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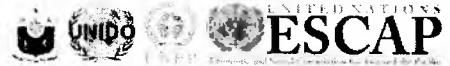


International Conference on Green Industry in Asia Bulletin

A Summary Report of the International Conference on Green Industry in Asia: "Managing the transition to resource-efficient and low-carbon industries"

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SUMMARY OF THE INTERNATIONAL CONFERENCE ON GREEN INDUSTRY IN ASIA 9-11 SEPTEMBER 2009

The International Conference on Green Industry in Asia, entitled *Managing the transition to resource efficient and low carbon industries*, took place in Manila, the Philippines, from 9-11 September 2009. Co-organized by the Government of the Philippines, with the United Nations Industrial Development Organization (UNIDO), UN Environment Programme (UNEP) and the UN Economic and Social Commission for Asia and Pacific (ESCAP), the conference provided an arena for high-level policy makers and other key stakeholders to discuss measures to achieve a smooth transition to resource-efficient and low-carbon industries in Asia.

Conference participants discussed: policies and strategies that would enable countries in the region to successfully manage this transition; regulatory and institutional frameworks as well as the support services that would be required by industry to shift to more sustainable patterns of production; and new business opportunities that the shift to a resource-efficient and low-carbon economy would create, as well as how countries in the region could benefit from such opportunities.

The conference adopted the non-binding Manila Declaration on Green Industry in Asia, which contains a Framework of Action.

This report provides a brief history of green growth initiatives in Asia, an overview of the UN system's green growth initiatives, followed by a summary of the conference proceedings.

A BRIEF HISTORY OF GREEN INDUSTRY INITIATIVES IN ASIA

MINISTERIAL CONFERENCE ON ENVIRONMENT AND DEVELOPMENT IN ASIA AND THE PACIFIC: The Ministerial Conference on Environment and Development in Asia and the Pacific (MCED) has convened every five years since 1985. It is organized by ESCAP in cooperation with UNEP and the governments in the region. MCED 2005 took place from 23-29 March 2005, in Seoul, Republic of Korea, and represented the first environmental meeting in the region that focused on the synergy between environmental sustainability and economic growth. Participants approved a comprehensive work plan for environment and development for the next five years in the region, as presented in three documents: the Ministerial Declaration on Environment and Development; the Regional Implementation Plan for Sustainable Development in Asia and the Pacific, 2006-2010; and the Seoul Initiative on Environmentally Sustainable Economic Growth (Green Growth).

The Seoul Initiative is aimed at addressing some of the major policy issues highlighted in the Ministerial Declaration and the Regional Implementation Plan and furthering their successful implementation. It presents targets, policy areas and follow-up activities to realize green growth.

Target 1 is improving environmental sustainability. This target area focuses on the efficient use of environmental resources and on improving the ecological efficiency of economic growth of the region, thus ensuring environmental sustainability. Policy areas include, in particular: incorporating ecological efficiency and environmental sustainability into economic and social development planning; assessing environmental pressure; promotion of sustainable production and consumption; and internalizing environmental costs into the price structure.

Target 2 is enhancing environmental performance. This target area focuses on improving the methods for managing environmental resources and controlling pollution. Policy areas include, in particular, promoting: the polluter pays principle; environmentally-friendly production processes; the effectiveness of environmental governance; and best practices.

Target 3 is promoting the environment as a driver and opportunity for economic growth and development. This target area aims to create a win-win synergy between the environment and economy and to present the environment as an opportunity for economic growth and private sector business. Policy areas include, in particular: promoting environment-related investment and environmental technology research; promoting and creating a positive synergy between the environment and economy; promoting the role of the private sector; and presenting environmental regulations and demands as an opportunity to promote the environmental industry and the market for environmental goods and services.

For more information see IISD's Summary report of MCED 2005 <http://www.iisd.ca/sd/mced/sdvol106num1e.html>

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INTERNATIONAL CONFERENCE ON GREEN INDUSTRY IN ASIA: A preparatory meeting for the International Conference on Green Industry in Asia was held in Manila from 25-26 November 2008, to discuss the scope, objectives, inputs, outputs, and tentative programme of the Conference, as well as the roles and responsibilities of all the partners. The Government of the Philippines presented a draft Ministerial Declaration and Action Plan for discussion.

A Preparatory Meeting, hosted by ESCAP, took place in Bangkok, Thailand from 4-5 March 2009. The meeting discussed the zero draft of the Ministerial Declaration and Action Plan.

A Senior Officials Meetings, held in Manila, the Philippines on 8 September 2009, reached consensus on the draft Manila Declaration, which was forwarded to Ministers for adoption at the High-Level Session of the Conference.

A BRIEF OVERVIEW OF THE UN SYSTEM'S RESPONSE TO THE GREEN ECONOMY

UNIDO: UNIDO's Strategic Long-term Vision Statement reaffirms calls made by the UN General Assembly and World Summit on Sustainable Development, and states that, in the long run, the focus of UNIDO's activities in the thematic programme "Environment and Energy" should be to bring about fundamental changes in both product design and technology, which provide for resource sustainability. Regarding resource sustainability, the Strategic Long-term Vision Statement involves four steps:

- continuing to reduce the usage of materials and energy through cleaner production processes to enhance production efficiency and reduce effluents of hazardous and toxic chemicals;
- moving towards circular flows of materials by promoting more strongly their continued reuse and recycling;
- shifting from non-renewable to renewable sources of energy; and
- changing the emphasis from selling products to supplying services.

UNIDO launched its Green Industries Initiative to work with governments and industry support institutions so that they can, in turn, provide assistance to enterprises and entrepreneurs in all aspects relating to the greening of industry.

UNEP: UNEP's Green Economy Initiative aims to communicate a global plan for a green industrial revolution to be supported by strong and convincing evidence of income generated, decent jobs created, and poverty reduction through investing in a new generation of assets. Such assets include: ecosystems; clean and efficient technology; renewable energy; biodiversity-based products and services; chemical and waste management and mitigation technologies; and "Green Cities" with ecologically friendly buildings, construction, and transport systems. The Green Economy Initiative will make recommendations for greening national economies, for creating new green jobs and greening existing jobs, and for a just transition from a brown to a green economy for enterprises and workers. The Initiative was launched in October 2008.

ESCAP: Since MCED 2005, ESCAP has engaged regional governments in discussing policy options and approaches for promoting green growth at various policy forums. As a follow-up to the MCED 2005, ESCAP established the Seoul Initiative Network for Green Growth.

ESCAP's member and associated countries confirmed their commitment to Green Growth during the 61st (April 2005) and 62nd (April 2006) Commission Sessions and have requested the ESCAP Secretariat to continue acting as the catalyst for a conducive environment for green growth through developing the conceptual and analytical framework, and by providing capacity building support to governments.

ILO: The International Labour Conference of the International Labour Organization (ILO), which took place from 3-19 June 2009, in Geneva, Switzerland, concluded with the adoption of a new "Global Jobs Pact," which underlines the need to include green jobs and green technologies in fiscal recovery packages and policies. In order to accelerate employment creation, jobs recovery and sustaining enterprises, the Pact recommends increasing investment in green production and services. In order to shape a fair and sustainable globalization, it further urges a shift to a low-carbon, environmentally-friendly economy that will help accelerate a jobs recovery.

UNCEB: The UN System Chief Executives Board for Coordination (UNCEB) issued a statement in June 2009, entitled "Green Economy: A Transformation to Address Multiple Crises." The statement notes that the solidarity of the international community is being tested and that economic recovery should be "the turning point for an ambitious and effective international response to the multiple crises facing humanity." The statement further provides that the UN Framework Convention on Climate Change (UNFCCC) conference in Copenhagen this December will be "the most representative test case" of international solidarity, and calls for Copenhagen to be "the turning point for ushering in a global green economy."

REPORT OF THE CONFERENCE

On the morning of Wednesday, 9 September, delegates heard opening statements, and met in a High-Level Segment to adopt the Manila Declaration on Green Industry in Asia. In the afternoon, delegates continued their discussions in two moderated High-Level Panels to discuss low-carbon and resource efficient industrialization and policies and strategies for resource efficiency and low-carbon industries.

On Thursday, 10 September, delegates convened in two technical sessions to discuss the state of industrial resource efficiency in Asia and new opportunities in Asia. In the afternoon, delegates met in two parallel sessions under the themes "Resource Efficiency" and "Cleaner Production" to discuss Reducing the Resource Intensity of Industrial Processes and Moving to Low-carbon Industrial Processes.

On Friday, 11 September, a High-Level Plenary convened to hear an address by the President of the Philippines, Gloria Macapagal-Arroyo. This was followed by two parallel technical sessions under the themes of "Eco-friendly Products," and "Energy and Environmental Services," and discussed Promoting the Energy and Environmental Services Sector and Eco-friendly Products. In the afternoon, delegates participated in two more parallel technical sessions under the themes "Moving into the Future," and discussed "Green Decent Jobs for Green Growth" and "Financing Green Industries in Asia."

This report summarizes the High-level and technical sessions held during the conference.



Jose Atienza, Secretary, Department of Environment and Natural Resources, delivered his keynote address, and stressed that the global financial and climate change crises while both independent problems, cannot be solved with separate solutions

OPENING SESSION

Welcoming delegates, Peter Favila, Secretary, Department of Trade and Industry, the Philippines, said the Conference provides an opportunity to address approaches for improving industries' environmental performance. He noted that the Conference aims to highlight new supply chains for industry, raise awareness on the knowledge and capacity of institutions, and assist institutions and bodies to lead the way in implementing low carbon paths for industrial development.



Peter Favila, Secretary, Department of Trade and Industry, the Philippines

Kandeh Yumkella, Director-General, UN Industrial Development Organization (UNIDO), underscored the essential involvement of industry in addressing the world's environmental challenges. He said the conference aims to: provide business the opportunity to demonstrate and identify technologies; find ways to sustain manufacturing growth in Asia; raise the awareness of greening in Asia; and move discussions on green industry from the technical and possible to real policy measures. He stressed that a new shift to clean manufacturing was needed to facilitate further development in the region.



Kandeh Yumkella, Director-General, UNIDO

In a video message, Juan Somavia, Director-General, International Labour Organization (ILO), stressed that, in the current context, business as usual is not an option, and highlighted the need for governments to steer a development course that is both environmentally and economically sustainable. Calling for focus on the adoption of, and transition to, greener development pathways, he stressed that building a sustainable economy entails greener industries, enterprises and jobs.

Speaking on behalf of Noeleen Heyzer, UN Under-Secretary-General and Executive Secretary, UN Economic and Social Commission for Asia and Pacific (ESCAP,) Masakazu

Ichimura, ESCAP, noted that the poverty-reducing effect of Asia's growth has lifted millions out of poverty, but that this has been achieved at the cost of local environmental sustainability. He said a fundamental paradigm shift towards green growth was a requirement for the entire Asia-Pacific region, and noted this commitment is reflected in the draft Manila Declaration that would lead green growth from "talk, to action, to industry commitment."



Masakazu Ichimura, ESCAP

Ernst Ulrich von Weizsacker, Co-chair, International Panel for Sustainable Resource Management, said many businesses are moving towards green investments, and that the next growth wave will be stimulated by green industries. He stressed a paradigm shift for industrialization through the reduction of carbon and energy intensities. He highlighted several policy options, including: increased



Ernst Ulrich von Weizsacker, Co-chair, International Panel for Sustainable Resource Management

labor productivity coupled with increased resource productivity; increasing resource prices for increased resource productivity; ensuring predictability of the economy for investors; and ensuring that growth trajectories are socially acceptable.

In his keynote address, Jose Atienza, Secretary, Department of Environment and Natural Resources, the Philippines, stressed that the global financial and climate change crises, while both independent problems, cannot be solved with separate solutions. He said green growth was the common solution to these twin challenges, and noted that Asia needs to solve their economic problems in a sustainable manner that protects the environment, creates jobs, generates income and stimulates economic growth. He underscored that the adoption of the draft Manila Declaration would signal the region's common intention to pursue the path of green industry and manage the transition to low carbon and resource efficient economies.



L-R: Jose Atienza, Secretary, Department of Environment and Natural Resources, Philippines, received a certificate of appreciation from Kandeh Yumkella, Director-General, UNIDO

HIGH-LEVEL SEGMENT

MANILA DECLARATION: Chair Atienza said the draft Manila Declaration includes a Framework of Action (FoA), outlining initiatives to develop green industry in the region. Enrique Manalo, Under-Secretary, Department of Foreign Affairs, the Philippines, said although the draft Declaration was non-binding, officials had identified steps needed to develop green industry, including measures to foster investment environments, a mechanism to review performance, and a call for increased communication. Chair Atienza, supported by Malaysia and the Maldives, proposed an additional paragraph to the FoA stating that the Declaration be communicated to the UN Secretary-General's Summit on Climate Change in New York (September 2009), and the UN Climate Change Summit in Copenhagen (December 2009). Delegates adopted the Declaration by acclamation.

MINISTERIAL STATEMENTS: Bangladesh highlighted increased global levels of environmental awareness, and noted the importance of the Declaration as a roadmap for guiding increased economic growth in Asia. He said that existing environmental protocols had not been fully successful, and listed a number of Bangladesh's own national environmental policies. He urged UNIDO, ESCAP, and the UN Environment Programme (UNEP) to continue supporting green economic growth in Asia. China stressed that the government has made



Enrique Manalo, the Philippines

resource conservation a fundamental aspect of its policies. He highlighted a number of steps taken to make industry greener and accelerate change, including setting targets for lower levels of pollution. He outlined China's national climate change programme that promotes low importing, low emission and high efficiency industries.

India emphasized the need to accelerate the development and deployment of green technologies across all sectors since



Ajay Shankar (India)

the emergence of the global financial crisis. He highlighted the launch of a national solar energy programme, called for greening urbanization, stressed the need for pragmatic and realistic approaches for combating climate change, and underlined the importance of green industry in these efforts. Indonesia said the largest users of energy within its industrial sector were the cement, iron and steel, and paper industries. He noted the country's national targets to reduce overall carbon emissions, and highlighted effective coordination across ministries. The Maldives said the government aimed to increase foreign investment, particularly in the renewable energy and environmental tourism sectors, as well as building capacity to manage foreign investments. He noted that although the Maldives' contribution to climate change was negligible, it aimed to be part of the solution and was committed to achieving carbon neutrality within 10 years.



Mohamed Rasheed (Maldives)

The Republic of Korea noted that the promotion of green growth in the country would improve energy security, and said the government has established a national green growth strategy to encourage the conservation of energy and the expansion of new and renewable energy technologies. He said that the global financial crisis was a "wake-up call" and that business as usual was no longer possible. Sri Lanka noted that the government has prioritized establishing "truly" sustainable development paths, and ensuring the integration of environment and social concerns into economic development paths. He highlighted that Sri Lanka has introduced policies for greening industry, and that a number of institutions have been established to improve resource efficiency. Vietnam said ESCAP's green industry initiative provides a pragmatic new approach to industrial development based on the efficient use of natural resources. He stressed the imperative for countries to modify current consumption and production patterns with the aim of improving resource efficiency and minimizing environmental impacts. He further stressed the importance of the UNIDO Green Industries Initiative to guide and create opportunities for environmentally-friendly services and products, particularly for small to medium sized enterprises (SMEs).



Gao Donsheng (China)



Delegates from the High-Level plenary with H.E. President Gloria Macapagal-Arroyo

HIGH-LEVEL PLENARY

On Friday morning, Jose Atienza, Secretary of the Department of Environment and Natural Resources, the Philippines, opened the High-Level Plenary, and submitted the Manila Declaration to President Gloria Macapagal-Arroyo, the Philippines.

Reading a message from Ban Ki-moon, UN Secretary-General, Jacqui Badcock, UN Resident Representative, the Philippines, noted that reaching a deal at Copenhagen will drive green growth, protect forests and associated livelihoods, and create prosperity for those lacking basic services. She underscored that green industry is at the "heart of our hopes for the future," and that the Asia Pacific region can play a leading role in this.

Addressing the plenary, President Macapagal-Arroyo, noted that greening industry was central to the Philippines as the country is prone to many natural disasters and susceptible to the effects of rising sea levels. She called on industrialized countries to table firm targets for reducing emissions at the UN Climate Change Summit in Copenhagen, and to assist developing countries in setting and reaching targets. She outlined initiatives in the country to contribute to greener industries, including the law for green industry that provides for fiscal and non-fiscal incentives for the use of new and renewable energy sources. She noted that the government places a strong emphasis on sustainable economic models that incorporate both economic and environmental protection.

HIGH-LEVEL PANELS

The High-Level Panels were moderated by Paul Hohnen, Director, Sustainability Strategies.

LOW CARBON AND RESOURCE EFFICIENT INDUSTRIALIZATION: Noting the mounting challenges facing industry, Hohnen asked the panelists to outline elements of their national strategies for promoting green growth.

Malaysia noted that green investments in the manufacturing sector, supported by South Korea, the US and Germany, have allowed the country to leapfrog the steep learning curve through technology transfer. Fiji stated their ambition to generate 90% of their energy needs from renewable energy and highlighted tax breaks for establishing renewable energy facilities. Cambodia said the country has promising potential for solar, micro-hydro and biomass projects. Peoples Republic of Laos (Lao PDR) said it has a sovereign interest and vested requirement in maintaining the country's natural resource-base, and stressed that investors and developers would have to abide by this requirement to participate in industrial activities. Noting that the country faces resource scarcity, he also said there was a need to modify industry and consumer lifestyles. Cambodia noted that grid extensions were still a priority and said the development of large-scale transboundary renewable energy projects could be beneficial.

On a question from the moderator as to whether a collective approach for capacity building was needed, Lao PDR agreed that it is, noting that this would facilitate activities to adapt to climate change. ESCAP said UN agencies could support public awareness through convening conferences and workshops.

On institutional arrangements to support the greening of industry, the Philippines called for a regional agency for energy and development. Malaysia cautioned against the imposition of non-tariff barriers, which he said would burden developing countries with policies that would inhibit development, citing recent proposals by the US Senate to place a carbon tax on foreign imports. ESCAP highlighted the need for countries to be aware of green investment opportunities and proposed the creation of an enabling environment through appropriate national and regional policies. Fiji recommended the establishment of an Asia-Pacific Centre of Excellence for exchanging knowledge and experiences, Mongolia called for changing global priorities from producing armaments towards protecting the environment, and Lao PDR stressed the need for enhanced global cooperation to address global challenges.



Paul Hohnen (left), Director, Sustainability Strategies, moderated the high-level panels

Hohnen concluded the Panel with the following limerick, “our model of growth is a killer, so it is time for all hands on the tiller, to get out of this mess, we need more but with less, this is the message to come from Manila.”

POLICIES AND STRATEGIES FOR RESOURCE EFFICIENCY AND LOW CARBON INDUSTRIES: On national institutions and frameworks for greening industry, several panelists noted that a number of their national ministries deal with environmental issues. Thailand highlighted the work of its national climate change committee, which, he said, has led to a number of initiatives including the use of new technologies for bioplastics. The Philippines noted that its greening initiatives form part of the national development plans, which are directly linked to the Millennium Development Goals (MDGs). He stressed that greening industry would be promoted within this overall development framework, including ensuring technology transfer and risk management so that industry is able to adapt. Indonesia outlined a national programme to encourage households to use compact fluorescent lights (CFLs) noting that this was driven through subsidies and public outreach, as well as building capacity to ensure domestic supplies of CFLs.

The Flemish Government, Belgium, noted that resource scarcity and high population density has made environmental awareness necessary, and that strong regulations tied together with industry consultations have led to innovative technologies and opportunities, for example where waste had been recognized as a resource.

On countries’ awareness of the opportunities relating to greening and green industry, UNEP said climate change regulations should be seen as a guide to companies for future business trends. He noted that government regulations and policies should serve as guides for industry, and said that although proposals for carbon taxes face opposition, enabling policies for compensating green investments are still required.

On target setting for green investments, Thailand noted that setting targets was easy, but providing resources to achieve them was crucial. Afghanistan said training support

and benchmarking was needed, in addition to funding, to develop human capital. UNEP highlighted the need for strong leadership and said that delaying payment for damaged ecosystems would not alleviate the problem caused by the old economic growth model. The Flemish Government, Belgium, said that setting domestic low-carbon goals was a priority and that the Flemish Government was aiming to become carbon neutral.

On choosing regional technology “winners,” such as geothermal, Indonesia said that although they had strong resources, developing technologies increases the cost of energy production, and therefore the government preferred to use low-cost energy technologies now and to use advanced generation technologies in the future.

In the ensuing discussion, delegates questioned whether risk perceptions could be overcome, with several noting the need for political will to mitigate risks. On the establishment of technology-sharing agreements, delegates stressed financial mechanisms for ensuring that technologies are publicly available. On creating legislation for the production of mass-produced green products, one delegate stressed that this was not always possible due to lack of capacity, but said that public procurement policies could overcome this.

TECHNICAL SESSIONS

THE STATE OF INDUSTRIAL RESOURCE

EFFICIENCY IN ASIA: This session was moderated by Elisea Gozun, former Secretary, Department of Environment and Natural Resources, the Philippines.

In a keynote statement, Shuzo Nishioka, Senior Research Advisor, Institute of Global Environmental Strategies, delivered the keynote statement on resource efficiency for green growth. He noted that by 2050 reductions of greenhouse gas emissions from countries that are not part of the Organization for Economic Cooperation and Development (OECD) would account for 65% of the world’s total reductions, of which, he said, 59% would come from



Shuzo Nishioka, Senior Research Advisor, Institute of Global Environmental Strategies, noted the need to transition to more efficient transportation

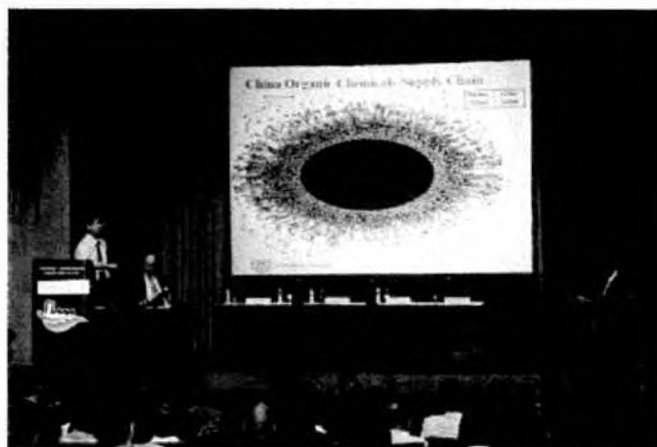
demand-side activities. He said that demand-side activities would decrease energy supply requirements, and suggested that Japan has the technical potential to reduce its emissions by 70% by 2050. He noted that, in Japan, using intensive product analysis and design, integrated with full-accounting lifecycle analysis, companies aimed to improve their efficiency by a factor of 10. Explaining that opportunities for clean and efficient development pathways exist in China, he said that “tremendous” efficiency gains could be achieved through efficient transport network planning, particularly if China followed the transport and land-planning systems used by the most efficient cities in the world. He stressed the importance of “tightening” material supply chains between countries, and said government has an important role in reducing energy demand, as well as embedding resource efficiency into society. Noting that Japan’s experience could be shared across Asia, he urged regional collaboration on developing more efficient technologies and stressed there was no time to delay the transition to a low-carbon society, as the world’s absorptive capacity for carbon dioxide would decrease over time.

Hunter Lovins, Founder, Natural Capitalism, emphasized that the world’s economy exists to serve the needs of society rather than society existing to serve the interests of business. She provided numerous examples of how companies and agencies around the world are using “bio-mimicry” and closing the loop on resource flows to reduce resource consumption while simultaneously enhancing profitability.



Hunter Lovins, Founder, Natural Capitalism, stressed that nuclear is not a good alternative to fossil fuels

She cautioned that countries in Asia have a brief window of opportunity in which to act, redirecting their growth to more sustainable paths, and becoming leaders in the new wave of development, which others will follow. She recommended measuring prosperity through “well-being” metrics such as those used in Bhutan, rather than gross domestic product (GDP) metrics. Referring to the manufacturing sector, she suggested companies should re-engineer products to allow for the reuse and recycling of components. On the business case for sustainability, she described the integrated bottom line that enhances financial performance, labor productivity, innovation, and branding while reducing costs, risks and distrust. She



Lei Shi, Tsinghua University, provided an overview of China’s Circular Economy Promotion Law

underlined that recovering from the economic crisis to follow the same path would again lead to failure, and that by shifting instead, to sustainable, low-carbon pathways, Asia’s prosperity would be ensured.

In the discussions, participants focused on identifying the key messages to provide encouragement for business managers to change their strategies. Participants also identified the need to: ensure practical alliances in fighting climate change; move towards sustainable mobility; and share technologies to change the system of production. In her summary, moderator Gozun said that business as usual is no longer an option. “In fact,” she said “business as usual will mean you are out of business, not just for business, but for the entire planet.”

THE WAY FORWARD: NEW OPPORTUNITIES IN ASIA: Paul Hohnen moderated this session. Lei Shi, Tsinghua University, provided an overview of China’s Circular Economy Promotion Law, which aims to increase material efficiency and ensure a low-carbon economy. He said the Law, which came into effect on 1 January 2009, deals with general principles, basic management, reduction, reuse and recycling, and incentive measures. He stressed that the Law focuses on reducing, reusing and recycling activities conducted during the production, circulation and consumption processes, particularly in the mining, agricultural, manufacturing, construction, waste, services, and food sectors. He noted that the Law also includes a policy integration framework, which he said is extremely broad and has wide ranging potential to direct and shape China’s sustainable development pathway.

Kazunobu Onogawa, Director, UN Centre for Regional Development (UNCRD), presented on the 3R (reduce, reuse and recycle) Initiative with a focus on waste management. He said that poor waste management is a common but serious problem throughout the world, including health and environment problems, shortage of landfill sites, and the contribution to climate change. As an example of the benefits of the 3R process, he said that for every ton of paper recycled, 17 trees and 21 000 l of water are saved and landfill area is reduced by 2.3 cubic metres. He said UNCRD focuses on the needs of recipient countries, particularly at the local government level, as well as assisting in the development of national 3R strategies. He underscored the need for a holistic approach involving various stakeholders, combining upstream and downstream activities with mutual benefits for all parties concerned. He reminded delegates that the UN Commission on Sustainable Development’s two-year cycle for the period



Stefan Giljum, Head of Research Group in Sustainable Resource Use, Sustainable Europe Research Institute, presented global and Asian trends in improving resource efficiency for sustainable growth

2010-2011 will address issues related to waste management and the 10 year framework of programmes on sustainable consumption and production.

Stefan Giljum, Head of Research Group in Sustainable Resource Use, Sustainable Europe Research Institute, presented global and Asian trends in improving resource efficiency for sustainable growth. He said that although energy intensity per unit of GDP has steadily improved over the last 30 years, the relative growth of resource utilization has continued to rise. He noted that a drastic decoupling of resource use from economic growth is needed and that additional environmental policies are needed to counter the rebound-effect. He noted that Asia's consumption already exceeds its bio-capacity, and consumption changes are also needed as Asia uses about twice the resources to produce one unit of GDP as compared to Europe.

In the discussion, participants addressed economic policies to stimulate resource efficiency and sustainable growth.

RESOURCE EFFICIENCY AND CLEANER PRODUCTION: Reducing the Resource Intensity of Industrial Processes:

This session was moderated by Dmitri Piskounov, Managing Director, Programme Development and Technical Cooperation Division, UNIDO.

In the keynote statement, Chettiyappan Visvanathan, Professor, Asian Institute of Technology, noted that where industry has reached the limit to resource efficiency improvements, there needs to be a re-assessment of the properties of raw materials. He said it was necessary to develop combinations of interventions and policies to create a "vaccine" to prevent dirty production practices. He noted that climate change was not the only driver for cleaner production, and said that resource scarcity was also relevant to national concerns.

Rismawarni Marshal, Executive Director, Indonesian Cleaner Production Centre (ICPC), described the ICPC's



Rismawarni Marshal, Executive Director, ICPC

work in Indonesia to promote cleaner production practices. She explained the role of the ICPC in training trainers, and how they are linked with industry, government and academia to spread cleaner production knowledge and practice. Noting that voluntary measures have been unsuccessful due to a lack of capacity in the clean production service industry, she said the ICPC focuses on education and training of industry and service providers.

Iresha Somaratne, Head of Energy and Environment, Brandix Group, reported on cleaner production methods introduced in his apparel company. He said the company has improved energy, water, and waste management practices considerably since implementing numerous cleaner production measures, in addition to employee well-being improving. He said this cleaner production strategy was needed given the fact that many of their consumers are environmentally conscious and underlined the short payback period and profitability of the strategy.



Iresha Somaratne, Head of Energy and Environment, Brandix Group

Robert Pagan, Board Member, Asia Pacific Roundtable for Sustainable Consumption and Production, used the food industry as an example of the challenges that face cleaner production service providers. He noted that perceptions regarding waste are a primary barrier, and that stronger regulation is needed. He expressed the belief that "fear" could bring about dramatic results, citing water conservation restrictions imposed as a result of the drought in Queensland, Australia as an example. He said that strong rational and political will is needed to "propagate" clean production.



Robert Pagan, Board Member, Asia Pacific Roundtable for Sustainable Consumption and Production

Jenny Tan Suat Eam, Council Member, Environmental Management and Research Association, talked about reducing resource intensity in Malaysia. She noted that there was strong attention to energy use, but said that SMEs were often hesitant to consult with government, and urged further interaction. She said that legislation without training and education has been inefficient, and the focus was now on guidelines, green supply-chain mentoring, and delivering grants and funding.

Nguyen Van Thanh, Deputy Director-General of Industrial Safety Techniques and Environment Agency, spoke on reducing resource intensity in industrial processes in Vietnam. He noted that barriers facing cleaner production in Vietnam include: old technology; weak financial capability; lack of internalized environmental costs; and weak enforcement on effective usage of resources. He recommended that the government of Vietnam lead the greening of industry by setting environmental and natural resources taxes and facilitating bilateral technology transfer.

In the discussion, participants addressed issues such as including cleaner production in environmental impact assessments, and integrating resource efficiency across industry, consumers, government and academia. Participants also discussed how to correctly set the price of natural resources, and develop incentives and profitability as strong drivers for industry to adopt cleaner production methods.

Moving to Low-carbon Industrial Processes: This session was moderated by Ned Clarence-Smith, Global Environment Facility Coordinator, UNIDO.

Noting the continued reliance on fossil fuels whilst cleaner technologies remain expensive, Edgar Chua, Chairman, Shell Philippines, stressed that energy efficiency measures have the potential to account for half of the required reductions of carbon dioxide. He said coordinated action is needed in energy

efficiency, security and diversity as well as carbon dioxide management. He noted that Shell is already concentrating on efficiency gains, and that continued investment into research and development will assist customers in using less fuel.

Bob Williams, Senior Industrial Development Officer, UNIDO, said that energy efficiency in business is not well understood as it is not well managed or measured. Outlining UNIDO's work in this area, he noted that most efforts focused on the transfer of knowledge and skills. He outlined the implementation of the International Organization for Standardization's energy management standard (ISO50001) whose components include measurement, management and documentation, continuous efficiency improvements, and establishing key performance indices.

Chandra Bhushan, Director of the Centre for Science and Environment, India, noted that increased energy use will



Chandra Bhushan, Director of the Centre for Science and Environment, India

lead to increased greenhouse gas emissions, and that energy efficiency alone would not be a solution.

Roland Schroder, Director, Henkel Company, noted that the choice of raw materials used in manufacturing is important for reducing emissions. He highlighted that product packaging has decreased over time, in some cases by a factor of

three. On life cycle assessments of some of Henkel's products, he noted that most of the waste and carbon dioxide emission from their products occurred during usage, not in production.

Sidi Si Ahmed, Montreal Protocol Branch, UNIDO, emphasized that the Montreal Protocol has been more beneficial for climate change than other initiatives such as the Clean Development Mechanism.

Sivanappan Kumar, Dean, School of Environment Resources and Development, Asian Institute of Technology, said that further development is needed to create a hydrogen economy. He stressed the need for cross-sectoral participation and cooperation in moving towards a low-carbon economy.

Victor Gao, Director, China National Association of International Studies, highlighted the growth of the Chinese economy, but stressed that as the growth was both labor and resource intensive, it was not sustainable. He emphasized the need for green financing to support low-carbon industries in developing greener economies.

In the ensuing discussion, participants questioned why energy businesses were concentrating on reducing emissions and increasing product efficiency. Chua noted that, aside from improving reputation, this was a more sustainable business model, as customers would opt to buy a particular brand. One participant noted that technology coordination across industries was necessary for efficiency gains to be effective. On the necessity for a fundamental paradigm shift, as opposed to incremental actions, participants stressed that price barriers prevented the uptake of technology that could aid the paradigm shift. Participants also noted that political will would be the biggest driver of change.

ECO-FRIENDLY PRODUCTS, ENERGY AND ENVIRONMENTAL SERVICES: Promoting the Energy and Environmental Services Sector: This session was moderated by Arab Hoballah, Chief, Sustainable Consumption and Production Branch, UNEP.



Girish Sethi, Director, TERI, India outlined approaches for promoting environmental goods and services (EG&S) in Asia, with a focus on resource and energy efficiency services

In his keynote statement, Girish Sethi, Director, The Energy and Resources Institute (TERI), India, outlined approaches for promoting environmental goods and services (EG&S) in Asia, with a focus on resource and energy efficiency services. He said that EG&S should be seen as going hand-in-hand with technology choices, and will play a key role in: reducing raw materials consumption; lowering greenhouse gas emissions; reducing waste and pollution; creating jobs in urban and rural areas; and assisting in meeting the MDGs. Among recent trends, he noted that EG&S have: generated green jobs; increased the role of the private sector; increased the role of renewable energy technologies; and shifted the process from "end of pipe" solutions towards clean technologies. He said EG&S cannot be implemented through a single strategy, but rather through a combination of strategies, addressing issues such as enabling environments,



Wei Zhao, Team Leader, SWITCH Asia Network Facility

standards and labels, public procurement, promotion of renewable energy technologies, and financial incentives and taxation.

Wei Zhao, Team Leader, SWITCH Asia Network Facility, presented on greening the SME resource efficiency service sector. She outlined the Network's focus on replicating win-win solutions

within SMEs, and stressed the need to look at elements that will influence behavioral change. She noted a specific focus on business networks, policy environments, knowledge resources, and the social environment. She stressed the need to build trust and create a culture of investing in equipment not just for services, and underscored the important role that business associations can play in providing renewable energy services where such services are yet to be developed.

Shun Fung Chiu, Chairman, Asia Pacific Roundtable for Sustainable Consumption and Production, the Philippines, outlined areas that need to be discussed by the Roundtable in the future, including South-South partnerships, resource mapping in Asia, clean technology development, and value-added strategies and business models. He said, "government needs to start rolling the ball and industry needs to keep the ball rolling."

Han Wei, Project Manager, China Standard Certification Center, outlined the role of lighting products in China. She said there were still problems with the market transformation

towards the use of efficient lighting technologies, including: high initial purchase costs; low consumer awareness; low and insufficient manufacturing capacity; and that low quality products with poor efficiency have easy access to the markets, and have damaged the confidence of consumers. She highlighted a number of China's green lighting initiatives, such as labeling and certification, capacity building, public awareness, standards in buildings, subsidies and market approaches.



Han Wei, Project Manager,
China Standard Certification
Center

Anna-Bella Siriban-Manalang, Director, Centre for Lean Systems, the Philippines, presented on the issues and challenges in promoting energy

and environmental services, and highlighted the importance of upstream and downstream decoupling. She said government action in research and development, policy design and implementation has been slow and too conservative.

She stressed that in most cases, governments have yet to recognize the urgency of giving attention to, in particular,



Anna-Bella Siriban-Manalang,
Director, Centre for Lean
Systems, the Philippines

energy and environmental services policy. Noting that in many countries it is "cheaper to dirty the environment than to protect it," she identified a number of enabling conditions, namely: ~~legislation and standards; fiscal policy reform;~~ finance and investment; development, technology transfer and capacity building; trade policy and markets; and information, awareness, education and participation.

Eco-Friendly Products: This session was moderated by Stefanus Fotiou, Regional Coordinator of Resource Efficiency, UNEP.

In a keynote statement, Philine Bracht, School of Design, Hong Kong Polytechnic University, gave an overview of recent practices in eco-friendly product design in the Asia region. She noted that "eco-products" are available in many categories of consumer goods, but that these may have higher prices and replicate existing design flaws. She outlined that drivers of demand include green procurement policies, eco-labeling programmes and business initiatives. Stressing the need for more consumer awareness and education, she noted that rebound effects may occur, and that there is still more room for innovation.

Sung-Sik Moon, Korea Environmental Industry and Technology Institute, said that green growth can be achieved through the balanced development of green production and green consumption sectors. He stressed that behavioral changes within the economic sectors were vital, and that the most effective driver of this was green procurement laws, such as those implemented by the Republic of Korea.

Akira Kataoka, International Green Purchasing Network (IGPN), Japan, outlined the work of IGPN including promoting the development of environmentally-friendly products and services. He noted that IGPN's goals include capacity building,

strengthening of institutions, and the development of database systems for environmentally-friendly products, services and related legislation.

Marcel Crul, Delft University of Technology, stressed the importance of product design and innovation. He noted that government could stimulate the innovation of eco-friendly products, which leads to a change in the production focus, from cost to quality, and other user-centered approaches that enhance the sustainability of the products.

Tran Van Nhan, Vietnam National Cleaner Production Centre (VNCPC), noted the mission of the VNCPC, including disseminating cleaner production concepts and improving product competitiveness. He noted that VNCPC creates trade opportunities between countries and groups, as well as disseminating resource kits and lessons learned to members, which aid marketing activities for the consumer goods.

In the ensuing discussion, some participants highlighted the submission of an Asian environmental packaging standard that has been submitted to ISO. Others highlighted the price gaps that exist between "normal" and "eco" products, and measures available for closing the gap. Improved green labeling was also discussed, in addition to advanced labeling techniques.

MOVING INTO THE FUTURE: Green Decent Jobs for Green Growth: This session was moderated by Masakazu Ichimura.

In a keynote statement, Ludovico Alcorta, Director, Research and Statistics Branch, UNIDO, stated that for economic growth to resume, a fundamental innovation paradigm shift was needed. He noted that this "major" structural change in the economy needed to include innovation in renewable energy and energy efficiency. Alcorta stressed that conditions for success include profitability, greening demand, dynamism and competitive advantages. He noted that growing consumer consciousness, and the growth of private and public standards and certification have contributed to greening demand.

Li Tienan, China Standard Certification Center, outlined regulations, policies and standards to drive the growth of decent green jobs. He noted that government legislation is important as it can promote innovation through policies and incentives. He also noted that increased environmental labeling practices and green standards would drive the growth of green jobs.

Cynthia Cruz, Executive Director, Institute for Labor Studies, the Philippines, said that before generating green growth the structure of the economy needs to be understood, and stressed that sustainability remains an innovation frontier. She noted a number of transition scenarios towards a green economy, and emphasized that training of workers will be necessary for skills to be available. She underscored the importance of strengthening capacity to manage the transition, as well as increasing adaptive capacity.



Cynthia Cruz, Executive
Director, Institute for Labor
Studies, the Philippines

Vincent Jugault, ILO, noted climate change and green jobs challenges. He stated that green jobs are defined as jobs that are environmentally-friendly and sustainable, as well as decent. He noted high potential sectors for these jobs included energy



efficiency and renewable energy technologies, and stressed that greening existing jobs and processes is equally important. He lamented that policies currently under development are not fully inclusive of the social dimension of work, and hoped for the inclusion of social clauses in the agreement currently being negotiated under the UN Framework Convention for Climate Change (UNFCCC).

In the ensuing discussion, participants queried whether there was enough incentive for green growth to be driven by the private sector alone, or if government incentives were essential for a change to occur. One participant stressed that as there are many profitable opportunities available to pursue, there should be sufficient demand to create green growth in the private sector.

On opportunities that exist for developing countries, participants noted that some fossil fuel extraction processes are less labor intensive than renewable technologies, which means that focusing on renewable energy sources would have a net positive job impact. Participants also stressed that the policy framework for green growth needs to be clearly articulated, and underscored the importance of education in driving the demand for eco-friendly products and services.

Financing Green Industries in Asia: The session was moderated by Rene Van Berkel, Chief, Cleaner Production unit, UNIDO.

In a keynote statement, Jigar Shah, Senior Technical Specialist Climate Change, International Finance Corporation (IFC), outlined IFCs work to increase financing in green industry investments. He said barriers to greening projects on the client and lender side, included: knowledge gaps between technical and financial staff; perceived risks, and small projects not being attractive to lenders; and challenges in securitizing investments. He spoke on educational and advisory measures being undertaken to overcome the barriers and successes in China and the Philippines in partnering with local banks and providing financing to SMEs for energy efficiency and other greening measures.

Pankaj Sehgal, Managing Director, Sun Group, said aside from climate change, drivers for cleaner industry and energy in India included lack of grid access, transmission system losses, high population, and a growing dependence on imported fuels. He highlighted the lack of venture capital for clean technology in India, and said a clean development fund was used to import technology. He noted the snowball effect of local companies partnering with the IFC and World Bank, and said that this would attract other banks, institutions and partnerships.

Laksmi Dhewanthi, Assistant Deputy Minister for Incentive and Environment Fund, Indonesia, underlined Indonesia's strong belief that financing investments in the environmental sector are important to its development and national security. She explained that the Fund offered monetary incentives at all levels of investment, and provided free training and assistance for SMEs. She also said that the Fund aimed to collaborate with the Indonesian Central Bank, to mainstream and internalize environmental measures in the bank's policies. She noted how the investment environment had changed over the last 10 years, and said that clean investment areas had shifted from expensive "end of pipe" options to cleaner production and sustainability options.

Pernod Gupta, Chief Advisor, UNIDO Cleaner Production Centre, Cambodia and Lao PDR spoke on the adequacy of the available financing measures for SMEs, and noted that many of the conditions of banks and lending institutions on businesses

were similar. He said that small industries often don't have enough security and collateral to apply for financing where interest rates are high, and SMEs often do not consider environmental costs as being essential to their businesses. He said that further development of cleaner production through training, at all levels, was required, and that certification to provide recognition should be developed to make cleaner production more attractive to companies.

Randy Maranan, Vice President, Bank of the Philippines Islands (BPI), the Philippines, spoke on the partnership between the BPI and IFC. He noted that the BPI had promising results from engaging in green investment activities, and was going to extend their arrangement with the IFC to increase their actions. He noted that the BPI has provided free energy audits, was doing a sustainability report, and has undertaken capacity building work with their account officers.

In the discussion participants raised concerns that fiscal policies do not promote small energy projects in some countries, and many Asian countries faced the problem of choosing development over the environment.

In his summary, the moderator said the financing situation appeared to be in its early stages, that tailor-made options are needed but that good examples exist, and ways to upscale these to maximize the impact of cleaner industry was needed.

CLOSING SESSION

In his closing remarks, Arab Hoballah, UNEP, said managing the transition to a low-carbon economy is more about greening industry than just promoting green industry and stressed the importance of the greening process and enabling conditions to make this a reality. He said that decoupling and resource efficiency are essential elements for any global green deal. He noted that unless we put green into economic growth strategies, and re-design growth for people and the planet, the international community is in danger of repeating past mistakes that led to the fuel, financial and faith crises, which have pushed millions back into poverty. He called for the "right" signals and incentives to help seal the deal in Copenhagen.

Heinz Leuenberger, Director of the Environment Management Branch, UNIDO, said the aim of the conference was to make greening industry a political theme, and suggested that the Manila Declaration was a step in the right direction to achieving this. Noting that the Declaration was not legally binding, he said the UN partners will approach the Declaration as a commitment, and will try to ensure some level of monitoring and reporting of its impacts on stimulating green growth. He underscored the importance of political will and leadership, and said the Asian region is at the right place and time to make this a reality.

Graciano Yumul, Under-Secretary for Research and Development, Department of Science and Technology, the Philippines, urged the region to align its development strategies to include investments in new green technologies, as well as in research and development. He said the realization of the conference goals would require science and technology inputs, as well as collaboration between all actors. He stressed that the Manila Declaration contains significant parameters for success and said that a smooth transition to a green economy in Asia was now a high priority and is a step in the right direction to ensure economic and social development.

The meeting closed at 17h00.

Manila Declaration: In the Declaration, Ministers and heads of delegations agree to, *inter alia*:

- intensify regional and international cooperation in the adoption of a Green Growth strategy exemplified in ESCAP's Green Growth Initiative to promote long-term and ecologically sustainable patterns of development;
- intensify bilateral, regional and international cooperation in the development and transfer of cleaner production technologies and practices;
- incorporate cleaner production policies in national development plans, and set goals and formulate actions, as appropriate, for promoting low-carbon and resource efficient manufacturing industries;
- strengthen the economic and trade competitiveness of green industries in Asia as producers and suppliers of goods and services in the new global and regional value and supply chains;
- encourage the adoption of strategies and plans for the greening of economic growth by integrating sustainable consumption and production into national development policies;
- foster a greater market penetration of eco-friendly products and services from Asia while enabling potential industries to have more favorable access to relevant international assistance;
- promote the increased use of renewable energy and energy-efficient processes in the industrial sector;
- support and advance the development of national supply capacities for environmental goods and services;
- promote investments and financing in low-carbon and resource-efficient manufacturing industries;
- encourage regional cooperation to share best practices, innovations and environmentally-friendly and sound technologies, as well as to effect the transfer of relevant technologies; and
- encourage all relevant UN organizations, specialized agencies, funds and programmes, to promote and raise awareness of cleaner production, energy efficiency, and renewable energy concepts throughout the manufacturing and production-based industries in the region.

Framework of Action: In the Framework of Action contained in an annex to the Declaration, Ministers and heads of delegations undertake to periodically review and assess progress of countries in the region towards more resource-efficient and low-carbon industrial production, and to request ESCAP, UNIDO, UNEP and ILO, in consultation with participating governments, to conduct the necessary studies to assist in this review and assessment process. Ministers and heads of delegations further agreed to, *inter alia*, establish a:

- consultative mechanism among governments, business, industry, academic and research institutes and civil society;
- network of green industries;
- portal for best practices, tools and methodologies, including the development of a database for energy and environmental service providers, for greater exchange of information;
- network of universities and research centers for technological innovation towards the green industry;
- communications strategy to enhance awareness and knowledge towards the attainment of green industry performance tools; and

- an expert group in the Asia-Pacific region to help promote the sharing of knowledge, expertise and know-how on green industry, through meetings, networking and other appropriate activities.

Ministers and heads of delegations also agreed to use the elements of the Declaration as inputs to related and connected activities such as the UN Secretary-General's Climate Change Summit in September 2009, and the UNIDO General Conference on the theme Green Industry and UN Climate Change Summit, both in Copenhagen in December 2009.

UPCOMING MEETINGS

UN HIGH-LEVEL EVENT ON CLIMATE CHANGE:

UN Secretary-General Ban Ki-moon will host an all-day high-level event on climate change for Heads of State and Government on 22 September 2009 at UN Headquarters in New York. For more information, see <http://www.un.org/en/events/>

AWG-LCA 7 AND AWG-KP 9: The seventh meeting of the Ad Hoc Working Group on Long-term Cooperative Action under the UNFCCC (AWG-LCA) and the ninth session of the Ad Hoc Working Group on Long-term Cooperative Action under the Kyoto Protocol (AWG-KP) are scheduled to take place from 28 September-9 October 2009 in Bangkok, Thailand. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: <http://unfccc.int/>

GLOBAL RENEWABLE ENERGY FORUM 2009: SCALING UP RENEWABLE ENERGY: This meeting, co-organized by the Ministry of Energy of Mexico and the UN Industrial Development Organization (UNIDO), will take place from 7-9 October 2009 in León, Mexico. The Forum will seek to promote dialogue in order to strengthen interregional cooperation and encourage innovative multi-stakeholder partnerships aimed at scaling up investments in renewable energy. For more information, contact: Pradeep Monga, Director, Energy and Climate Change Branch, UNIDO; tel: +43-1-26026-3018; fax: +43-1-269-2669; e-mail: GREFMexico2009@unido.org; internet: <http://www.grefmexico2009.org/>

GREENING THE GLOBAL ECONOMY THROUGH SUSTAINABLE TOURISM: This meeting convened by the UN World Tourism Organization (UNWTO) and the European Travel Commission takes place from 14-15 October 2009 in Gothenburg, Sweden. The meeting will work towards raising the profile of the tourism sector as a key strategic element of global resilience and recovery, to show how tourism can play a leading role in the development of a sustainable global economy. For more information, contact: UNWTO tel: +34-91-567-8178; fax: +34-91-567-8218; e-mail: comm@UNWTO.org; internet: http://www.unwto.org/media/news/en/press_det.php?id=4611&idioma=E

OPEN-ENDED WORKING GROUP ON MERCURY: This meeting, taking place in Bangkok, Thailand from 19-23 October 2009, will prepare for the first intergovernmental negotiating committee (INC) on mercury, scheduled to convene in 2010. In particular, the meeting will discuss the negotiating priorities, timetable and organization of work for the INC. For more information, contact: UN Environment Programme (UNEP) Chemicals; tel: +41-22-917-8183; fax: +41-22-797-3460; e-mail: mercury@chemicals.unep.ch; internet: <http://www.chem.unep.ch/mercury/>



UNEP FI 2009 GLOBAL ROUNDTABLE: This meeting takes place in Cape Town, South Africa from 22-23 October 2009. This Roundtable will include interactive panel sessions, in-depth debates, and expert training on: responsible investment; sustainable banking; low-carbon economy; financing renewables; sustainable insurance; transparency, reporting and accountability; responsible property investment; microfinance; finance and water; valuing natural capital; and financing for sustainable development. For more information, contact: UNEP FI; tel: +41-22-917-8178; fax: +41-22-796-9240; e-mail: roundtable@unepfi.org; internet: <http://www.unepfi.org/events/2009/roundtable/index.html>

31ST SESSION OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC): This meeting will take place from 26-28 October 2009 in Bali, Indonesia. Prior to the meeting, Working Groups I, II and III will approve their respective outlines for the Fifth Assessment Report. For more information, contact: the IPCC Secretariat; tel: +41-22-730-8208; fax: +41-22-730-8025; email: ipcc-sec@wmo.int; Internet: <http://www.ipcc.ch>

RESUMED AWG-LCA 7 AND AWG-KP 9: A resumed seventh session of the AWG-LCA and the resumed ninth session of the AWG-KP are scheduled to take place from 2-6 November 2009 in Barcelona, Spain. For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; Internet: <http://unfccc.int/>

REGIONAL CAPACITY BUILDING WORKSHOP ON BAT/BEP AND ENVIRONMENTALLY SOUND MANAGEMENT (ESM) OF POPS WASTES AND PCBS FOR ASIA: The Regional Capacity Building Workshop on Best Available Techniques/Best Environmental Practices (BAT/BEP) and Environmentally Sound Management (ESM) of Persistent Organic Pollutants (POPs) Wastes and Polychlorinated Biphenyls (PCBS) for Asia, organized in cooperation with the Basel Centre Regional Centre (BCRC), takes place in Beijing, China, from 16-20 November 2009. For more information, contact: tel: +41-22-917-8729; fax: +41-22-917-8098; e-mail: ssc@pops.int; internet: <http://chm.pops.int/Home/tabid/36/mctl/ViewDetails/EventModID/1007/EventID/70/xmid/1854/mret/t/language/en-US/Default.aspx>

UN COMMISSION ON SUSTAINABLE DEVELOPMENT (CSD) REGIONAL IMPLEMENTATION MEETING FOR ASIA AND THE PACIFIC: This meeting, to be held in Bangkok, Thailand from 24-26 November 2009, is organized by the UN Social and Economic Commission for Asia and the Pacific (ESCAP) and will prepare for CSD 18. For more information, contact: Masakazu Ichimura, ESCAP; tel: +662-288-1234; fax: +662-288-1059; e-mail: escap-esdd-oc@un.org; internet: http://www.un.org/esa/dsd/csd/csd_index.shtml

UNIDO GENERAL CONFERENCE: The thirteenth session of UNIDO's General Conference (GC) takes place from 7-11 December 2009 in Vienna, Austria. The GC is UNIDO's supreme policymaking organ where all Member States meet once every two years. It determines the guiding principles and policies of the Organization, approves the budget and work programme of UNIDO. The theme for this session is "Greening Industry." For more information, contact: Jeannine Orłowski; tel: +43-1-260-260; fax: +43-1-269-2669; e-mail: J.Orłowski@unido.org; internet: <http://www.unido.org/index.php?id=1000257>

UNFCCC COP 15 AND KYOTO PROTOCOL COP/MOP 5: The fifteenth Conference of the Parties to the UNFCCC and fifth Meeting of the Parties to the Kyoto Protocol are scheduled to take place from 7-18 December 2009 in Copenhagen, Denmark. These meetings will coincide with the 31st meetings of the UNFCCC's subsidiary bodies. Under the "roadmap" agreed at the UN Climate Change Conference in Bali in December 2007, COP15 and COP/MOP 5 are expected to finalize an agreement on a framework for combating climate change post-2012 (when the Kyoto Protocol's first commitment period ends). For more information, contact: UNFCCC Secretariat; tel: +49-228-815-1000; fax: +49-228-815-1999; e-mail: secretariat@unfccc.int; internet: <http://unfccc.int/>

FOURTH INTERNATIONAL RENEWABLE ENERGY CONFERENCE (IREC): This IREC will be the fourth global ministerial level conference on renewable energy, following Bonn Renewables 2004, Beijing 2005, and WIREC 2008 (held in Washington, DC, US), and takes place from 17-19 February 2010 in New Delhi and Uttar Pradesh, India. The conference will consist of a ministerial meeting, business-to-business and business-to-government meetings, side events (symposiums, sectoral seminars and workshops) and a trade show/exhibition. For more information contact: S.S. Madan, Ministry of New and Renewable Energy, Government of India; tel: +91 11 24360404, ext. 1022; email: ss.madan@ss.in; internet: <http://mnes.nic.in/>

EXTRAORDINARY MEETINGS OF THE CONFERENCES OF THE PARTIES TO THE BASEL, ROTTERDAM AND STOCKHOLM CONVENTIONS: The ExCOP of the three chemicals conventions will take place in coordination with the eleventh special session of the UNEP Governing Council/Global Ministerial Environment Forum (GC-11/GMEF) from 24-26 February 2010 in Bali, Indonesia. These simultaneous meetings are aimed at giving high-level political support to the process of enhancing cooperation and coordination among the three conventions. For more information contact: a) Rotterdam Convention Secretariat; tel: +41-22-9178296; fax: +41-22-917-8082; e-mail: pic@pic.int; Internet: <http://www.pops.int>; b) Stockholm Convention Secretariat; tel: +41-22-917-8729; fax: +41-22-917-8098; e-mail: ssc@pops.int; Internet: <http://www.pops.int>; c) Basel Convention Secretariat; tel: +41-22-917-8218; fax: +41-22-797-3454; e-mail: sbc@unep.ch; Internet: <http://www.basel.int>

GC-11/GMEF: GC-11/GMEF, to be held from 24-26 February in Bali, Indonesia, constitutes the annual ministerial-level global environmental forum in which participants gather to review important and emerging policy issues in the field of the environment. For more information, contact: Jamil Ahmad, Secretary of the UNEP Governing Council; tel: +254-20-762-3431/762-3411; fax: +254-20-623-929/762-3748; e-mail: sgc.sgb@unep.org; internet: <http://www.unep.org>

CSD 18: This review-year session, taking place from 3-14 May 2010 at UN Headquarters, New York, US, will evaluate progress and identify constraints to implementing the issues on the thematic cluster for the eighteenth session of CSD, which will discuss: transport, chemicals, waste management, mining and the Ten-Year Framework of Programmes on Sustainable Consumption and Production Patterns. For more information contact: UN Division for Sustainable Development; tel: +1-212-963-8102; fax: +1-212-963-4260; e-mail: dsd@un.org; Internet: <http://www.un.org/esa/dsd/>

