the aggregation of existing management tools into an integrated guidance on safer production and safer handling of chemicals, particularly addressing suppliers and users in SMEs. UNEP's Responsible Production has brought the best of existing approaches for chemical hazard

management and emergency preparedness into an easily understandable and practical framework. The Responsible Production approach combines the components and benefits of Safer Production, APELL (Awareness and Preparedness for Emergencies at Local Level) and CSR (Corporate Social Responsibility).

# Recommendations for policy makers

- Decouple economic growth from the consumption of natural resources and waste generation: efficiency increase is one solution
- Plenty of success stories regarding sustainable chemicals management exist on an international level including Asia showing the feasibility of the concept
- Up scaling of the activities on sustainable chemicals management is required on a larger magnitude which entails: (1) Streamlining the concepts and (2) Prioritising the activities
- Up scaling should follow a certain vision with clearly defined targets which are followed throughout the up scaling phase
- Sustainable production and consumption shall be addressed as one priority aim including eco-design, responsible production, sustainable and safe chemical management and risk prevention

# **ANNEXES**

# **CONFERENCE PROGRAMME**

# DAY 1 - 1st September, Wednesday

10h00-12h00 Briefing for Workshop Hosts and Rapporteurs (by

invitation only)

12h00-14h00 LUNCH

By invitation only -- for workshop hosts and rapporteurs.

14h00-18h00 Registration

# **OPTIONAL SESSION**

16h00-18h00 Film Screening "Home"

18h00-19h00 Panel Discussion on "Home"

Moderator:

Ms. Sol Iglesias

Director, Intellectual Exchange Asia-Europe Foundation

Mr. Daniele Ponzi

Lead Environmental Specialist and ADB GEF Coordinator

Environment and Safeguards Division

Asian Development Bank

Mr. Masanori Kobayashi

Senior Coordinator

Institute for Global Environmental Strategies

and

Mr. Stuart Ward

Information and Communication Officer Swedish Environmental Secretariat for Asia

19h30-21h00 WELCOME DINNER

And administrative announcements.

# DAY 2 - 2<sup>nd</sup> September, Thursday

08h00-12h00 Registration for Participants

# **OPENING PLENARY SESSION**

09h00-09h45 Welcome Remarks

Moderator:

Mr. Christian Hegemer

Director

Institute for International Co-operation

Hanns Seidel Foundation

Dr. h.c. mult. Hans Zehetmair

Chairman

Hanns Seidel Foundation

H.E. Dominique Girard

**Executive Director** 

Asia-Europe Foundation

Mr. Hideyuki Mori

President

Institute of Global Environmental Strategies

and

Ms. Annamaria Oltorp

Regional Team Director, Regional Cooperation Asia Swedish International Development Cooperation Agency

09h45-10h45 Keynote Addresses

Dr. Markus Söder

Minister of Environment and Health, State of Bavaria, Germany

Prof. Klaus Töpfer

Former Executive Director, United Nations Environment

Programme

and

Prof. Rachmat Witoelar

Indonesian President's Special Envoy for Climate Change, Executive Chair, Indonesian National Council on Climate

Change

10h45-11h15 COFFEE BREAK

And conference photo session.

# SPECIAL SESSION

# 11h15-12h15 Environment Outlook Reports in Asia and Europe

Moderator:

Ms. Sol Iglesias

Director, Intellectual Exchange Asia-Europe Foundation

Mr. David Stanners

Head of International Cooperation European Environment Agency

Dr. Raman Letchumanan

Head of Environment Unit

Association of Southeast Asian Nations Secretariat

and

# Mr. Daniele Ponzi

Lead Environmental Specialist and ADB GEF Coordinator Environment and Safeguards Division Asian Development Bank

12h15-13h00 LUNCH

# **BREAKOUT SESSION**

13h00-15h00 Name of Workshop

**WS01** - Biodiversity, Ecosystem Services and Climate Change: Exploring Links and Setting Actions into Motion

WS02 - Concentrated Solar Power as a Feasible Part of the European and Asian Energy Mix? From Desertec EUMENA to Gobitec?

WS03 - Environmental Governance: Trust and Capacity Building through Networking: The Examples of Regional Networks Focusing on Law Enforcement and Compliance Workshop Hosts

ASEAN Centre for Biodiversity and

GTZ

HSF Korea and Gobitec Research Network

REC and APJA (member of AECEN) **WS04** - Environmental Governance for Sustainable Development in Asia and Europe: The Role of Asian and European Institutions EDC, UNU-CRIS, ISDR and University of Naples "Federico II"

**WS05** - Climate Change: Environmental Education for Sustainable Development in Asia and Europe<sup>1</sup>

ASEAN Secretariat, HSF, UNFP

**WS06** - Sustainable Use of Forest Biodiversity for Better Impact On Sustainable Development KEHATI-The Indonesian Biodiversity Foundation

**WS07** - Participatory Environmental Decision Making: Effective Approaches and Pragmatic Tools

IGES and Earth Council

COFFFF BRFAK

15h30-19h00 Workshops (Continued)

20h0022h00 DINNER

15h00-15h30

Hosted by Hanns Seidel Foundation.

Remarks:

Mr. Ulrich Klingshirn

Director

Hanns Seidel Foundation, Indonesia

# DAY 3 - 3rd September, Friday

# **BREAKOUT SESSION**

09h00-10h30 Name of Workshop

Workshop Hosts

**WS08** - Developing SCP Systems to Foster Food Security

TERI and SERI

**WS09** - A Model for Green Growth through Sustainable Consumption and Production and the Role of Ecoingovation

ASEF, EC, SWITCH, Korean Mission to EU, POSRI, Consumers International WS10 - Educating Audiences in Creating Demand for Sustainable Consumption and Production: The Role and Responsibility of the Media, Entertainment and Creative Industries SENSA, Media Alliance and Deutsche Welle

**WS11** - The Market Potential to Drive Sustainable Development in Asia: Global Funding Mechanisms for Sustainable Development, Energy and Climate Change **GERES and Nexus** 

**WS12** - Sustainable Chemicals Management: Responsible Production and Chemical Leasing BiPRO GmbH, UNEP, UNIDO

10h30-11h00 COFFFF BRFAK

11h00-13h00 Workshops (Continued)

13h00-14h00 LUNCH

Working lunch for workshop rapporteurs.

# SPECIAL SESSION

14h00-15h15 Reflections on Preparations for Rio+20 for Asia and Europe

Moderator:

Mr. Stuart Ward

Information and Communication Officer Swedish Environmental Secretariat for Asia

# Mr. Surendra Shrestha

Director, Strategic Resource Mobilization/Special Initiatives, United Nations Environment Programme

Discussants:

# Prof. Cielito Habito

Director, Ateneo Center for Economic Research and Development, Ateneo de Manila University

### Ms. Marta Bonifert

Executive Director, Regional Environmental Center for Central and Eastern Europe

15h15-15h30 COFFEE BREAK

# CLOSING PLENARY SESSION

# 15h30-16h30 Report on Workshop Recommendations

Moderator:

# Ms. Grazyna Pulawska

Project Executive, Intellectual Exchange Asia-Europe Foundation

# Ms. Clarissa Arida

Director, Programme Development and Implementation ASEAN Center for Biodiversity

# Mr. Ulrich Klingshirn

Director

Hanns Seidel Foundation, Indonesia

and

# Dr. Heinz Leuenberger

Director

United Nations Industrial Development Organization

# 16h30-17h00 Conclusions and Closing Remarks

# Mr. Christian Hegemer

Director

Institute for International Co-operation

Hanns Seidel Foundation

and

# Ms. Sol Iglesias

Director, Intellectual Exchange Asia-Europe Foundation

# 20h00-22h00 CLOSING DINNER

# ANNEX CONCEPT PAPER

# **ABOUT THE CONFERENCE**

The Asia-Europe Environment Forum 2010 Conference "A Green Future: Asia and Europe Growing Sustainably" presents an effort to provide a platform for meaningful Asia-Europe exchanges via policy dialogue, cooperation and engagement between governments and private and civil society actors.

Using the lenses of a green economy, biodiversity and ecosystem services and environmental governance, the conference will take a multi-sectoral view of the sustainable management of natural resources. It aims to provide insights to the current path of development versus its sustainability in order to fill the gaps of current development trends and contribute towards a sustainable future.

The significance of regional and multilateral initiatives, both within the political community as well as among civil society organisations, will also be discussed. Moreover, the conference aims to incentivise countries in the two regions to intensify policy dialogue across local, national, regional and bi-regional levels.

# **BACKGROUND**

Achieving sustainable development by 2015 is one of the United Nations (UN) Millennium Development Goals (MDGs) that has been incorporated into many political documents, including Asia-Europe Meeting (ASEM) statements. At the same time, emerging industry sectors as well as a growing population will continue to put enormous pressure on governments to deliver public goods. The scarcity of natural resources and the need for a more sustainable approach towards development will be a key issue in the following years.

<sup>\*</sup> ASEM now brings together 43 partner countries (Austria, Belgium, Brunei Darussalam, Bulgaria, Cambodia, China, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Indonesia, India, Ireland, Italy, Japan, Korea, Laos, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mongolia, Myanmar, the Netherlands, Pakistan, the Philippines, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia, Spain, Sweden, Thailand, United Kingdom, Vietnam), the European Commission and the ASEAN Secretariat.

Representing almost two-thirds of the world's population, both Asian and European countries have an interest to jointly secure sufficient natural resources to maintain or raise their respective social and economic standards. With only five years to go to achieve the MDGs, the conference will use the lenses of: (1) green economy; (2) biodiversity and ecosystem services; and, (3) environmental governance, to examine the current state of sustainable development in Asia and Europe.

It seeks to identify opportunities for strengthened bi-regional co-operation in the area of sustainable development and resource management by discussing the national, regional, bi-regional and global policy frameworks that are currently in place.

The event seeks to kick-start a process in which Asia and Europe constitute a critical mass in determining sustainable pathways to a shared future. It aims to feed into two international meetings that are signposts for an Asia-Europe voice, namely, the 8<sup>th</sup> ASEM Summit that will be held in Brussels, Belgium, on 4<sup>th</sup> – 5<sup>th</sup> October 2010, and the Rio+20 Earth Summit 2012, a global meeting that will follow the 1992 Earth Summit in Rio de Janeiro, Brazil, and the 2002 World Summit on Sustainable Development in Johannesburg, South Africa.

# **CONFERENCE OBJECTIVES**

Specifically, the conference intends to:

- Contribute to sustainable Asia-Europe co-operation at the bi-regional level;
- build trust and confidence between Asian and European countries around major policy debates and international discussions; and,
- develop action-oriented recommendations for the ASEM process and provide a voice for ASEM in international policy dialogue (including in the Rio+20 Earth Summit 2012).

# CONFERENCE FORMAT

Thirteen workshops jointly hosted by partner organisations in Asia and Europe will be held within the framework of the event. Such a format provides space for in-depth discussion of various aspects and implications of scarce resources in present and future settings.

<sup>\*</sup> For more information on the workshops, please refer to the "Conference Brief".

Cross-cutting questions will also evaluate measures that can be taken jointly by Asia and Europe to mitigate the political, social and economic effects of growing resource scarcity on local, national, regional and bi-regional levels.

The final outcome will take into account both the various discussions generated during the conference as well as conclusions from previous ENVforum roundtables. This should result in a set of relevant action-oriented recommendations with an outlook to the future and concrete proposals for joint action that could be useful to ASEM governments at the local, national, regional and bi-regional levels. It will be disseminated through channels contributing to the 8th ASEM Summit in October 2010 in Brussels, Belgium, the UNFCCC COP 16 in Mexico City, Mexico, as well as other international fora.

Moreover, the conference is designed to catalyse stronger Asia-Europe action contributing toward the ASEM agenda, as the world gears toward the Rio+20 Earth Summit 2012.

# **PARTICIPANTS**

Approximately 150 ASEM nationals who are experts in the different areas of sustainability, development and the environment in Asia and Europe are expected to attend. They will be representatives of government, civil society and the business sector.

# **ABOUT THE ENVforum**

The **Asia-Europe Environment Forum (ENVforum)** is a platform for dialogue and debate on sustainable development and environment issues in Asia and Europe.

# It serves as:

- The only multi-stakeholder forum on the environment between the two regions;
- a recognised reference point for Asia and Europe consensus on sustainable development;
- an interface between government and civil society for policy recommendations:
- an Asia-Europe network on sustainable development; and,

 a contributor to the agenda of the ASEM Environment Ministerial and other Asia-Europe Meeting (ASEM) fora.

The series is co-organised by the Asia-Europe Foundation (ASEF), the Hanns Seidel Foundation (HSF), the Swedish International Development Cooperation Agency - Swedish Environmental Secretariat for Asia (Sida-SENSA), the Institute for Global Environmental Strategies (IGES), and the United Nations Environment Programme (UNEP).

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In 2005, the ENVforum organised the major conference "1/3 of our Planet: What Can Asia and Europe Do for Sustainable Development?" in Jakarta, Indonesia. The event brought together more than 350 multistakeholders and produced a number of relevant recommendations to the ASEM governments.

Five years after the first conference and after substantial consolidation of partnerships, the ENVforum 2010 Conference will provide a unique opportunity to further enhance existing partnerships while at the same time enlarge the networks between Asia and Europe, thus adding to the quality and intensity of discussion.

For more information, please visit <a href="http://env.asef.org">http://env.asef.org</a>

# ABOUT THE CO-ORGANISERS



The Asia-Europe Foundation promotes greater mutual understanding between Asia and Europe through intellectual, cultural and people-to-people exchanges. Through ASEF, civil society concerns are included as a vital component of deliberations of the Asia-Europe Meeting (ASEM).

ASEF was established in February 1997 by the participating governments of ASEM. Since then, ASEF has implemented over 350 projects, engaging over 15,000 direct participants as well as reaching out to a much wider audience in Asia and Europe. For more information, please visit <a href="http://asef.org">http://asef.org</a>

Since 2003, ASEF has been running its Asia-Europe Environment Forum programme and implemented a number of activities, including an annual roundtable on different topics ranging from climate change, sustainable energy, and urbanisation to biodiversity, etc. For more information, please visit <a href="http://env.asef.org">http://env.asef.org</a>

ASEM now brings together 43 partner countries (Austria, Belgium, Brunei Darussalam, Bulgaria, Cambodia, China, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Indonesia, India, Ireland, Italy, Japan, Korea, Laos, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mongolia, Myanmar, the Netherlands, Pakistan, the Philippines, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia, Spain, Sweden, Thailand, United Kingdom, Vietnam), the European Commission and the ASEAN Secretariat.



Based in Munich, Germany, the Hanns Seidel Foundation (HSF) is a German political foundation with 35 years of experience in civic education in Germany and international co-operation around the world. For more information, please visit <a href="http://hss.de/english.html">http://hss.de/english.html</a>







Established in 1998, the Institute for Global Environmental Strategies (IGES) is an independent, not--for-profit think tank, based in Japan. It goes beyond research to provide practical ways to protect the earth's environment and to realise greater sustainability and equity in the global community. While the outlook of IGES is global, the principal geographical scope of its activities is Asia and the Pacific region, an area which is experiencing rapid economic development and which will affect the global environment through its population growth, urban environmental problems and other environmental issues. For more information, please visit <a href="https://iges.or.jp">https://iges.or.jp</a>.

The participation of the IGES in this endeavour is made possible with the support of the government of Japan.



The United Nations Environment Programme (UNEP) mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. For more information, please visit http://www.unep.org.

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#### ABOUT THE ORGANISERS

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