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IGES

2007 Top News on the Environment in Asia

Institute for Global Environmental Strategies

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〈Reports are placed in alphabetical order〉

2007 Top News on the Environment in Asia — Summary

The Institute for Global Environmental Strategies (IGES) has been releasing a collection of the top news items on the environment in the Asia-Pacific region every year since 1998. This has been with the aim of collecting and organising information about environmental issues and policy trends in the region, and to report on how the region addresses environmental problems and how it works to create a sustainable society. For this year's top news on the environment in Asia, we have collected a total of 125 news items from three organisations and 23 countries. The news gathered does not necessarily represent the official stance of the nations and organisations, but all such information is carefully selected by researchers and institutes in environmental fields so as to reflect recent environmental trends in the Asia-Pacific region.

Information provided by countries varies widely. It is classified into seven categories in this summary: Global Warming, Air Quality, Water, Waste and Recycling, Forests, Nature Conservation, and Others, with general trends and typical examples.

1. Global Warming

The Asia-Pacific region is both a major source of greenhouse gas emissions and considered the region to suffer most seriously from the effects of climate change resulting from global warming. Reports on tangible effects are reported.

- Melting in the Himalayan glaciers has proceeded rapidly these past ten years due to global warming, and the UN Environment Programme (UNEP) is warning of the growing danger of glacial lakes bursting and flooding.
- According to a Sri Lankan report, over 70% of that country's disasters are climate-related and the poor are the worst affected. The report also notes that higher temperatures could ravage Sri Lanka's dry zone agriculture, while rising seas will affect the coastal economy.

On the other hand, concrete progress has also been made in action on global warming.

- The Japanese government announced its Cool Earth 50 strategy and proposed the common goal of reducing greenhouse gas emissions by half by 2050. At the 2008 G8 Summit in Toyako, Hokkaido, global warming including the framework of the post-Kyoto Protocol is set to be a prominent issue.
- Australia signed the instrument of ratification for the Kyoto Protocol in December. The country's government is committed to setting a target to reduce greenhouse gas emissions by 60% on 2000 levels by 2050 and setting a 20% target for renewable energy by 2020.

The importance of adaptation to climate change, in addition to its mitigation, is gaining recognition in Asia.

- Impoverished regions of Bangladesh vulnerable to climate change are implementing adaptation programmes at the local level.
- Climate-change adaptation programmes are underway in India in a wide range of areas, including crop improvement, enhanced drought-proofing and extending credit to farmers who suffer crop failure. Government expenditure on adaptation programmes exceed 2% of GDP.
- A Cambodian report states that a new challenge will be to secure funds for adaptation programmes in the least developed countries.

There are also indications of growing interest in Asia on co-benefits in action on global

warming.

- According to an IGES report, an experts' meeting on co-benefits discussed the feasibility of co-benefits in a variety of development projects.
- The integration of climate concerns in the sustainable development has been mainstreamed in India with further promotion of energy efficiency and climate friendly technologies.

Reports from a number of countries addressed the issue of biofuels, which have drawn attention as an alternative energy source contributing to the realisation of low-carbon society.

- Thailand has made the use of B2 fuel (a mixture of 2% biodiesel and 98% diesel) mandatory as of April 2008.
- The Malaysian government has announced subsidies for sales of EnvoDiesel, its first biofuel.
- In Myanmar, large scale jatropha cultivation for the source for biofuel has been planned.
- Singapore has launched its National Energy Policy Report, which includes strategies for expanded investment in energy development such as biofuels.
- Meanwhile, as an IGES report points out, excessive promotion of biofuels may aggravate some environmental problems, such as deforestation and land degradation, and cause competitive problems with food supply.

In Japan, Republic of Korea, China and New Zealand, progress has been made in laying the foundations for emissions trading as forecasts see a rapid expansion of emissions-trading in Asia.

2. Air Quality

Air pollution resulting from motorisation and industrial activity has grown increasingly severe with rapid economic development and increasing urbanisation, as many reports show.

- In Metro Manila, the Philippines, air pollution resulting primarily from automotive exhaust is causing respiratory and cardiovascular disorders, leading to a reported nearly 5,000 premature deaths annually.
- Air pollution resulting from automotive exhaust and dust particles exceeds domestic and international standards in the Nepalese capital of Katmandu as well and is considered a major health hazard.
- While the Pakistani government is working to improve air quality through such measures as promoting compressed natural gas (CNG) cars, illnesses and premature mortality caused by air pollution account for some 50% of environmental damage cost and are assumed to be the cause of over 20,000 deaths annually.
- Air pollution resulting primarily from automotive exhaust is exacerbating in Colombo, Sri Lanka, and the country's Supreme Court has asked the state to take remedial measures.

2007 marked the 20th year since the adoption of the Montreal Protocol on Substances that Deplete the Ozone Layer and related news articles worthy of mention are featured.

- China, which had been the world's largest national producer of ozone-depleting substances, closed its production plants, and the volume of chlorofluorocarbon (CFC) production has dropped substantially.
- Bhutan received a UNEP award for its achievement in reducing imports of ozone-depleting substances.

3. Water

Water is one of the most pressing environmental issues facing the Asia-Pacific region.

- According to a report from the UNEP, over one billion people in Asia will be affected by "water stress" by 2050 as populations increase and living standards rise.

- The 1st Asia-Pacific Water Summit, held in Beppu, Japan, in December, discussed solutions to water and sanitation issues and stressed that the economic and developmental planning of Asian countries should give the highest priority to water and sanitation.

Efforts for improving aqueous environments are underway around the region.

- China has formally implemented drinking water quality standards and has established especially high standards for the safety of drinking water.
- In conjunction with World Water Day on 22 March, a conference was held in Malaysia entitled "Managing Challenges towards Sustainable Water Resources and Environment". The conference recommended water-shortage crises be addressed by saving rainwater and sourcing underground water.
- Efforts involving local communities are underway to construct sustainable water supply systems in the Ili-Balkhash basin in Central Asia.

4. Waste and Recycling

As waste management has become a serious and major issue facing numerous cities in Asia, many countries are reporting a range of efforts in this area.

- Republic of Korea has enhanced its recycling policies for construction waste, achieving a broad increase in supplies of recycled aggregate obtained from construction debris.
- An amended Law for the Promotion of Sorted Collection and Recycling of Containers and Packaging was enacted in Japan. The amended law introduces measures encouraging companies to reduce the use of plastic shopping bags and requires those using large volumes of plastic shopping bags to report to the government annually on their efforts to this end.
- With assistance from the Japan International Cooperation Agency (JICA), the Vietnamese capital of Hanoi launched a 3R Initiative to reduce, reuse and recycle waste to promote domestic-waste separation.
- Malaysia has been considering new legislation on solid waste management that includes regulations on construction of landfills and requirements imposed on manufacturers to collect, dispose of and recycle their products in a safe manner.
- In the Philippines a waste-to-methane power plant has been developed which collects waste from Metro Manila and generates power. The largest-scale such operation in the Asia-Pacific region, the plant uses methane, generated by decaying waste, and is expected to have a generating capacity of 15 megawatts.
- Bangladesh has completed construction of the country's first environmentally-friendly sanitary landfill in Dhaka.
- Pakistan's largest city Karachi has reached agreement with a Chinese firm on an integrated waste management project and has begun door-to-door collection of ordinary solid waste and scientific treatment of medical hazardous waste.

5. Forests

Amid gathering concerns over global warming, interest is mounting globally in conserving forests, an important mechanism of greenhouse gas absorption.

- The 13th Session of the Conference of the Parties to the Climate Change Convention (UNFCCC COP13) held on the Indonesian island of Bali in December held discussions on forests and climate change, including the REDD (Reducing Emissions from Deforestation and Degradation) scheme. It was at COP13 that the World Bank announced the launch of the Forest Carbon Partnership Facility (FCPF), a fund to support developing country efforts to curtail deforestation.

Efforts have been featured from a number of countries to conserve their substantial woodlands.

- In Bhutan, the National Environment Act was endorsed, laying the legal foundations for maintenance of the country's forest cover at over 60%. Bhutan's Department of Forestry is also encouraging the use of bamboo as a wood substitute in such applications as building materials and fuel, and seedlings have been distributed to start large-scale bamboo cultivation.
- A new Forest Law was approved in Mongolia to encourage community-based management of forest resources.
- Lao PDR is implementing a new forest management strategy that reclassifies forests as productive, protected and otherwise, each such classification subject to the appropriate management
- A plan for ecosystem restoration in the tropical rainforests of Sumatra using sustainable forest resources is to go forward with government support in Indonesia.
- In the Philippines, Toyota Motor Corp. of Japan is to carry out a major reforestation project on some 2,500 hectares of land in a protected landscape.
- A loan facility has been launched in Papua New Guinea for sawmills and timber yards that have obtained forestry certification and is expected to grow as an effort promoting sustainable management of forest resources.

6. Nature Conservation

The natural environment in the Asia-Pacific region is reported to be in dire circumstances.

- According to a recent study by Bird Conservation Nepal, the population of about two-thirds of the bird species in the country has declined and 89% of the country's birds face habitat loss and damage.
- Despite an expansion of conservation lands in New Zealand, dire circumstances threaten the protection of many fauna in danger of extinction, including the kiwi and yellowhead.
- The Greater Mekong Environmental Outlook 2007 released by UNEP points out that the greater Mekong region, which continues to undergo rapid economic development, may suffer irreversible damage to its ecosystems unless measures are devised to address these and that economic activities dependent on its natural resources may also be severely affected.

On the other hand, efforts to protect the substantial natural environment have also been featured.

- In Nepal, an action plan to invest one million dollars in the protection of tigers and their habitats has reached the final stage of drafting, intended to consolidate a variety of protection programmes on tigers over the next five years.
- In a mangrove forest reserve in the state of Perak, the Malaysian Ministry of Natural Resources and Environment is conducting captive breeding of the Milky stork, which faces extinction. In addition, the extensive mangroves and natural resources of the Malaysian island of Langkawi were accredited by UNESCO and the island designated the first geopark in Southeast Asia.

7. Others

Comprehensive Policy Implementation

- In China, where the environmental disruption accompanying rapid economic growth has become a major issue, severe administrative measures are being applied to areas suffering marked environmental deterioration. The State Environmental Protection Administration (SEPA) applied measures, including the suspension of planned projects, to power companies and administrative regions with pronounced levels of energy consumption and polluting emissions. Additionally, the State

Council has decided on a national survey of pollution, which it is scheduled to implement in 2008.

- In July, Republic of Korea enacted a Framework Act on Sustainable Development.
- Lao PDR also continues to work towards sustainable development, and the country agreed to establish new organisations responsible for national land management, as well as water resources and the environment.
- Vietnam has newly established police bureaus in charge of environmental matters under the police force of the central-run cities and provinces. These bureaus deal with violations of the Law on Environment.

Health Hazards and the Environment

- According to a UNEP report, Asia is experiencing greater incidences of heat stress and climate-induced diseases resulting from rising temperatures and rainfall variability. South and Southeast Asia are forecast to suffer increased illness and mortality resulting from diarrheal diseases, and South Asia to experience an increased incidence of cholera.
- Close to 6.6 million people die annually in Asia due to environmental health risks, and in August Asian environment and health ministers adopted the Bangkok Declaration on Environment and Health in order to improve this state of affairs.
- The United States government endorsed a grant of 400,000 dollars to clean up Agent Orange/dioxin sprayed during the Vietnam War, and work is to start on environmental remediation.

Natural Disasters and the Environment

In recent years Asia has experienced frequent large-scale natural disasters, including tsunami and flooding.

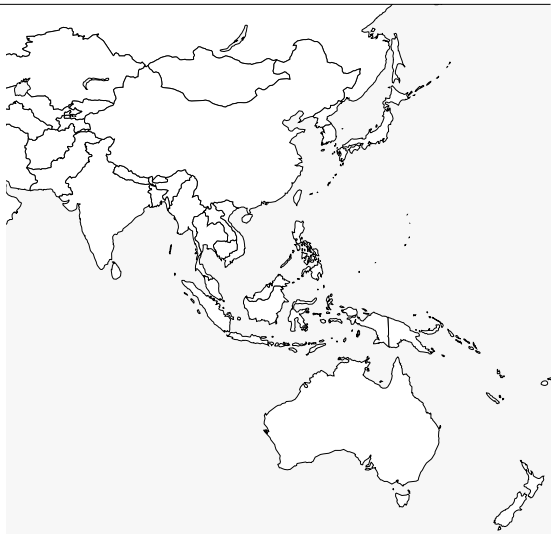
- Indonesia experienced numerous incidents of flooding from January to May. Jakarta has suffered the worst large-scale flooding in years, which has had a major impact on its infrastructure.
- Bangladesh has suffered extensive casualties due to massive cyclones and mudslides resulting from large-scale flooding and concentrated heavy rains.
- Lao PDR suffered frequent local flooding in various regions in October that inflicted major damage on agricultural production.

On the other hand, progress was evident in action on such natural disasters.

- In Thailand a master plan on floods, storms and landslides was approved to prevent natural disasters and provide assistance to victims. Additionally, the installation of additional tsunami detection buoys is planned in the Indian Ocean, allowing Thailand and the Indian Ocean countries to receive earlier tsunami warnings.
- Lao PDR has formulated a national strategy to prevent and reduce the impact of natural disasters and announced improvements to capacity of Sentinel organisations and the implementation of the Hyogo Framework for Action adopted by the UN World Conference on Disaster Reduction.

The Asia-Pacific Region

Institute for Global Environmental Strategies (IGES)



1. The Developmental Benefits of Climate Policies: Attracting Attention in Asia

Policies that generate co-benefits, the developmental benefits of climate actions, can enable developing countries to mitigate greenhouse gases and pursue more imminent developmental objectives. They therefore offer one of the few avenues through which developing Asia could effectively participate in the post-2012 climate change regime. While this potential may presumably attract policymakers' attention, the developmental benefits of climate policies have often gone unnoticed in Asia. To heighten policymakers' awareness of such benefits, the Institute of Global Environmental Strategies (IGES) has organised a series of meetings in the latter half of 2007.

In August 2007, for instance, IGES convened a scoping consultation in Bangkok, Thailand to examine the feasibility of estimating a broader range of "developmental" co-benefits and explore the methodological and socio-political barriers to integrating these estimates into climate policies in Asia. Subsequently, IGES held multi-stakeholder consultations on the post-2012 climate regime in Beijing and Delhi. The meetings produced a broad consensus that the post-2012 climate regime would benefit greatly from an architecture that recognised and rewarded climate policies and measures that generated developmental co-benefits.

The importance of co-benefits has also gained attention in international climate negotiations. At COP13 held in Bali, Indonesia, on 3-14 December 2007 negotiators agreed on "Bali roadmap", which states that developing countries should "consider nationally appropriate mitigation actions ... in the context of sustainable development..." With a growing emphasis on mitigation actions that are good for both climate and development, co-benefits are likely to attract much greater attention from Asian policymakers for years to come.

2. Roundtable on Sustainable Biofuels Stakeholder Outreach Meeting in Asia

The debate continues on the merits of biofuels as an alternative source of energy for transport. They have the advantage of reducing greenhouse gas emissions, diversifying the energy portfolio and their perceived economic opportunity for rural development is highly regarded in feedstock producing countries. However, irresponsible promotion of biofuels could endanger food security, induce displacement of indigenous people and may aggravate environmental problems brought by possible deforestation, biodiversity loss, land degradation and water pollution. There is the danger that if not implemented in sustainable way, biofuels will end up causing more problems

than they solve.

To ensure that biofuels can be produced and utilised in sustainable manner and in response to the need for an international standard, the Roundtable on Sustainable Biofuels (RSB), lead by EPFL, is a multi-stakeholder initiative tasked to develop standards for the sustainability of biofuels. UNEP and EPFL in partnership with Challenge Bibendum sponsored the Roundtable on Sustainable Biofuels Stakeholder Outreach Meeting in Asia which was held on 13-14 Novemeber 2007 in Shanghai, China. It was attended by various stakeholders representing non-governmental organisations, companies, governments and non-governmental groups in Asia as part of the worldwide consultation process to discuss the draft of the principles and criteria for sustainable biofuels.

Details:
http://www.bioenergywiki.net/index.php/Roundtable_on_Sustainable_Biofuels#Standards

3. Reduced Emissions from Avoided Deforestation: International Initiatives

The UN Food and Agriculture Organisation's (FAO) Global Forest Resource Assessment (2005) reveals that global forest loss has continued into this decade at alarming rates with deforestation of 13 million ha annually from 2000－2005. The need to conserve natural forests is receiving increasing international attention because of growing concern for human-induced global warming. It is estimated that deforestation in the tropics will release an estimated 87 to 130 billion tonnes of carbon by the end of the century, which is equivalent to the emissions from a decade of fossil fuel consumption at current rates.

Responding to the call of several forest-rich developing countries, the United Nations Framework Convention on Climate Change (UNFCCC) launched a two-year initiative to assess new policy approaches and positive

Log pond, concession forest, Sarawak

incentives and technical and scientific issues for RED (Reducing Emissions from Deforestation) in developing countries. Under this initiative, the UNFCCC organised two international workshops on avoided deforestation in August 2006 and March 2007.

At the G8 meeting in Germany in June 2007, the World Bank secured high-level political backing for a new "Forest Carbon Partnership Facilit" (FCPF) to set the stage for a future, large-scale system of positive incentives for reducing emissions from deforestation by testing the feasibility of different methodological approaches to payment schemes. The Bank launched the FCPF at the Thirteenth Session of the Conference of Parties (COP13) to the UNFCCC in Bali in December 2007. To coincide with COP13, a Forest Day was held on 8 December to discuss forest issues central to the climate change debate.

Source: http://www.cifor.cgiar.org/Events/COP-ForestDay/Introduction.htm

4. The First Asia-Pacific Water Summit was Held in Beppu, Japan

10 regional heads of state, 31 Ministers and representatives from over 36 Asia-Pacific countries and regions met together at the 1st Asia-Pacific Water Summit that was held on 3 - 4 December 2007 (in Beppu, Oita Prefecture,

Japan) and discussed solutions and actions for water and sanitation issues. The summit had three priority themes which were identified in the regional document for the 4th World Water Forum in 2006: water financing, water-related disaster management, and water for development and ecosystems. In the summit, climate and water became a main discussion topic, and two sessions directly related to climate change and water were held, namely "Climate Change, Glaciers, and Water Resources in the Himalayan region" and "The Small Islands' Dialogue on Water and Climate". In the message from the summit, participants urged the 13th Conference of the Parties of UNFCCC to be held in Bali to take into account the relationship between water and climate change. The regional launch of the International Year of Sanitation 2008 was also organised during the session. Related to the Millennium Development Goals (MDGs) on safe water access and sanitation, the summit participants reaffirmed the target of halving the number of the people without access to safe drinking water by 2015 and also agreed to reduce it to zero by 2025. It was also stressed that economic and development plans should give highest priority to water and sanitation.

(For further information, please visit
http://www.apwf.org/index.html)

5. The SAICM Asia-Pacific Regional Meeting

Adopted by the February 2006 International Conference on Chemicals Management (ICCM) in Dubai, the Strategic Approach to International Chemicals Management (SAICM) stipulates the risk reduction based on scientific assessment, preventive approaches, collection and dissemination of information on harmful chemical substances, the promotion of the formation of national chemical management regimes and technical cooperation with developing countries with the objective of achieving production and use of chemicals in ways that minimise their impact on health and the environment by 2020.

International conferences will be held to promote SAICM at the regional level during the period leading up to the second meeting of the ICCM in 2009. Of these, the Asia-Pacific Regional Meeting was held in Bangkok on 21-23 May 2007.

Government representatives from 30 Asia-Pacific countries attended the SAICM Asia-Pacific Regional Meeting, together with observers from three countries in other regions and two organisations, and representatives of eight inter-governmental organisations and 21 non-government organisations. Japanese participants included officials of the Ministry of the Environment and the Ministry of Economy, Trade and Industry (METI), as well as industry and NGO representatives.

As a SAICM regional focal point in the Asia-Pacific region, the Ministry of the Environment, Japan played a central role in preparing the conference and served as joint chair with Thailand, the host country.

The Meeting received reports on other regional group conferences and on activities relating to the implementation of SAICM and served as a venue for information exchange about such topics as the working group on coordination of three treaties dealing with chemicals and waste, the status of QSP (Quick Start Programmes, which provide financial support for SAICM in developing countries) and the status of guidance documents for the implementation of SAICM.

The Meeting adopted a document prescribing the roles and responsibilities of the regional focal point (Japan) and the regional representatives on the QSP management board (Thailand and Iran) in the Asia-Pacific region. The support of representatives of several region countries and of representatives of international organisations and NGOs was resolved for the activities of the regional focal point working towards the second ICCM meeting, and an

exchange of information was conducted concerning action priorities at the national and regional levels towards implementing SAICM in the Asia-Pacific region and examining regional project proposals under the QSP.

6. OECD Conference on Material Flows Held in Japan

In September, OECD and the government of Japan organised a two-day seminar on material flows and resource productivity. The meeting was attended by over 100 participants from OECD countries, the European Commission, UNEP, industry, research institutes and non-OECD countries (China, Russia, India and Thailand).

The presentations and discussions took stock of three years' work on integrated approaches to natural resource, waste and materials management. The participants shared experiences in the use of indicators for resource efficiency policies. Many OECD countries currently use such indicators to evaluate past trends and to monitor progress. Some countries use indicators for setting targets in their economic-environmental policy planning, while other mainly use indicators for broader reporting purposes. Countries show a variety of trends in resources use, but some countries have achieved a certain decoupling of materials use from economic growth. However, it is suspected that many advanced nations rely increasingly on imported resources and that the observed decoupling is at least to some degree a burden shifting to less developed countries. The meeting participants therefore showed great interest in indicators that include not only domestic resource extraction and the directly imported materials but also indirect flows caused by the extraction and processing of imported materials. Another issue that attracted great attention was indicators that show the environmental impacts caused by different material flows. Current material flow approaches aggregate material flows on a mass basis and does not consider differences in environmental impacts related with those flows. Some countries, including the European Commission, are currently testing or developing such indicators. Other countries believe that it is better to use the existing indicator approaches and try to promote the use of material flow indicators in policy making and planning. Finally, it was noticed that countries that have been successful in promoting the use of indicators in policy processes have a strong collaboration among research, policy making and statistics. Such collaboration appears to be a key for constructing virtuous circles of indicator development, application, learning and use in policy.

7. Accelerated Environmental Improvement for Emissions Trading Initiated by the Private-Sector

Europe has already put in place a market environment for the smooth operation of trading in greenhouse gas emissions credits, including a dedicated emissions trading exchange, and thanks to the progress of the private-sector initiative it is now underway towards the formation of a market in Asian countries, the market for emissions trading is forecast to expand rapidly.

In Japan, major financial institutions have established a platform that mediate trading in emissions credits between buyers and sellers, including trade in small lots. Japan has also seen the launch, by a private firm, of a scheme for individuals to sell emissions credits, and other private-sector initiatives have contributed greatly to the building of the foundations for emissions trading.

In Korea the securities and futures exchange is preparing the launch of an exchange for trading carbon dioxide emissions credits in 2008, and in China (where it is government agencies

that are the prime movers) the Chinese government and the United Nations Development Programme are working together on plans and studies towards setting up an emissions exchange in Beijing in the near future.

A major financial institution in Qatar is working to launch an emissions exchange in 2009, bearing in mind the market in China and also in India, which is geographically nearby and forecast to expand rapidly in the future.

Emissions trading is a mechanism that employs market forces to achieve greenhouse gas reductions of outstanding corporate cost-efficiency, but greenhouse gas reductions will require a social infrastructure in the form of a broader market environment in the future.

8. Decadal 4th International Conference on Environmental Education Held in Ahmedabad, India

The Fourth International Conference on Environmental Education was held on 24-28 November in Ahmedabad, India. Held jointly by UNESCO and UNEP once every ten years, the conference was attended by over 1,500 people from 97 countries this year and addressed a wide range of issues involving environmental education.

At the opening ceremony, R.K. Pachauri discussed the threat of climate change. Dr. Pachauri is director of The Energy Research Institute (TERI) and chair of the Intergovernmental Panel on Climate Change, who was awarded the Nobel Peace Prize this year together with former US Vice President Al Gore. Dr. Pachauri also stressed the importance of cooperation of civil society in working towards measures to combat climate change and of efforts to transform the consciousness and behaviour of young people in particular. He closed by quoting Mahatma Gandhi, founder of the non-violence and independence movement, that "You must be the change you want to see in the world."

Sunita Narain, director of the Centre for Science and Environment, pointed out that current warming was brought about by the economic development of the developed countries and the fact that we cannot hope for development without carbon emissions. He also advocated the achievement of well-being through restrained energy usage, such as popularising the new principle of sufficient economies.

Representing the Zero-Emissions Research Initiative, Gunter Pauli described environmental education spreading through schools around the world and offered leading examples of the construction of environmentally-friendly school facilities, stressing the importance of these activities.

Sectional meetings were also held on such timely topics as corporate social responsibility and training community leaders. In addition, the United Nations University Institute of Advanced Studies announced the establishment of an Asian network (ProSPER.Net) of graduate schools of environmental education, and IGES reported on the progress of a programme for fostering educational centres for sustainable development in Cebu in the Philippines, a showcase programme of the Asia-Pacific Forum for Environment and Development (APFED).

Lastly, the Conference adopted the Ahmedabad Declaration, a pronouncement promoting conversion of innovation and values through education and action towards the achievement of environmental preservation, economic and social equity, and sustainable ways of life, exemplified in Mahatma Gandhi's words, "Let my life be my message."

9. The Tripartite Environment Ministers Meeting among China, Japan and Republic of Korea (TEMM)

Three Ministers, Minister KAMOSHITA Ichiro of the Ministry of the Environment of

Japan, Vice Minister LI Ganjie of the State Environmental Protection Administration of the People's Republic of China, and Minister LEE Kyoo-Yong of the Ministry of Environment of the Republic of Korea, met at Toyama, Japan, for the Ninth Tripartite Environment Ministers Meeting on 4-6 December 2007. The three Ministers exchanged their views on global and regional issues of common concern. A Joint Communiqué was issued highlighting the consensus reached among three Ministers on some important issues, including global climate change, e-waste management, 3Rs, chemicals management, dust and sand storm mitigation, biodiversity conservation, regional air pollution, marine litter management and water environment management.

Meeting and releasing a joint communiqué every year since 1999, TEMM has been the highest level of intergovernmental meeting on environmental issues in Northeast Asia. Not only identifying long-term visions for regional environmental cooperation, TEMM also carries out several cooperative projects to promote regional environmental improvement. These include ecological conservation in northwest China, freshwater pollution prevention, environmental industry cooperation, joint environmental training, TEMM website (www.temm.org) and tripartite environmental education network. Promoted successfully by the TEMM, a project on the prevent and control of dust and sandstorms in Northeast Asia was launched in 2003 by China, Japan, Republic of Korea and Mongolia in conjunction with UNEP, UNESCAP, ADB, and the secretariat of UN Convention to Combat Desertification. This project aims to establish institutional groundwork, demonstration project on desertification prevention, and dust storm monitoring and early warning system networks.

The Asia-Pacific Region

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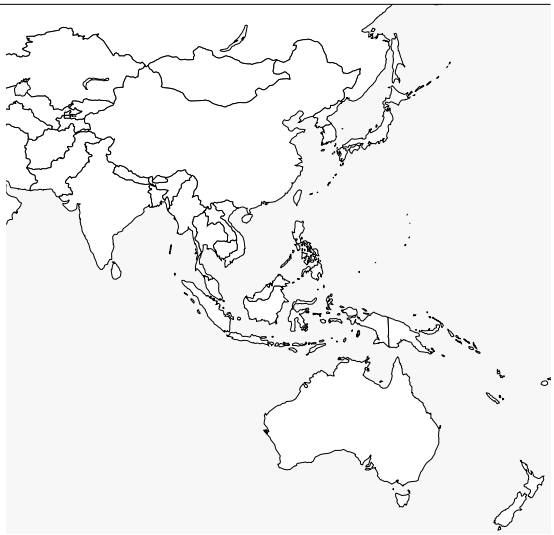


1. Millions at Risk of Hunger and Water Stress in Asia Unless Global Greenhouse Emissions Cut

Food and water shortages are likely to increase in Asia unless action is taken to curb the rise in greenhouse gases, according to the Intergovernmental Panel on Climate Change (IPCC). Increasing temperatures and extreme weather patterns are already taking their toll on crop yields, which are declining in many parts of the Continent.

Future climate change is expected to put close to 50 million extra people at risk of hunger by 2020, rising to an additional 132 million and 266 million by 2050 and 2080 respectively, says the report of IPCC Working Group II.

It suggests that a 2℃ increase in mean air temperature could decrease rain-fed rice yields by 5-12% in China; under one scenario net cereal production in South Asian countries is projected to decline by 4-10% by the end of this century.

Water stress is cited as one of the most pressing environmental problem facing the region. Along with population growth and rising standard of living, this could adversely affect more than a billion people in Asia by the 2050s.

Residences of millions of people living in the low lying areas of South, Southeast and East Asia such as in Vietnam, Bangladesh, India and China could be flooded as a result of projected sea level rise. Almost 60% of this increase will occur in South Asia (along coasts from Pakistan, through India, Sri Lanka and Bangladesh to Burma), while about 20% will occur in Southeast Asia.

Nearly half of Asia's biodiversity is at risk because of climate change. Climate change will exacerbate threats to biodiversity resulting from land use/cover change and population pressure in most of Asia. Marine and coastal ecosystems in Asia are likely to be affected by sea level rise and temperature increases.

Rising temperatures and rainfall variability had led to more climate-induced diseases and heat stress in Central, East, South and Southeast Asia. Increases in illness and mortality resulting from diarrhoeal disease are expected in South and Southeast Asia. Warmer temperatures in coastal waters would exacerbate the abundance and/or toxicity of cholera in South Asia.

2. Ground Breaking Report Underlines Vital Role of Ecosystems and Natural Resources in Reducing Poverty

Rapid economic growth of recent decades is expected to continue in the Greater Mekong countries, but growth must be matched with efforts to reverse negative impacts on the environment if the region's poor are to benefit, according to the Greater Mekong Environmental Outlook 2007, released in Bangkok. The report is the first collaborative assessment of the sub-

region's environment.

One of the fastest growing regions in the world, economic growth has boosted incomes and well being in many countries, particularly Thailand, Vietnam and Yunnan. However, much of the growth has bypassed more than 70% of its rural population, many of whom are directly dependent on natural resources for livelihoods and incomes. Economic growth, coupled with growing population pressures, has also led to widespread pollution, land degradation and depletion of natural resources, the report said.

Unless addressed, these changes may cause irreversible ecosystem damage with far-reaching implications for economic activities that depend on natural resources. They may also increase the vulnerability of poor and rural populations to health threats, natural disasters, food insecurity and community fragmentation, the report added.

The report stated that the five countries and two provinces of the Greater Mekong Subregion (GMS) — Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, and Yunnan and Guangxi provinces in southern China — are now addressing some of the root causes of environmental degradation through initiatives such as the Asian Development Bank's GMS Program.

Land degradation, air and water pollution, and biodiversity loss were cited as key issues in the GMS. Land degradation, resulting from forest loss followed by agriculture, is also a major problem across the subregion.

3. Environment and Health Officials Pen Their Commitment to Tackling Environment and Health in Asia Pacific

Ministers and high level officials of environment and health from South-East and East Asian countries endorsed the Bangkok Declaration on Environment and Health on 9 August 2007 at a Ministerial meeting organised by the United Nations Environment Programme, the World Health Organization, the Thai Ministries of Natural Resources and Environment and Public Health and the Chulabhorn Research Institute.

The Bangkok Declaration, endorsed during the meeting, seeks to reduce the nearly 6.6 million deaths in Asia each year attributable to environmental health risks. It also provides a mechanism for sharing knowledge and experiences, improve policy and regulatory frameworks at national and regional levels, and promote implementation of integrated environmental health strategies and regulations. The Declaration includes a regional Charter aimed at helping Southeast and East Asian countries develop joint policies and programmes on environment and health.

The regional Charter identified six environmental and health priorities over the next three years, namely: air quality; water supply, hygiene and sanitation; solid and hazardous waste; toxic chemicals and hazardous substances; climate change, ozone depletion and ecosystem change; contingency planning, preparedness and response to environmental health emergencies. A regional thematic working group has been established for each priority area.

The Ministerial meeting was organised to strengthen cooperation between environment and health ministries within countries and across the region. It was attended by environment and health ministers and high level officials from 14 countries in the Asia-Pacific region and included representatives from the Asian Development Bank, the United Nations Development Programme, the United Nations Economic and Social Commission for Asia and the Pacific, and the World Bank.

A Second Ministerial Regional Forum planned in 2010 will review progress in implementing the regional Charter.

4. Fast Melting Glaciers Could Raise Likelihood of Floods and Water Shortages

The rapid shrinking of Himalayan glaciers, which has accelerated at a considerable rate over the past decade, could have catastrophic consequences for communities living downstream and millions who rely on glacial melt water, a new report, The Impact of Climate Change on Himalayan Glaciers and Glacial Lakes, says. The report was produced by the International Centre for Integrated Mountain Development (ICIMOD) with the United Nations Environment Programme (UNEP) and launched during the World Environment Day regional celebrations held in Kathmandu, Nepal on 5 June 2007.

The report provides detailed case studies on the impact of warming temperatures on glaciers and glacial lakes in two glacial hot-spots in the Himalayan region and warns of the increasing likelihood of glacial lake outburst floods (GLOFs) — when rising waters from glacial melt breach the dam holding back a glacial lake — and calls for early warning and mitigation measures to avert disaster.

The extended Himalayan mountain range feeds nine perennial river systems in the region which constitute a lifeline for nearly 1.3 billion people downstream. Nearly 15,000 glaciers and 9,000 glacial lakes have been identified across five countries in the region — Bhutan, Nepal, Pakistan and selected basins of India and China. Of these, some 200 lakes have been identified as potentially dangerous.

Observations of individual glaciers indicate that, in some cases, rates of retreat have doubled since the early 1970s, though they vary from basin to basin. The Dudh Koshi is the largest sub-basin and most densely glaciated region in Nepal and contains 12 of the 20 potentially dangerous glacial lakes identified in the country. The glaciers in this basin are retreating at an average of 10 to 60 m annually; the Imja glacier by as much as 74 m a year.

In Bhutan, the Luggye Glacier retreated by 160 m between 1988 and 1993 resulting in rapid growth of Lake Luggye Tso. The Raphstreng Glacier retreated 35 m per year on average between 1984 and 1988; the retreat rate almost doubled to 60 m per year between 1988 and 1993.

5. China Closes Ozone Depleting Chemical Plants

China, the world's largest producer of chlorofluorocarbons (CFC) and halon, shut down five of its six remaining plants in July 2007, putting the country two and a half years ahead of the Montreal Protocol's 2010 deadline for phase-out of the two ozone depleting chemicals.

The facilities were closed during a symbolic ceremony organised by Chinese authorities in recognition of chemical companies' efforts to stop manufacturing products that harm the ozone layer and as part of the global 'Remembering Our Future' initiative sponsored by the United Nations Environment Programme (UNEP).

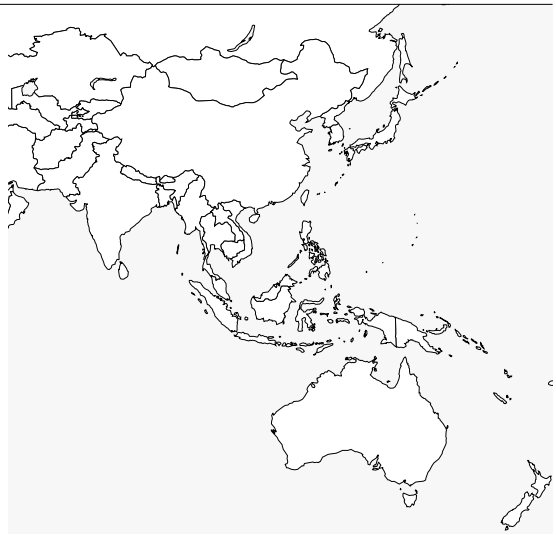
These chemicals contribute to the weakening of the ozone layer allowing for dangerous ultraviolet radiation producing skin cancer, eye cataracts and suppression of human immune system.

The shut down of the five facilities, in Chiangshou City, near Shanghai, will bring China's production of CFCs to just about 550 metric tons, down from 55,000 metric tons at its peak in 1998. The remaining production is being kept strictly to produce CFCs for metered-dose inhalers, used in the treatment of asthma and chronic obstructive pulmonary disease. The phase-out of the majority of CFC production marks the second major class of ozone depleting chemicals that China has ceased to produce. China has also recently ended the production of halon for emissive use, in other words, any use that will have the chemical eventually end up in the atmosphere.

China became the largest producer of ozone depleting chemicals following the shut down of plants producing these chemicals in developed countries in 1996. The closure of the Chinese plants now puts India and South Korea as leading producers of the two ozone depleting chemicals in Asia Pacific, with a remaining combined production level of about 15,000 m/tons.

Central Asia

Makeev Talaibek
Executive Director
The Regional Environmental Centre for Central Asia (CAREC)



1. Belgrade 2007 UN Ministerial Conference

Central Asia representatives at the VI Pan-European Ministerial Conference "Environment for Europe" Belgrade, Serbia, October 2007 discussed the progress in implementation of the United Nation Economic Commission for Europe (UNECE) on Education for Sustainable Development (ESD) in Central Asia. Central Asian representatives included Ministries of Environment and Education and NGOs of Central Asian countries.

The report "Progress review on education for sustainable development in Central Asia: achievements, examples of best practice and proposals for the future" was presented. ESD is in the frame of the Central Asian Initiative (CAI) which aims to encourage tangible result-based project management and implementation. The new "Manual on introduction of ESD in the Republic of Kazakhstan" was also presented and disseminated. The goal of the manual is to provide trainers on ESD for pre-school institutions, junior and secondary schools. Such capacity and interest in ESD in Central Asia is lacking; thus the need for implementation is crucial.

All the countries of Central Asia, UNECE, United Nations, and international and nongovernmental organisations have supported the offer of Kazakhstan to hold the Conference of Ministers in Astana, 2011 as a step to increase the role of Kazakhstan in international processes.

Source: www.carec.kz

CAREC side-event Belgrade UN Conference 2007
©CAREC

2. GTZ Desertification Workshops in Central Asia

The German Agency for Technical Cooperation (GTZ Convention Project to Combat Desertification) hosted two training workshops in Central Asia this year. The first workshop was in July about Participatory Land Use Planning at the local level. Training was held at the Regional Environmental Centre for Central Asia's (CAREC) office in Almaty, and was conducted by GTZ. The seminar provided participants with methods and tools which they later practiced during a field trip to the villages of Shien and Dzhambul Oblast.

Tamshy Village Council, Kyrgyz pasture management CAMP project
©CAREC

In November 2007, a workshop on common pool resource management was held at Issyk-Kul, Kyrgyzstan. Participants included representatives from Central Asian NGOs (CAMP for Sustainable Rural Development, GTZ Convention for Combating Desertification, CAREC, UNDP, CACILM and UNCCD). International participants included Turkey's NGO TEMA and its UNCCD Focal Point. CAREC supports Central Asia dialogue for environment and sustainable development and its partner project with Drynet, a network for dryland ecosystems. Workshop activities consisted of an interactive exhibition of project activities on sustainable land use in Central Asia and beyond, an excursion to Tamshy village where village-level pasture management is occurring, NGO presentations, and training on local agreements for natural resource management by theory and group project application.

Source: www.carec.kz

3. Aarhus for ICTs

"Capacity Building for the Aarhus Clearinghouse Mechanism and Electronic Information Tools" June 2007 sub-regional workshop was conducted at the Regional Environmental Center for Central Asia (CAREC) in Almaty, Kazakhstan. The Aarhus Convention supports access to information, public participation in decision-making and access to justice on environmental matters. The workshop provided a forum for discussion and exchange of good practices and possible conditions for increasing participation of state institutions and civil society, as well as the necessity of Internet communication technologies (ICTs) in Central Asia. Free exchange of information coupled with the advancement of ICTs requires further development in Central Asia.

The 8th meeting of the Working Group of the Parties to the Convention was held in Geneva from 31 October to 2 November 2007. The meeting was attended by over 30 country parties, UNITAR and the Regional Environmental Centre for Central Asia, among many other NGOs. Central Asia's participation meant that a partnership developed with the Environment Action Network for Central Asia and Russia (CARNet) to support digital information networks for dissemination of environmental information. A second joint project aims to prepare a manual for Central Asia and the Caucasus in local languages.

Source: www.carec.kz

4. Clean Drinking Water to the Ili-Balkhash Basin Communities

The Ili-Balkhash basin (IBB) is one of the largest lacustrine ecosystems of the globe providing essential ecosystem services for biodiversity and humans in Central Asia. It occupies a territory of 413 thousand sq km in South-Eastern Kazakhstan and North-Western China. The basin houses a fifth of the country's population; half are villagers who lack clean water and adequate sanitary conditions.

CAREC in cooperation with the International Centre for Environmental Financing (ICEF), and with the financial support of the Norwegian government since August 2006 are supervising the project《Water supply in the villages of the

Ili-Balkhash basin》. The goals of the project are (1) creation of sustainable methods and management of using water supply systems in villages, and (2) creation of a Financial Cooperative covering 10-12 villages of the Almaty region.

The project is to develop the local population's capacity to manage water management issues. Therefore, the population contributes financially to the project, which includes their participation in repairing the water pipe system, and its further maintenance. The district government also contributes financially to the project, so that local government is involved. Implementation ensures community autonomy and decentralisation of water services.

Source: www.carec.kz

Australia

Peter Woods
Chief Information Officer
Australian Government Department of the Environment, Water, Heritage and the Arts

1. Ratifying the Kyoto Protocol

On 3 December 2007 the Prime Minister of Australia, the Hon Kevin Rudd, MP signed the instrument of ratification of the Kyoto Protocol. This was the first official act of the new Australian Government, demonstrating the Government's commitment to tackling climate change.

Australia will become a full member of the Kyoto Protocol before the end of March 2008.

The Australian Government is committed to setting a target to reduce emissions by 60 per cent on 2000 levels by 2050; establishing a national emissions trading scheme by 2010, and setting a 20 per cent target for renewable energy by 2020 to expand the use of renewable energy sources such as solar and wind.

Further information:
http://www.pm.gov.au/news/releases/2007/media_release_00003.cfm

2. Climate Action in the Asia-Pacific Region

The Asia-Pacific Partnership on Clean Development and Climate (APP) brings together Australia, China, India, Japan, Republic of Korea and the United States of America to address the challenges of climate change, energy security and air pollution in a way that encourages economic development and reduces poverty. APP Partner countries seek to achieve these goals by working with industry to develop, deploy and transfer cleaner, more efficient technologies.

Australia's initial commitment of AUD100 million for the Partnership has been supporting 63 regional projects, including a project to develop Post-Combustion Capture Technology to capture CO_2 emissions from power stations.

Further to the Partnership, Australia is also providing seed funding to support the establishment of an Asia-Pacific Network for Energy Technology (APNet). This network will formalise and strengthen clean energy research and development collaboration in the Asia-Pacific region and will focus on the medium-term technology breakthroughs that are needed to cost-effectively address climate change.

Further information: http://www.ap6.gov.au/

3. National Plan for Water Security

The sustainable management of Australia's scarce water resources is currently one of the country's greatest challenges.

A new National Plan for Water Security was announced in January 2007. The AUD 10 billion plan has been designed to ensure rural water use is placed on a sustainable footing within the next decade. It will significantly improve water

management across Australia with a special focus on the Murray-Darling Basin where the bulk of Australia's agricultural water use takes place.

The plan will put irrigators on a more sustainable basis nationally by providing them with incentives to adopt more modern and efficient practices, and includes investment to modernise Australia's irrigation infrastructure both on and off-farm to save water and increase efficiency of water use. The plan will also substantially address over-allocation of water in the Murray-Darling Basin in order to improve the overall health and sustainability of the river system and its wetlands.

Further information:
http://www.pm.gov.au/docs/national_plan_water_security.pdf

4. New Whale Seismic Guidelines Released

New scientific information and years of industry experience has led to improved guidelines for the protection of whales in areas of oil and gas exploration.

The revised guidelines provide new parameters for minimising the risks to whales from sounds generated by seismic survey operators searching for new oil and gas fields. The guidelines have been developed with the involvement of the oil and gas industry, conservation groups and Australia's whale research scientists. Seismic operations will now have to shut down if whales are within 2km of a survey vessel.

Other changes to the guidelines include:

- alterations to the night-time operating provisions to manage whales in times of poor visibility;
- clearer advice on where and when significant impacts on whales may occur and the need to plan seismic operations around important habitats and times when whales may be present, and
- improved advice on adaptive measures should whales be encountered.

Further information:
http://www.environment.gov.au/epbc/publications/seismic/index.html

5. New Natural Resources Management Website

The new *Mosaic Map* website showcases nearly 500 outstanding projects which have significantly improved the management of Australia's natural resources. The site highlights a selection of projects funded over the last 10 years.

The website allows people to share their natural resource management knowledge and experiences.

Further information: www.nrm.gov.au

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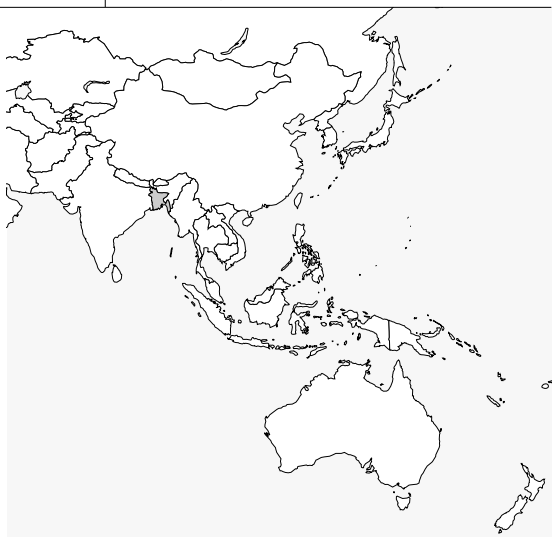
Bangladesh

Khandaker Mainuddin
Fellow
and MD. Golam Rabbani
Senior Research Officer
Bangladesh Centre for Advanced Studies (BCAS)



1. Second International Workshop on Community-based Adaptation to Climate Change Held in Dhaka

The second international workshop on community-based adaptation to climate change was held at the Radisson Water Garden Hotel in Dhaka, Bangladesh, from 24-28 February 2007. Organised jointly by the Bangladesh Centre for Advanced Studies (BCAS), International Institute for Environment and Development (IIED) and RING Alliance of Policy Research Organisations, the workshop consisted of two days of field trips to visit community-based adaptation initiatives followed by three days of discussions in Dhaka. The workshop aimed to share the developments in community based adaptation programmes, priorities and solution with a view to integrating the lessons into national and international development programmes. More than 110 policymakers and representatives from non-government organisations (NGOs), research and policy institutes, as well as development practitioners and media were in attendance.

During the first two days, site visits to four different locations in Bangladesh were organised to give the participants a closer look at local adaptation initiatives and to enable the communities to share their knowledge of adaptation and climate change. The four sites included drought prone areas in the Chapai Nawabganj District of northwest Bangladesh; flood and river erosion areas in the Gaibandha District, also in northwest Bangladesh; flood and water logging areas in the Madaripur and Gopalganj Districts in south-central Bangladesh; and regions prone to increased salinity and cyclones in the Satkhira District in the southwest coastal region of Bangladesh.

The three days of discussions in Dhaka were structured around two themes; climate change science and adaptation, and mainstreaming and partnership. The issues under climate change science and adaptation included agriculture, drought and food security; extreme events; and health and climate change. The issues under mainstreaming and partnership were tools and methods; extreme events; communication and knowledge; and mainstreaming and partnerships.

The concluding session was chaired by Atiq Rahman of BCAS and he drew attention to severe impacts of climate change in Bangladesh and elsewhere, and said that although mitigation is essential, adaptation to climate change will be necessary among the poor communities that are most vulnerable. Mohan Munasinghe, IPCC Vice-Chair, discussed, *inter alia*, recent IPCC findings, and said climate change is going to exacerbate problems related to development, poverty and food security. He noted climate change is not just a development issue but an environmental issue as well, and said it will affect sustainable development, and that how we develop will affect climate change. He underscored a lack of certainty over what level

Dr. Atiq Rahman, Executive Director, BCAS addressing the workshop
©BCAS

of mitigation should be the goal to keep concentrations below dangerous levels, and said even with mitigation, the temperature will continue to rise and adaptation will be required. Saleemul Huq of IIED said it was important to hold the workshop in Bangladesh and bring participants to the field. He noted various interpretations of community, and clarified that community-based adaptation refers to the poorest and most vulnerable communities. He said that most of these communities exist in the south, but that vulnerable communities exist in the north as well.

Chief Guest Chowdhury Sajjadul Karim, Advisor to the Agriculture, Fisheries and Livestock, and Environment and Forestry Ministries in Bangladesh, reiterated that inaction on climate change is not an option. He said we must not miss the wakeup call to take action and painted a bleak picture if Bangladesh is further submerged, leading to a doubling of population density, loss of agricultural products, and social disorder and chaos. He called for assistance from the international community and for pooling knowledge and resources. He also underscored the resilience of people and said their hard-working nature and ability to face challenges with courage will help Bangladesh adapt.

2. Country's First Sanitary Landfill Inaugurated in Dhaka City

The country's first ever environmentally friendly sanitary landfill constructed by Dhaka City Corporation (DCC) at Matuail in the capital was inaugurated yesterday. DCC Mayor Sadek Hossain Khoka formally inaugurated the landfill as the chief guest while Ambassador of Japan to Bangladesh Masayuki Inoue was present on the occasion as special guest. In his speech, the mayor said this landfill would be a milestone for the DCC in the management of solid waste, which is one of the challenging tasks of the organisation. As part of the implementation of the Clean Dhaka Master Plan the DCC has converted its 15 years old Matuail Open Dump on 20 hectares into a environment friendly sanitary landfill to reduce heath and environmental hazards of solid wastes. The scheme titled 'Matuail Landfill Improvement Project' was started in July 2005 for a two years period with technical assistance of Japan International Cooperation Agency (JICA) at a cost of Taka 4,603 million allocated through Japan Bank of International Cooperation (JBIC). Sadek Hossain said that the DCC had to spend Taka 1,140 million to provide minimum waste disposal facilities to the city dwellers by minimising its others development work in the last year. "The success of this project will encourage all DCC staff in future as it was completed three months ahead of the schedule," he said. Vice Chancellor of Bangladesh University of Engineering and Technology (BUET) Dr. M.M. Safiullah, Resident Representative of JICA Nobuko Suzuki Kayashima, DCC Chief Executive Officer Saifuddin Ahmed and Chief Conservatory Officer Commander M. R. Chowdhury also spoke at the inaugural function, among others. Ambassador Masayuki said in Bangladesh most primary waste collection providers are facing difficulties to invest for further expansion of their activities due to lack of funds and a loan scheme through city corporations or NGOs could be introduced to facilitate them. JICA resident representative Nobuko said experience of the project would surely accelerate further expansion of the site and also facilities construction of new sanitary landfill in the city.

Source: The Independent

3. Cyclone Batters Coastal Region

A severe cyclonic storm lashed coastal belt of Bangladesh at night of 15 November 2007. Vast areas of Khulna and Barisal regions were battered by the cyclone Sidr with a wind speed reaching at 220 to 240 km per hour. The storm was accompanied by heavy rain fall and tidal wave. Death toll of more than 3,000 persons has been reported from the cyclone affected areas of the country. Many are still missing and believed to have been washed away by the tidal surges. Thousands of people have become homeless due to damage or destruction of their houses. According to government sources, about 1.2 million houses were damaged, with 0.4 million completely destroyed by the cyclone. Power supply, road network and telecommunications have been completely disrupted in the worst affected areas. About 95% standing crops including the main crop paddy have been badly affected in 11 coastal districts. Thousands of timber and fruit trees have been uprooted. Livestock animals including cows and goats, poultry birds and shrimp firms were severely damaged. Acute shortage of drinking water has posed serious health problems for the people in the areas the cyclone devastated. Meanwhile, donor nations and agencies have pledged over $550 million in assistance for the cyclone hit people in south and southwestern districts.

House razed to ground by the cyclone SIDR
©BCAS

Line of trees uprooted by the cyclone SIDR
©BCAS

The property loss caused by the cyclone is estimated at Taka 65 billion by economists. The calculation includes the loss of paddy at Taka 35 billion, roads and bridges at Taka 11 billion, houses at Taka 75 billion and trees at Taka 5 billion. The increased frequency of natural calamities such as floods and cyclones in recent years is attributed by scientists to climate change happening due to anthropogenic factors including burning of fossil fuels. It may be noted that the central region of the country was devastated by a serious flood causing serious damages to life and property including crops during the month of September of the current year.

Source: The Daily Star

4. Rain-induced Mudslide Kills 80 in Chittagong

Around 80 persons including women and children were killed and more than 200 were injured on June 11 2007 in mudslide in the port city of Chittagong and surrounding areas. Heavy downpour caused the landslide prompting rain-loosened earth to subside downwards from hilltops.

Apart from the disastrous tragedy, life in the Chittagong district was disrupted on the day due to heavy downpour. Most of the areas of Chittagong, including the low-lying areas of the

port city, were inundated following heavy torrential rains.

The heaviest rainfall in quarter of a century saturated the hillsides in and around the city giving residents no chance to escape when a tide of mud and water swept down on their homes in the morning, burying whole families under mud and debris while they slept. The powerful current simply washed others away. In Chittagong the met office recorded a total of 227 mm of rainfall in the twenty-four hours.

The rainfall, coupled with severe water logging, meant that large areas of the city remained submerged with many residents taking shelter on roofs or the higher floors of buildings. Police, army, and firefighter forces and volunteers struggled all day to find survivors, but the heavy rainfall, flooding and a lack of equipment hampered their efforts. People living near hills in and around the city were evacuated due to fears of further mudslides.

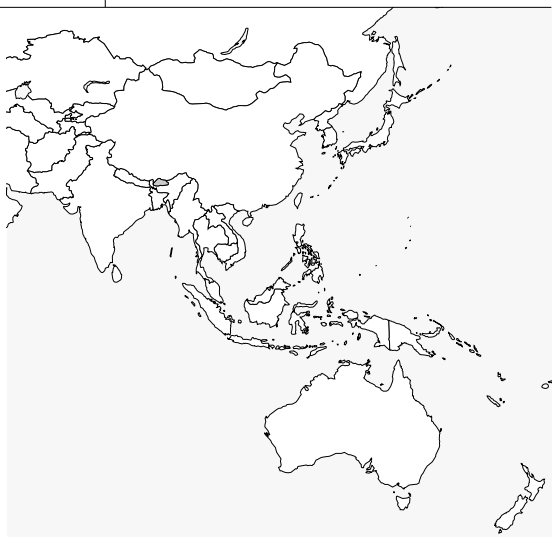
The economic disruption was extensive with the country's largest port closed and the city's industries brought to a standstill. Shop owners, businesses and householders could do little to protect their property and possessions from the torrent of muddy water. Kalurghat Radio Station was forced to suspend its broadcasts as its headquarters were submerged. The rainfall knocked out seven power substations in the city although five of the substations were able to resume operations in the afternoon.

Landslides are a regular occurrence in hilly areas of Chittagong. Experts have previously warned of environmental disasters due to the government's failure to stop the illegal clearing of hill areas for housing. The landslides were very much linked to the cutting of hills in this region.

Source: The Daily Star

Bhutan

Dorji Penjore
Researcher
The Centre for Bhutan Studies



1. Rare, Endangered Birds Spark Public Controversy

Days after the government auctioned the Punakha-Wangdue quarry, the Bhutanese public, led by Bhutan Ornithological Society (BOS), started to protest through media, petitions and web blogs. At the centre of the debate are some rare, endangered birds: White bellied heron (*Ardea insignis*).

White bellied heron ©*Kuensel*

The auction gave a one year right to contractors to collect and sell sand, gravel and stones from the 20-kilometre river beds used by these birds as feeding and breeding grounds. The White-bellied heron is one of the fifty rarest birds in the world, considered endangered because of its small and declining population. There are 24 herons, excluding newborns, that have been counted in Bhutan out of an estimated global population of 200. A month after the auction, a joint team made up of the National Environment Commission (NEC), Nature Conservation Division (NCD) and Royal Society of Protection of Nature (RSPN) recommended that the entire stretch of Puna Phochu be declared a Protected Heron Sanctuary.

Source: Kuensel, 20 December 2006, Vol. XXI, No. 99 and kuzuzangpo.com

2. Promoting Bamboo as Alternative to Wood

Concerned that Bhutan's existing forest cover (64.35%) is under increasing pressure from development, the Department of Forestry, through the Forest Development Corporation Limited (FDCL), is encouraging the use of bamboo as a substitute for wood for construction, fuel and soil erosion prevention. In 2006, FDCL identified more than 866 acres of degraded land in Samtse and Chukha districts for planting

Bamboo ©*Kuensel*

various bamboo species. This year thousands of seedlings have been distributed to government agencies and interested private individuals in these districts to start large-scale cultivation of bamboo.

As one of nature's fastest-growing plants, bamboo is a favourite in the renewable resource ratings since it helps to conserve soil and water in catchment areas. It is known to yield 20 times more timber per acre than trees. It can be harvested every seven years whereas trees take between 30 to 60 years. Its use is cost effective and environmental friendly as it helps reduce carbon dioxide and generates 30 percent more oxygen than trees.

For Bhutan that has about 50 different bamboo species, it is seen as a possible alternative to wood to reduce the pressure on forests. One notable replacement is thousands of Buddhist prayer flags Bhutanese erect at the time of sickness and deaths.

The use of bamboo for construction is not new in villages where poorer farmers build and live in bamboo houses. Concern has been raised over compromising Bhutan's unique architectural features.

Source: Kuensel, Saturday, 14 April 2007, Vol. XXII, No. 30; Kuensel, Wednesday, 27 June 2007, Vol. XXII, No. 49.

3. Bhutan Lawmakers Empowers National Environment Watchdog

On 21 June 2007, the National Assembly of Bhutan endorsed the National Environment Act of Bhutan that provides a legal framework for the National Environment Commission (NEC), the country's environment watchdog, to carry out its mandate. It is an umbrella Act that would institutionalise the commission, its roles, powers and functions, and provide a legal framework for environmental sustainability.

Though the NEC has a mandate to guide the country's environment conservation and protection, so far it had no basis on which to carry it out. The Act gives NEC extraordinary powers to review conflicting legal provisions of different agencies likely to impact environment, and come to a decision as to where the right should be vested. Without this Act, there has been conflict between different government agencies over the use and control of natural resources such as sand, stone and minerals. The NEC spokesperson said that up until now, there had been much talk about maintaining 60 percent of the country under forest cover. However there were no provisions stating how to go about it. The Act empowers it to revisit the government's plans and policies and identify a way to sustain the coverage.

Source: Kuensel, Saturday, 23 June 2007, Vol. XXII, No 48.

4. Bhutan: "Good but not Perfect" for Tigers

Bhutan is a critical and intact portion of the tiger range in the high altitude Himalayan corridor, according to the 'Tigers Forever' conference organised at Paro, Bhutan by the World Conservation Society (WCS). Bhutan's continuous forest made it possible for a genetic exchange of the tigers through Tibet in the North to Arunachal Pradesh and Assam in North-East India which connects to Northern Myanmar. This enabled the tigers to move from one end of the country to the other through connected forests like they did historically, allowing them to meet tigers of the opposite sex for procreation.

The experts, however, cautioned that despite an intact habitat, the government's conservation commitment, and a public which is against the killing of wild animals, Bhutan lacks knowledge of the big cat, its habitat and its food.

"Bhutan lacks systematic research and no one knows about the prey status, whether the deer or pig numbers are good or bad, or why human-

wildlife conflicts are happening," said Dr. Rabinnowitz of WCS. The Head of the Nature Conservation Division said that one major issue is the competition between the prey species and the livestock, and the media coverage that has been biased against tigers.

Bhutan agreed to work with the Tigers Forever programme in areas such as learning proper techniques, funding and compensation schemes.

WCS's target is to recover the tiger population and increase it by 50 percent in the next 10 years, starting last year when the Tigers Forever programme was started. The experts commended that the speculated population of 200 tigers in Bhutan is a good number considering the harsh habitat.

Source: Kuensel, Wednesday, 12 September, 2007, Vol. XXII, No. 72.

5. A Montreal Protocol Award for Bhutan

Bhutan is one of four countries to receive UNEP award for its achievement in reducing imports of ozone-depleting substances (ODS) in compliance with the Montreal Protocol as 24 countries met in Thimphu to mark the 20th Anniversary of signing of Montreal Protocol on substances that deplete the ozone layer. Bhutan has exceeded its target to reduce its annual import of ODS from 170 to 63 kilograms.

For Bhutan, the Montreal Protocol and Intergenerational Equity is in consonance with its Draft Constitution which states that every Bhutanese is a trustee of the country's natural resources and environment for the benefit of the present and the future generations. The Article 5 provides for intergenerational equity, ensuring that the country's natural resources are used in a way that benefits present and future generations.

Bhutan could exceed the target by imposing a complete ban on imports of ODS ozone depleting substances based equipment like refrigerators, deep-freezers, fire extinguishers and air coolers. Under the Montreal Protocol, all member countries are to eliminate the use of ODS by 2010.

However, monitoring and visiting every household to see if they were complying with the Montreal Protocol of not using any ODS is one of the most difficult tasks. Some households, for instance, were still using the old refrigerators that used chlorofluorocarbon (CFC) as coolants and would continue using them until the refrigerator broke down.

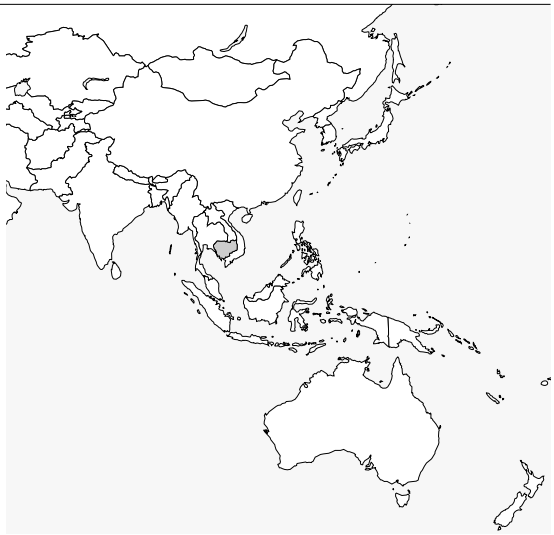
Depletion of the ozone layer has grave implications in Bhutan because of its higher altitude, with about 70 percent of the population who are farmers exposed to the direct rays of the sun.

Source: Kuensel, Wednesday 11 April, 2007, Vol. XXII, No. 27

NEC deputy minister, receives the award
©Kuensel

Cambodia

Khieu Muth
Secretary of State
Ministry of Environment



1. A Summary of Environmental Policy in Cambodia

In the 20th and particularly the 21st century, the world has begun to pay attention to the protection of the environment and natural resources. In particular, climate change is widely considered to be one of the gravest threats to the sustainability of the planet's environment, the well-being of its people and strength of its economies. Climate change can also cause drought and severe flooding. This phenomenon is caused by industrialised and advanced technology countries. Some countries are also suffering from environmental pollution such as water, air and soil pollution, public health issues and the gradual loss of biodiversity.

Over the past few years, the Royal Government of Cambodia has established environmental principles to protect the environment. To give some examples, the Cambodian Constitution of 1993 contained an article (Article 59) stating *"The State shall protect the environment and balance of abundant natural resources and establish a precise plan of management of land, water, air, wind, geology, ecological system, mines, energy, petrol and gas, rocks and sand, gems, forests and forestry products, wildlife, fish and aquatic resources."* Also in 1993, a Royal Decree on Establishment of Protected Areas was signed determining 18% of the country's area as protected. Since then, protected land has increased to 25% of the total nation's land area. 1993 was also the year that the Ministry of the Environment was established, event though at the time, the word "environment" was little known among the Cambodian people. Year by year, this word has been mainstreamed, but public participation in the protection of the environment and management of natural resources is still limited. The National Assembly adopted the law on Environmental Protection and natural Resource Management in 1996 and Parliament is currently examining laws on protected area and law on bio-safety.

The Kingdom of Cambodia became a member of ASEAN in 1999. Cambodia regularly participates in high level official meetings and ministerial meetings on environment. The parliament has enacted an agreement on Haze caused by forest fires in the framework of ASEAN's member country. Cambodia is also a member of international conventions and protocols related to the environment including the UNFCCC, the Kyoto Protocol and the Ramsar Convention.

In conclusion, the Royal Government of Cambodia led by Prime Minister Samdech Hun Sen has policies in place that protection and gradual build up of Cambodia society with peaceful and sustainable development in consistent with triangle strategy in order for growth employment, equity and effectiveness in Cambodia. Furthermore, the government is

strengthening democratic principles, ensuring human rights and carrying out thorough law enforcement to achieve the goal of sustainable development. Meanwhile, the government is making significant efforts to promote human resource development, enhance knowledge and know-how on site and improve people's livelihoods so they can live with integrity, dignity, responsibility and unity towards a great and prosperous nation.

2. High-level Event on Climate Change " The Challenge of Adaptation : from Vulnerability to Resilience" 24 September 2007

On 24 September, Dr. Mok Mareth, Senior Minister, Ministry of the Environment, represented the Kingdom of Cambodia at the significant meeting on the theme of "The Challenge of Adaptation-from Vulnerability to Resilience", held at the United Nations in New York.

He addressed that the fact that Climate Change is widely deemed as the one of the most severe threats to the environment, human well-being and national economies. Cambodia is a least developed country (LDC) and is therefore vulnerable to the impacts of climate change; particularly floods and droughts, which have caused serious impacts on the economy, environment and people's livelihoods.

As Party to the UNFCC and its Kyoto Protocol, Cambodia has made the utmost efforts to implement the Convention and Protocol; practically, it has carried out promotion of CDM projects, preparation of National Communications to the UNFCCC, and preparation of a National Adaptation Programme of Action to Climate Change (NAPA). Hopefully, NAPA will help the country address urgent needs to adapt to the impacts of climate change as well as to achieve Cambodia's MDGs and other development objectives under climate change conditions.

Programmes to support and enhance community-based initiatives to address climate change should be also of high priority. Therefore, LDCs need to develop and implement programmes for climate forecast and dissemination systems. There is also a need for comprehensive adaptation studies and for long-term programmes of research and education for addressing climate change. Concerning this, Dr. Mareth emphasised that priority adaptation measures should primarily focus on the improvement and development of adaptation infrastructures using project-based capacity building approach for stakeholders as opposed to purely general capacity building.

Besides the above mentioned challenges, he raised the next challenge of mobilising resources for the implementation of NAPA which is an important matter due to the limited financial and technical capacities of most LDCs. Existing funds theoretically available for LDCs, such as the LDC Fund, the Special Climate Change and the Adaptation Fund, are very small compared to the required costs of adaptation for developing countries. Thus, there is a need for international consensus on the scope of adaptation and the means to enhance the availability of, and access to adaptation funds, he added.

Compared with mitigation, adaptation has traditionally received less attention. As a result, current climate change agreements provide neither binding commitments for adaptation funding, nor mechanisms for private sector participation, he said. A legally binding instrument such as a new protocol under the

UNFCCC should therefore be explored to commit meaningful funding to adaptation based on some key concepts such vulnerability, equity, sustainability, and polluter-must-pay. On the other hand, private sector involvement in implementing adaptation activities needs to be encouraged through various economic incentives.

3. Seminar on ISO 14001

On 21 November 2007, the Ministry of the Environment, Cambodia, in cooperation with Japan Quality Assurance Organization held a seminar on ISO 14001. The purpose of the seminar was to promote an environmental management plan for public and private projects. There were 69 participants from the public and private sectors attending the seminar.

There are two institutions in Cambodia that have implemented ISO 14001:

1. Cambodia Brewery Limited (CBL) which received technical support from Heineken in March 2003.
2. Apsara Authority which received technical support from Japan Quality Assurance Organization in 2006.

Each institution implementing ISO 14001 has an established environmental policy.

- Environmental Policy of Cambodia Brewery Limited.

CBL controls, reduces and if possible prevents pollution of the environment around its brewery in Kien Svay, Kandal Province, Kingdom of Cambodia. This is achieved by the implementation of an Environmental Management System based upon the regulations of ISO 14001.

- Environmental Policy of Apsara Authority

1. Promotes environmental conservation measures to save the regional environment and prevent pollution while adjusting to the increase of tourists and the development of the sightseeing industry.
2. Promotes environmental conservation activities with the participation of all stakeholders to ensure a beautiful region where there is little rubbish, through a reduction of the amount of waste and the establishment of a system to deal with it , and to strive to maintain a wholesome aquatic environment, including rivers, lakes, barays and moats.
3. Promotes Environmental Education to local people.
4. Complies with environmental laws and regulations.
5. Promotes constantly improvement.
6. Keeps staff well-informed about this policy and announces it to the public.

China

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1. SEPA Controls Pollution Emissions with Regional Limited Approval

At a press conference on 10 January, Vice Minister Pan Yue of the State Environmental Protection Administration (SEPA) applied a policy of Regional Limited Approval to 82 steel, electric power, metallurgy and other projects with investments of over CNY112 billion asserted to be in contravention of Environmental Impact Assessments and the "Three Concurrents" System. This is a move to contain the expansion of polluting industries with high energy consumption. Affected were major electric power firms (Datang Power, Huaneng Power, Huadian Power and Guodian) that had received repeated instructions, and administrative regions (Tangshan City in Hebei province, Luliang City in Shanxi province, Liupanshui City in Guizhou province and Laiwu City in Guangdong province) with pronounced levels of energy consumption and pollution. The execution of all the planned projects was made subject to suspension or limitation. He also recommended prosecutors look into the administrative responsibility of their managers. This comprehensively blocks off the circumvention formerly available to the companies of initiating their projects first and performing Environmental Impact Assessments or the Three Concurrents only later. The restrictions were applied to regions and business sectors that exhibited (1) a low rate of implementation of Environmental Impact Assessments or (2) grave violations of the Three Concurrents. During the period of the 11th Five-Year Plan policies of Regional Limited Approval and Business-sector Limited Approval will be applied to regions and business sectors that have failed to achieve targets for reductions in their total volumes of ion dioxides and water contaminants, as well as to rivers exceeding regulatory targets for total volumes of pollutants and not satisfying environment-function zone requirements and administrative regions at high environmental risk that have experienced numerous instances of serious environmental pollution.

SEPA later, on 3 July, demanded limited-time measures for six cities and five industrial complexes exhibiting serious water pollution and marked environmental offenses in the four major river basins of the Yangtze, Yellow, Huai

Plant wastewater discharge *(photo by author)*

He and Haihe rivers. Unless the measures are taken, SEPA will effect the severe administrative action of denying them approval for new projects to go ahead. The leading Chinese environmental authority is setting in motion mandatory administrative action against regions with pronounced levels of environmental pollution.

Source: SEPA

2. National Standards Committee and Health Ministry Officially Implement GB5749-2006 Drinking Water Quality Standard as of 1 July

For 20 years the Chinese Ministry of Health followed the GB5749-85 Drinking Water Quality Standard issued on 16 August 1985. On 29 December 2006 the National Standards Committee and Ministry of Health jointly revised and issued the GB5749-2006 Drinking Water Quality Standard. Officially implemented as of 1 July, the new standard applies yet higher standards to urban water quality, and especially to the safety of drinking water. The greatest change is in the number of indices, which have increased to 106 from 35 in 1985. Of these, 38 are regular observations, 4 are regular decontaminant observations and 64 are non-regular observations. There are 71 new and 8 revised indices. Their distinguishing feature is that they apply to drinking water in urban and regional concentrated and decentralised water supplies and mandate that it not contain pathogenic microorganisms. They also require decontamination and that chemical substances and radioactive materials not affect the human body. The index of organic compounds covers multiple agricultural chemicals, endocrine disruptors and persistent compounds (persistent organic pollutants) and puts emphasis on the relationship between drinking water and health. It also requires measurement of formaldehyde, benzene, toluene and xylole contents.

The regular indices require observations at specified locations without exception. Provincial governments are to determine where and when the non-regular indices are to apply, in accordance with conditions obtaining locally. In 2008 the National Standards Committee, Health Ministry and Construction Ministry are to report on the status of implementation of the non-regular indices in individual provinces, and all indices are to be implemented by 1 July 2012 at the latest.

3. Revised Energy Conservation Law Promulgated

The PRC Energy Conservation Law was officially promulgated on 28 October 2007 and is to take effect on 1 April 2008. While China has experienced rapid economic development, it now faces an issue of constraints on energy resources. Although the current Five-Year Plan (2006-2010) sets targets for energy efficiency, these went unmet in its first year of 2006 and genuine energy conservation has become an urgent task.

The revised law gives energy conservation the status of a basic national policy. With the newly created section, the law also defines energy conservation standards and mandates the upgrading of control systems in government agencies and sectors with high levels of energy consumption, such as construction and transportation. It also applies stiffer penalties, including maximum fines of CNY500,000 (c. JPY7. 6 million) levied on construction designs and contractors that fail to satisfy standards. The aim of the revision is to give more teeth to enforcement of the Energy Conservation Law that had been in effect since January 1998 but not functioning effectively, and thus to put energy conservation into practice in reliable fashion.

The highlights of the revised law are as follows:

1) Energy conservation in transportation added. The state is to promote the development and use of clean, substitute fuel and give incentives to the development, production and use of new-energy vehicles, including alcohol-fueled vehicles, hybrid-power vehicles, electrical vehicles and gas-driven vehicles.
2) Relevant units of the State Council are to institute numerical limits on fuel consumption for transport vehicles, rolling stock and shipping vessels and for major facilities consuming energy. They will also stipulate the application of those standards to govern the market entry of automotive vehicles, rolling stock and shipping vessels and their depreciation and upgrading.
3) The state is to use taxation and other policy levers to encourage the import of advanced energy-saving technologies and equipment. The state is also to regulate so as to curb the export of products whose production processes entail high energy consumption or significant pollution. This will be achieved by trimming export duty reimbursements, applying export duty surcharges and adding items to the schedule of component products prohibited in improvement trade.
4) Whereas the current law provides that "the state shall implement a system of culling product (equipment) not in compliance with energy efficiency standards," the revised law more strictly states that "the state shall implement a system of culling product (equipment) markedly lagging in efforts for energy conservation or with markedly high energy consumption."

Source: China-Japan Environmental Research and Consulting Co., Ltd.

4. Launch of the First National Pollution Source Survey

The volume of energy consumed has risen and the volume of pollutants emitted has also greatly increased with the rapid and continuous development of the Chinese economy. Existing statistical data on the environment is therefore unable to meet demand for environmental monitoring. The State Council has thus decided to conduct a national survey of pollution with a view to bolstering environmental supervision and management, upgrading the formulation of strategy and achieve the targets of the Five-Year Plan for reducing pollutant emissions. The national survey is expected to provide a picture of the state of pollution throughout the country and lead to establishment of a scientific environmental policy and the implementation of unambiguous anti-pollution measures. This is of great significance to transformation driven by economic development, energy conservation and the construction of an environment-friendly society. The survey was scheduled to complete its preparatory stages by the end of 2007 and move to implementation in 2008. The survey is to cover, on a national scale, industrial sources of pollution, agricultural sources of pollution, residential and lifestyle sources of pollution, the number of central waste processing facilities, the distribution of polluting industries and regions, the types and emission levels of the principal pollutants, where they are discharged, the operational status of waste processing facilities, and the extent to which anti-pollution measures are implemented.

Source: Xinhua News Agency

India

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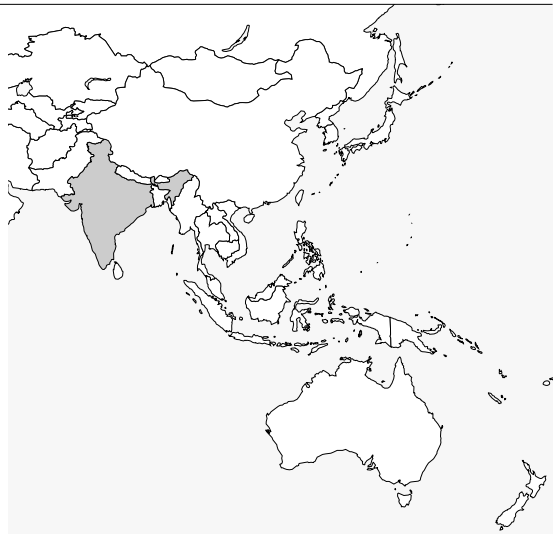

1. PM's Council on Climate Change Constituted

The Prime Minister Dr. Manmohan Singh has set up a high level advisory group on Climate Change issues. The integration of Climate Change in national development is guided by the Prime Minister's Council on Climate Change. The Prime Minister's Council on Climate Change includes the following:

(a) Government Representatives — Minister of External Affairs; Finance Minister; Minister of Environment and Forest; Minister of Agriculture; Minister of Water Resources; Minister of Science & Technology; Deputy Chairman, Planning Commission; Dr. R. Chidambaram, Principal Scientific Advisor to PM; Shri V. Krishnamurthy, Chair, NMCC; Dr. C. Rangarajan, Chair, EAC; Shri Ajay Mathur, Chair, Bureau of Energy Efficiency; Foreign Secretary; Secretary, Environment & Forests and Principal Secretary to PM

(b) Non-Government Members: Dr. R.K. Pachauri, Chair, TERI; Dr. Prodipto Ghosh; Dr. Nitin Desai, Dr. Sunita Narain; Shri Chandrashekhar Dasgupta; Shri Ratan Tata, Chair, Investment Commission; Shri Raj Chengappa, Executive Editor, India Today; Dr. R. Ramachandran, Science Editor, The Hindu.

The Council provides overall strategic guidance on mainstreaming climate change in development, identifies key intervention priorities, monitors the implementation of these interventions and coordinates national action plans for assessment, adaptation and mitigation of climate change. It advises government on pro-active measures that can be taken by India to deal with the challenge of climate change and facilitates inter-ministerial coordination and guide policy in relevant areas.

Source: 1. Press Release 5 June 2007, New Delhi
2. India: Addressing Energy Security and Climate Change; Ministry of Environment & Forests, Ministry of Power, Bureau of Energy Efficiencies, October 2007

2. CDM and Sustainable Development in India

The purpose of the CDM as defined in Article 12 of the Kyoto protocol to the Climate Change Convention is to:

(a) assist developing countries in achieving sustainable development

(b) contribute to the ultimate objective of the climate change convention

(c) assist developed countries in achieving compliance with their Quantified Emission Limitation and Reduction Commitments (QELRCs).

The protocol emission targets cover the six GHGs : carbondioxide (1*), methane (21*), Nitrous Oxide (310*), Hydrofluro carbons (140-1170*), Perfluro carbons (6500-9200*), Sulphur hexafluoride (23900*).

It is the perogative of the host country (e.g. India) to ensure that a CDM project activity addresses the sustainable development (SD) needs of the country. The World Commission on Environment and Development popularly known as Brundtland Commission, defined SD in 1987 as a development process that "meets the needs of the present without compromising the ability of the future to meet their own needs." The World Resource Institute (WRI) has outlined the four pillars of SD as: social wellbeing, economic wellbeing, environmental wellbeing and technological wellbeing. India's 10th Five Year Plan (2002-2007) provides a development process that encompasses broader societal issues than merely economic growth. India aims to use CDM as a process/mechanism to catalyse sustainable development through rural development and energy security.

Over 700 CDM projects have been approved by the CDM National Designated Authority, and about 300 of these have been registered by the CDM Executive Board. The registered projects have already resulted in over 27 million tonnes of certified CO_2 emissions reductions, and directed investment in renewable energy and energy projects by reducing the perceived risks and uncertainties of these new technologies, thereby accelerating their adoption.

Source: 1. Clean Development Mechanism — A Reference Tool, Winrock International India, August 2007

2. India: Addressing Energy Security and Climate Change; MoEF, October 2007

3. National Biodiversity Action Plan (Draft) —Ministry of Environment and Forest, Government of India, August 2007

India is known for its rich heritage of biological diversity, having already documented over 89,000 species of animals and 46,000 species of plants in its 10 bio-geographical regions. Nearly 6,500 native plants are still used prominently in indigenous healthcare systems. Thousand of locally-adapted crop varieties, grown traditionally since ancient times, and over 130 native breeds of farm livestock, continue to thrive in its diversified farming systems. Climate change due to increased greenhouse gases in the atmosphere leading to global warming, poses a significant threat to biodiversity, ecosystems, and the goods and services they provide. Scientific studies have brought out that strong interlinkages exist between desertification and biodiversity loss. This calls for undertaking focused research on the impact of desertification, as also synergising efforts to combat desertification and promote biodiversity conservation.

The vast majority of people in India depend directly on agriculture and forestry for food security and livelihoods. These sectors are considered to be more vulnerable to the projected climate change, particularly affecting water availability and temperature regimes. Preliminary assessments have indicated a decline in agricultural productivity and shifts in cropping patterns, forest boundaries, as well as changes in species assemblage of forest types, changes in net primary productivity, and potential loss or distribution pattern of biodiversity.

The Government of India has set up an Expert Committee on the impacts of climate change on 7 May 2007 under the chairmanship of Dr. R. Chidambaram, Principal Scientific Adviser to Government of India, to study the

*figures indicate global warming potential (GWP)

impacts of anthropogenic climate change on India and to identify the measures that may have to be taken in the future in relation to addressing vulnerability to anthropogenic climate change impacts.

Developing a national strategy and action plans for biodiversity conservation are severely constrained because of inadequate databases of biodiversity and their geographical distribution. The report strongly recommends an urgent need for environmental education and awareness to highlight the importance of conservation and sustainable use of biodiversity especially focusing on new and emerging issues such as biosafety, climate change and biofuels. The report also brings out the need for coordination among organisations to effectively integrate findings of research projects into policy making. Participation of private sector in R&D also needs to be further encouraged. Institutional and human capacity needs to be constantly strengthened and updated to meet the new and emerging challenges relating to biodiversity, e.g. in the fields of biosafety, climate change, and invasive alien species. The report further discusses India's contribution in various international conventions relating to conservation of biodiversity.

Source : National biodiversity Action Plan (Draft), Ministry of Environment & Forests, Government of India, August 2007.

4. Enabling Access to Clean Energy

Poverty reduction and economic growth are the prime objectives of national policy. Energy is the sine qua non of development. India, with over a billion people, today only produces 660 billion KWh of electricity and over 600 million Indians have no access to electricity, and limited access to other clean, modern fuels such as LPG and kerosene. This constrained energy access is reflected, in the low Human Development Index. Enhancing energy supply and access is

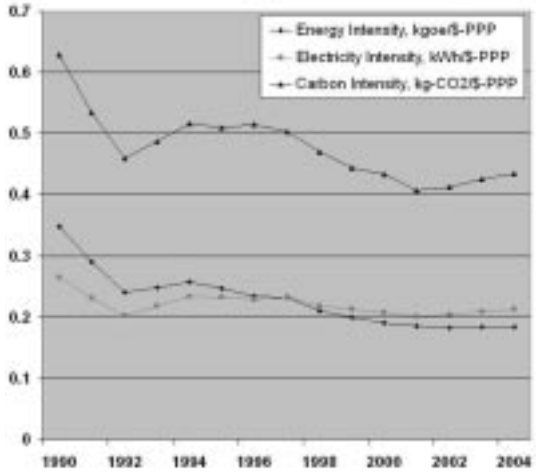

Fig 1 : Emissions and Energy Intensity Trends in India

therefore a key component of the national development strategy.

Over the past decade, gains in both poverty reduction and economic growth have been significant and supported by energy growth which has been significantly lower than the economic growth. This reduced energy intensity of the economy, in the period since 2004, has been marked by an economic growth rate of over 9% per annum, which has been achieved with an energy growth of less than 4% per annum.

These policies have been driven by the imperatives of sustainable development, and have, as a co-benefit, led to a decline in the intensity of energy use and carbon dioxide emissions as well. Figure 1 illustrates the declining trend in energy use and CO_2 emission in India.

This reduced energy intensity, at the relatively low level of India's per-capita GDP, has been made possible by a range of factors, including India's historically sustainable patterns of consumption, enhanced competitiveness, proactive policies to promote energy efficiency, and more recently, the use of the Clean Development Mechanism to accelerate the adoption of clean energy technologies.

Source: India: Addressing Energy Security and Climate Change; Ministry of Environment &

Forests, Ministry of Power, Government of India, October 2007

5. Policies to Promote Energy Efficiency and Renewable Energy

(i) Electricity from Renewables: The Electricity Act, 2003, requires State Electricity Regulatory Commissions to specify a percentage of electricity that the electricity distribution companies must procure from renewable sources. Several Commissions have already operationalised this mandate, and also notified preferential prices for electricity from renewables. This has contributed to an acceleration in renewable-electricity capacity addition, and over the past three years, about 2,000 MW of renewable-electricity capacity has been added in India every year, bringing the total installed renewable capacity to over 11,000 MW. Of this, a little over 7,000 MW is based on wind power; India now has the fourth largest installed wind capacity in the world. The National Hydro Energy Policy has resulted in accelerated addition of hydropower in India, which is now over 35,000 MW.

(ii) Enhancing Efficiency of Power Plants: Coal is the mainstay of India's energy economy, and coal-based power plants account for about two-thirds of the total electric generation installed capacity of about 135,000 MW. In addition, the Electricity Regulatory Commissions are also linking tariffs to efficiency enhancement, thus providing an incentive for renovation and modernisation. New plants are being encouraged to adopt more efficient and clean coal technologies, and four new plants under construction have adopted the more-efficient super-critical technology for power generation.

(iii) Introduction of Labelling Programme for Appliances: An energy labelling programme for appliances was launched in 2006, and comparative star-based labeling has been introduced for fluorescent tubelights, air conditioners and distribution transformers.

The labels provide information about the energy consumption of an appliance, and thus enable consumers to make informed decisions. Almost all fluorescent tubelights sold in India, and about two-thirds of the refrigerators and air conditioners, are now covered by the labelling programme.

(iv) Energy Conservation Building Code: An Energy Conservation Building Code (ECBC) was launched in May, 2007, which addresses the design of new, large commercial buildings to optimise the building's energy demand. Commercial buildings are one of the fastest growing sectors of the India economy, reflecting the increasing share of the services sector in the economy. Nearly one hundred buildings are already following the Code, and compliance with it has also been incorporated into the Environmental Impact Assessment requirements for large buildings.

(v) Energy Audits of Large Industrial Consumers: In March 2007, the conduct of energy audits was made mandatory in large energy-consuming units in nine industrial sectors. These units, notified as "designated consumers" are also required to employ "certified energy managers", and report energy consumption and energy conservation data annually.

Source: India: Addressing Energy Security and Climate Change; Ministry of Environment & Forests, Ministry of Power, Government of India, October 2007

6. Adaptation to Climate Impacts

The adverse impacts of current climate already threaten the livelihoods of many Indians, especially the poorest. Current government expenditure on adaptation to climate variability, already exceeds 2% of the GDP, with agriculture, water resources, health and sanitation, forests, coastal-zone infrastructure and extreme weather events, being specific areas of concern.

The broad areas where programmes have been developed include:

(a) Crop Improvement

Programmes address technical issues, such as development of arid-land crops and pest management, as well as capacity building of extension workers and NGOs to support better and vulnerability-reducing practices.

(b) Drought Proofing

Programmes seek to minimise the adverse effects of drought on production of crops and livestock, and on productivity of land, water and human resources, so as to ultimately lead to drought-proofing of the affected areas. They also aim to promote overall economic development and improve the socio-economic conditions of the resource poor and disadvantaged sections inhabiting the programme areas.

(c) Health

The prime objective of these programmes is the surveillance and control of vector borne diseases such as Malaria, Kala-azar, Japanese Encephalitis, Filaria and Dengue. Programmes also provide for emergency medical relief in the case of natural calamities, and train and develop human resources for these tasks.

(d) Risk Financing

Two risk-financing programmes support adaptation to climate impacts. The Crop Insurance scheme supports the insurance of farmers against climate risks, and the Credit Support Mechanism facilitates the extension of credit to farmers, especially in instances such as crop failure due to climate variability.

(e) Disaster Management

The National Disaster Management programme provides grants-in-aid to victims of disasters, and manages disaster relief operations. It also supports proactive disaster prevention programmes, including dissemination of information and training of disaster-management staff.

(f) Livelihood Preservation

Programmes support income diversification, as well as minimum employment guarantees in order to enable sustainability of livelihoods, including in response to loss of livelihoods due to the adverse impacts of climate.

Source: India: Addressing Energy Security and Climate Change; Ministry of Environment & Forests, Ministry of Power, Government of India, October 2007

7. Mainstreaming Climate Change and Sustainable Development

Government initiatives for the diffusion of renewable energy and energy - efficient technologies, joint forest management, water resources management, agricultural extension services, web-enabled services for farmers and rural areas, and environmental education in schools and colleges represent a broad spectrum of efforts to integrate climate change concerns in sustainable development. This integration is institutionalised through specialised institutions, such as the Ministry of New & Renewable Energy, the Bureau of Energy Efficiency, and the Technology Information, Forecasting & Assessment Council, with specific mandates to promote climate friendly technologies.

The National Environment Policy, 2006, provides the basis for the integration of environmental considerations in the policies of various sectors. The Policy Statement for Abatement of Pollution, 1992, stresses the prevention of pollution at the source based on the "polluter pays" principle. The Forest Policy, 1988, highlights environmental protection

through preservation and restoration of the ecological balance. The policy seeks to substantially increase the forest cover in the country through afforestation programmes.

The statutory framework for the environment and energy efficiency includes the Indian Forests Act, 1927, the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Forest (Conservation) Act, 1980, and the Environment (Protection) Act 1986. Other enactments include the Public Liability Insurance Act, 1991, the National Environment Tribunal Act, 1995, the National Environment Appelate Authority Act, 1997, the Energy conservation Act, 2001 and the Electricity Act, 2003. The courts have also elaborated on the concepts relating to sustainable development, and the 'polluter pays' and 'precautionary' principles. In India, matters of public interest, particularly pertaining to the environment, are articulated effectively through a vigilant media, an active NGO community, and through the judicial process which has recognised the citizen's right to a clean environment as a component of the right to life and liberty.

Addressing climate change mitigation and adaptation involves many stakeholders, cuts across short and long timeframes, and requires that all development projects be assessed for their sensitivity to climate concerns. This integration of climate concerns in the development process has been mainstreamed in India through high-level multi-stakeholder committees.

Source : 1. Prime Minister's Council on Climate Change

2. Addressing Energy Security & Climate Change; Ministry of Environment & Forests, Ministry of Power, Bureau of Energy Efficiency, Government of India, October 2007

Indonesia

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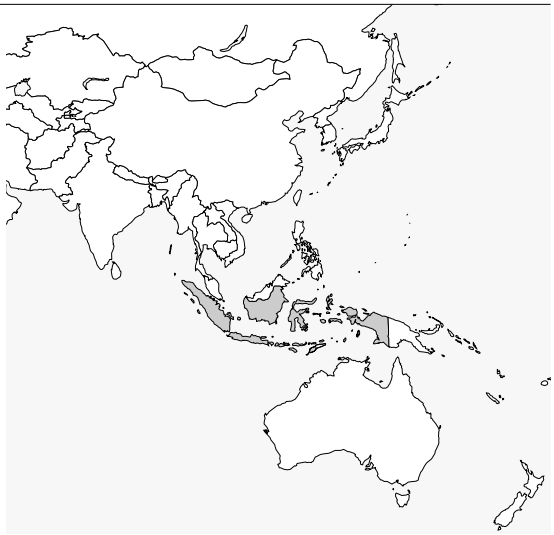


1. From the Climate Change Conference: Indonesia is Ready for REDD

The 13th Conference of Parties (COP13) to the United Nations Framework Convention on Climate Change (UNFCC) took place on 3-14 December, 2007 in Denpasar, Bali. The Conference was attended by more than 10,000 people from 200 countries worldwide. The parties gathered on the Indonesian resort island to try to hammer out a replacement for the Kyoto Protocol, a global pact aimed at fighting global warming.

At this COP, issues regarding forestry-related climate change, mainly on Reducing Emissions from Deforestation and Degradation (REDD) was discussed intensively. Indonesia has been following developments on REDD, a scheme that has been discussed since 11th Session of the UNFCCC in Montreal in 2005. The Ministry of Forestry, M.S. Kaban, announced the readiness of Indonesia to take part in REDD scheme on 6 December 2007. This country, with its 120.3 million hectares of forests, will set aside 37.3 million ha of its forests for the REDD project, and voluntarily curb the degradation of its forests in return for emissions credits. Through this scheme, Indonesia hopes that a substantial funding of USD 3.75 billion every year will be collected from developed nations.

For years, Indonesia has made money by chopping down its forests. Now it wants to earn billions by preserving what is left. The implementation of REDD in forestry can be applied to areas of industrial forest for pulp and paper, conservation areas and peatlands. The Government is also committed in preventing conversion of industrial forest usage.

Conservation and research experts have said deforestation rates have dropped significantly after the Indonesian government's recent moves to implement tough measures on illegal logging and a new law prohibiting the use of fire to clear land. But Indonesia says it must be given incentives.

Globally, eighty percent of carbon emissions come from fossil fuels and 20% from deforestation. But in Indonesia, the figure is opposite, which relates to the importance of forests to carbon emissions. Deforestation is estimated to contribute 20% of total greenhouse gas emissions, more than all the emissions of the world's cars, trucks, trains and airplanes combined.

According to the report by the World Bank and the British Government, deforestation, which releases a significant amount of carbon dioxide, has put Indonesia as the world's third largest emitter of greenhouse gases after the United States and China. Further, annual emissions in Indonesia from energy, agriculture and waste altogether are equivalent to around 451 million tons of carbon dioxide (MtCO2e). Land-use change and forestry alone is estimated to release about 2,563 MtCO2e.

©BirdLife Indonesia

2. Indonesia's Effort to Combat Illegal Logging

Indonesia, the world's largest archipelago, ranks behind only Brazil and the Congo basin in the size of its tropical forest. In 2001, about 83% of the 59 million cubic meters of wood consumed in Indonesia came from illegal sources, according to CIFOR, the Indonesia-based Center for International Forestry Research.

The Indonesian Government estimated that illegal logging costs the country about three to four billion dollars and 2.8 million ha of forest cover per year during the past decade. Illegal logging is rampant because of weak inspection and monitoring systems and because few offenders are prosecuted. Of the 186 suspects arrested for illegal logging in the past two years, only 13 have been sentenced.

Combating illegal logging has always been the top priority programme of the Ministry of Forestry since 2001. In addition, the government has proposed stricter laws that would force illegal loggers to forfeit assets if caught and convicted. Indonesia's groundbreaking 2002 anti-money laundering law would be more effective in catching the illegal loggers than the conventional criminal code.

According to the Minister of Forestry, M.S. Kaban, Indonesia may take at least seven years to halt illegal logging. The Minister is seeking additional powers to catch and prosecute illegal loggers and may grant more rights to indigenous tribes. In addition, the Government also plans to push companies to replant trees by enforcing the terms of existing plantations licenses.

Although forest destruction and illicit exploitation are a legacy of the centralised New Order government, the fact is these problems seem to have grown worse since Soeharto stepped down in 1998 and a more decentralised government was introduced in 2001. Under decentralisation, lower levels of government, notably district and regional governments, have greater rights and responsibilities for forest management.

Globally, the loss of tax and royalties revenues due to forest-related corruption totals between USD 10 billion and USD 15 billion a year. Indonesia loses USD 3 billion to illegal logging annually and is struggling to conserve its forests amid rising demand for timber to make paper and land to plant oil palm and rubber trees, according to the World Bank. China, which buys most of Indonesia's timber exports, and India have been able to reverse deforestation, according to a study funded by the Academy of Finland and the National Science Foundation of China.

Some argue that a return to a more centralised forest management system could be an option, although there are weaknesses and strengths in both centralised and decentralised forest management structures. So far only a relatively small group of people share and significantly benefit from Indonesia's rich forest resources. If the nation's forests are to truly

benefit the country's 220 million people, it will require current and future leaders to commit themselves to sustained improvement in systems of governance and administration.

3. Pioneering Ecosystem Restoration in Production Forest of Indonesia: Harapan Rainforest

Indonesia is facing the loss of its lowland tropical rainforest, mostly managed as production forests. The area of degraded production forests in Indonesia is increasing, as degraded forests are being converted to industrial timber or oil palm plantations, contributing to the overall deforestation rate of 2.8 million ha per year.

Continuing forest destruction and degradation demonstrates that a better way in managing natural forest is needed. The current trend of depletion of natural forest needs to be reversed. Indonesia should seek a new way to maintain its natural forest and improving its quality so that it has many benefits and products can be delivered in a sustainable manner.

Ecosystem Restoration is aimed at restoring the ecological processes so that natural forest can be improved, while gradually improving its economic potential. Therefore, the objectives of ecosystem restoration are wider than other forest rehabilitation approaches such as re-forestation. It is not only to increase forest or land productivity, but also to improve biodiversity and other functions of natural forests.

Addressing that deforestation threat in Sumatra, Burung Indonesia, the Royal Society for the Protection of Birds (RSPB) and the BirdLife International Secretariat joined together in an action to manage and restore lowland forest of Sumatra encompassing area of 101,355 ha. Through the Ecosystem Restoration, it will be shown that lowland rainforest can be maintained and does not have to end to be a palm oil plantation.

A production forest managing license is created by the government to ensure that a forest will give economical benefits. This programme will be a model of sustainable forest management while giving economical benefit for the government and the local community.

While a production forest concession holder is supposed to perform timber extraction, the Ecosystem Restoration license gives the holder the right not to log the forest during the concession period of up to 100 years. This is possible with the issuance of the regulation that supports production forest function for ecosystem restoration.

Burung Indonesia, with support from RSPB and BirdLife International, has worked with the Indonesian Ministry of Forestry to seek a new forest management model that combines restoration and sustainable use. For the first time, production forest can now be managed for ecosystem restoration and conservation. In June 2004, the Indonesian Government issued the Minister of Forestry decree No. SK 159/Menhut-II/2004 on 'Ecosystem Restoration in Production Forests'. This regulation introduces a new type of license for the management of designated production forests — the license for ecosystem restoration.

In January 2007 the Ministerial Decree was converted into an amendment to the Government Regulation No. 6/2007 approved by Parliament and signed by the President of the Republic formalising the new category of "ecosystem restoration concessions", simplifying the procedures for allocation and extending the duration of the concession to 100 years (as opposed to the former 55 years).

Through ecosystem restoration, a new option for conservation in Indonesia has been created. Forest management that combines restoration of the forest ecosystem and sustainable forest resource utilisation is now possible as a result of the ecosystem restoration policy of the Indonesian Government.

According to Ministry of Forestry Regulation No SK. 159/Menhut-II/2004, Ecosystem

©BirdLife Indonesia

Restoration is an effort to revive biotic elements (flora and fauna) and abiotic elements (soil, climate and topography) at the production forest to obtain biotic equilibrium. Ecosystem Restoration at production forest area is conducted through planting, regeneration and/or protecting the ecosystem.

The area assigned by the government to be the first Ecosystem Restoration in Indonesia is Meranti River-Kapas River Forest Block in Jambi province and Southern Sumatera province encompass area of 101,355 ha. Administratively, about 49,498 ha of the forest situated in Jambi Province and the other 51,857 ha belong to the Southern Sumatera Province.

4. A Supermarket for Natural Disasters

The Head of Indonesian National Coordinating Agency for Surveys and Mapping (BAKOSURTANAL) Rudolf W. Mattindas, gave a nickname to this country "a supermarket for natural disasters". Although it was not seriously meant, this new nickname for Indonesia was introduced after several natural disasters happened in the last few years. Indeed tsunamis, earthquakes, volcanic eruptions, floods and other disasters have been taking turns to strike different areas in Indonesia.

People in Indonesia have been extremely skittish about the possibility of earthquake-induced tsunamis since December 2004, when gigantic waves triggered by a 9.1-magnitude quake that killed more than 130,000 people in the Province of Nanggroe Aceh Darussalam. Scientists who have studied the area have warned that Padang, Indonesia, was particularly at risk for powerful earthquakes and tsunamis as the geological rupture that caused the 2004 destruction travels south.

Indonesia, a chain of islands in a seismically active area, is highly prone to earthquakes. Since the devastating tsunami of December 2004, Indonesia has fallen victim to 15 earthquakes with magnitudes of 6.3 or higher, according to the US Geological Survey. The quakes have killed almost 8,000 people.

Mount Merapi, the most active of 129 live volcanoes in Indonesia, sent out a deadly cloud of gas that incinerated 60 people in 1994, and about 1,300 people died in a 1930 eruption. The clouds of volcanic ash, gas and debris, are the

biggest threat to residents, who are drawn to Merapi's slopes because its fertile volcanic soil makes for bumper crops.

The volcano in the heart of densely populated Java Island had been rumbling for weeks in May 2006, spewing ash high into the air and pushing lava to the surface, where it has formed a large unstable dome. Authorities declared the highest danger alert, triggering mandatory evacuations for some 4,500 residents. During the month of July 2007, the Government Indonesia issued an alert status to ten volcanic mountains in various parts on Indonesia, including Mount Merapi.

In addition, Indonesia has been frequently hit by floods and landslides due to lack of forest-covered areas, which are not able to hold excessive water during heavy rains. Forest destruction and illegal logging have been blamed for the problem.

Between January and May there were many terrible floods in Indonesia. In January floods hit North Sumatra and Nanggroe Aceh Darussalam. In April, flood in Belu (East Nusa Tenggara) affecting more than 3,500 households, while in May 2007, a flood in Palu (Central Sulawesi) inundated at least 3,600 houses and forced 14,400 people to leave their homes.

Jakarta, the capital city of Indonesia, has been hit by some of the worst flood in years. Some areas were said to be submerged 4m under water. The floods began in early February and, at one point, covered 80% of Indonesia's capital. During the worst flood in March 2007, about 200,000 were homeless, with 20 found dead.

Parts of Jakarta have experienced loss of various services, including electricity, clean water, telephone and mobile phone service, etc. The flood was so bad and reached places which never experienced it before.

Internet access also has been affected, with Telkom (one of the biggest Internet Service Provider) Internet giving out sluggish performance. Telkom's datacentre, which hosts the Indonesian President's website, was also affected when the electricity went out and the generators could not be started because it was located in the basement, which was already submerged under water.

According to Walhi, a coalition of several environment NGOs, in 2006 Indonesia endured 364 disasters with more than 10,000 deaths and injuries, and trillions of rupiah in damages. Of the 364, 135 were categorised as natural disasters and the rest as man-made. As a result of all the disasters, the original allocation of IDR 500 billion (USD 55.4 million) in the state budget for dealing with disasters had to be revised up to IDR 2.9 trillion. Data for 2007 is not available yet, but it will most probably be higher than the above figure, considering the more frequent disasters happening during the year of 2007.

5. Focus on Papua: Launching of "The Ecology of Papua" and Auction of Papuan New Species

Many scientists considered Papua to be the 21st century "biodiversity frontier" due to limited information about its natural history and biodiversity. After almost ten years of hard work, involving 86 contributors and researchers from 14 countries representing 59 institutions, finally "The Ecology of Papua", edited by Andrew J. Marshall and Bruce M. Beehler, has been completed.

The book was made in cooperation with Conservation International, University of Cendrawasih, and the Arnold Arboretum of Harvard University, with support from the Gordon and Betty Moore Foundation, BP and Tangguh Partners. It was published by Periplus International.

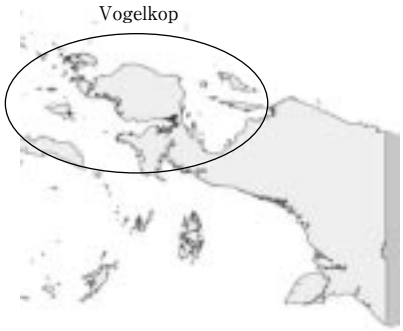
The two-volume, 1,467-page book was launched in Jakarta in September 2007. The event was attended by many representatives of the Government of Indonesia, several ambassadors to Indonesia, public and private sectors, conservationists and researchers from Papua. In the book, experts comprehensively discuss various topics about Papua, including

the history of geology, the land, the climate, the richness and uniqueness of its flora and fauna, the biogeographic and paleoecological processes, the history of the human existence on Papua, and its traditional culture.

The book completes a series of Indonesian Ecology publications. Other titles in this series are Ecology of Indonesian Seas, Ecology of Sulawesi, Ecology of Kalimantan, Ecology of Sumatra, Ecology of Java and Bali and Ecology Maluku and Nusa Tenggara, most of them were published before 1997.

Following the launching of "The Ecology of Papua", the naming rights for 10 newly discovered species of Papuan fishes were auctioned off in Monaco. The auction was sponsored by Conservation International and Monaco-Asia Society, under the patronage of Prince Albert II.

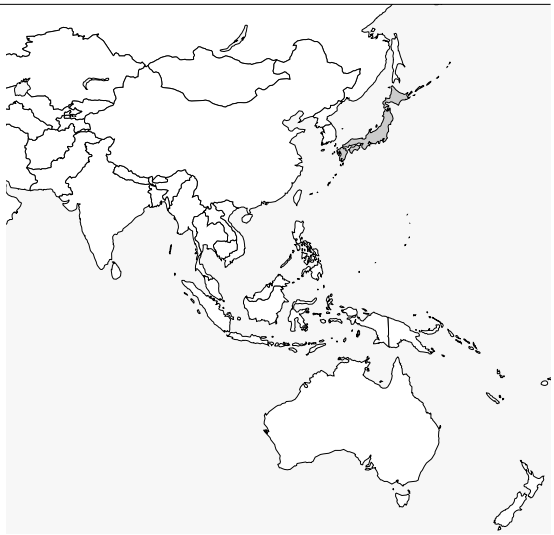
The "Blue Auction", featured species found last year (2006) in the Vogelkop (Bird's Head) Seascape, fetched bids ranging from USD 50,000 to a high of USD 500,000, which went on a *Hemiscyllium* shark from Cendrawasih Bay. The event raised more than USD 2 million, which was the highest record for an event of its type. The identities of the winning bidders, and the names they chose, were not immediately disclosed. The funding from this auction would go to educational programmes and for rangers to protect the habitat, where the fishes were discovered.



PAPUA

Japan

Yohei Harashima
Associate Professor
Takushoku University



1. New Proposal on Climate Change, "Cool Earth 50"

The issue of climate change has been a growing public concern in Japan. Media such as television and newspapers made great play of communicating the serious impact of climate change. The documentary film "An Inconvenient Truth" focused on the Nobel Peace Prize winner Al Gore's crusade against climate change and had a major impact on Japanese society. The recent public opinion survey by the Japanese government showed that more than 90 % of the population are concerned about global environment. In order to contribute to international climate policy-making, the Japanese government launched an initiative called "Cool Earth 50" in May 2007. One of the proposals it advanced as a common goal for the entire world was to set a long-term target of cutting global emissions by half from the current level by 2050. At the next G8 Summit held in Toyako, Hokkaido, Japan, the main agenda will be creating a new international framework in the post-Kyoto Protocol era. In the meantime, additional measures against climate change are strongly needed in Japan because the 6% reduction in emissions called for in the Kyoto Protocol is deemed to be extremely difficult to achieve under the present circumstance.

Detailed information on the proposal on climate change, "Cool Earth 50" is available by accessing the office of the Prime Minister at: http://www.mofa.go.jp/policy/environment/warm/coolearth50/index.html

COP 13 at Bali, Indonesia

2. Shut Down of Nuclear Power Plants after Strong Earthquake

Some power plants in Kashiwazaki-Kariwa Nuclear Power Station, one of the largest in the world, were shut down automatically after the Chuetsu Coast Earthquake in Niigata on July 16 2007. This power station is the main source of power supply to the Tokyo metropolitan area. While there was no outside leakage of radioactivity, all the power plants in this power station were shut down in order to ensure their safety. The International Atomic Energy Agency (IAEA) assembled a six-member team of international nuclear safety experts to conduct a fact-finding mission regarding the conditions of the power plant. The IAEA team

concluded that "the Kashiwazaki-Kariwa Nuclear Power Plant in Japan, though affected by a strong earthquake, shut down safely and damage appears to be less than expected." Nevertheless, this accident undermined public confidence in the safety of nuclear power stations, and it is also feared that it would have adverse effect on domestic policy measure against climate change.

Results of invitation by IAEA teams can be found on the IAEA website at:
http://www.iaea.org/NewsCenter/PressReleases/2007/prn200716.html

3. Reducing the Use of Plastic Shopping Bags

Promoting 3Rs (waste reduction, reuse, and recycle) is one of the key agendas in Japan's environmental policy. The effort that attracted the most attention was to reduce the use of plastic shopping bags because it is directly related to people's everyday life. In Japan, approximately 30 billion plastic shopping bags are distributed every year. The Japanese government proposed to introduce mandatory charges to plastic shopping bag in the process of amending the Law for the Promotion of Sorted Collection and Recycling of Containers and Packaging. However, this proposal could not gain much support. Alternatively, the amended law introduced measures to promote business operators to reduce the use of plastic shopping bags. Business operators using more than a certain quantity of plastic shopping bags were also mandated by the state to annually report their efforts to reduce this amount. As a result, major supermarkets and convenience stores have respectively launched new services to offer privileges to users who do not use the plastic shopping bags. Some supermarkets have, on a trial basis, started to charge for plastic shopping bags that were previously distributed for free.

Detailed information on the Law for the Promotion of Sorted Collection and Recycling of Containers and Packaging is available from the Ministry of Environment at:
http://www.env.go.jp/en/laws/recycle/07.pdf

4. China's Environmental Crisis: Impacts on Japan

China's environmental crisis due to its rapid economic growth attracted tremendous public interest because it would affect people living in Japan. Questions with regard to this situation were raised such as: Is photochemical smog in Japan caused by air pollutant emitted in China? Are Chinese agricultural products contaminated by agricultural chemicals and environmental pollutants safe? Are large amounts of recyclable garbage exported from Japan to China? Does waste dumped in China wash up on the shores of Japan? Is the amount of Yellow sand carried from China to Japan increasing? Does acid deposition transfer from China to Japan? The governments of Japan and China have had joint experience in the operation of environmental co-operative projects funded by Japanese Official Development Assistance (ODA). Both governments' political leaders initiated a dialogue regarding specific co-operative projects according to agreements in the area of energy and the environment at the end of 2006. It is crucial that Japan and China work together to overcome the environmental crisis.

5. False Food-labelling Scandals

In January of 2007, it was reported by the media that Fujiya Co., a well-established confectionery maker, had been using expired ingredients in its cream puffs. Meat Hope Co., a food processing company, was reported to have routinely mixed pork and chicken into its "beef" products. Subsequently similar false food-labelling scandals were revealed to the media. These scandals included cases of famed

confectionaries such as "Akafuku Mochi rice cakes" and "Shiroi Koibito white chocolate cookies." These practices of false food-labelling had been continued for many years. In the aftermath of such scandals, these companies faced financial crisis because their products were removed from store shelves. In light of corporate social responsibility (CSR), companies must disclose product information by correct labelling. The idea of CSR has been widely accepted in the business community in Japan. Companies which cannot fulfill their CSRs will be forced out of Japan's market.

Republic of Korea

Yoonmee Lee
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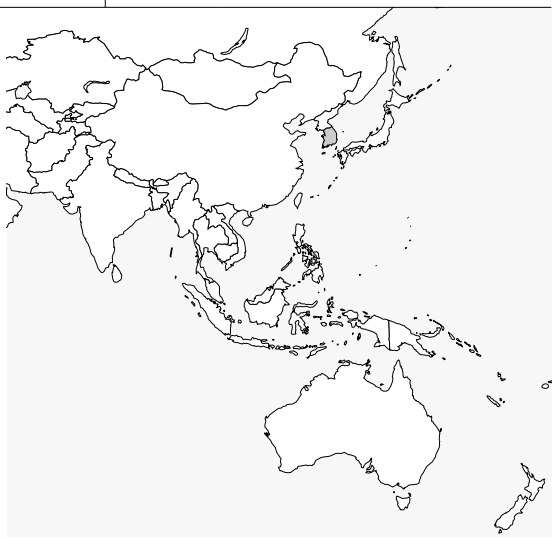

1. Legislation of the Sustainable Development Act

The Framework Act on Sustainable Development was enacted in July, 2007. The enactment of the Act is the result of seven years of efforts such as the creation of the Presidential Commission on Sustainable Development in 2000 and the declaration of the "National Vision for Sustainable Development" by President Rho in 2005. The Act requires the Government to establish and implement a framework strategy for sustainable development over 20 years and action plans every five years, while local governments are required to develop their own strategies and action plans. The Act also creates the National and Local Commissions on Sustainable Development, whose function is to review the Government's mid to long-term plans and legislations to enhance their sustainability. The Act requires national and local indicators for sustainable development to evaluate national sustainability. With this Act, the Republic of Korea (ROK) becomes one of a few countries, among them Belgium and Canada, with specific legislation on sustainable development. The Framework Act on Sustainable Development also reaffirms ROK's commitment to deliver on international commitments made at the World Summit on Sustainable Development in 2002, which called for every country to take urgent action and implementation toward sustainable development.

2. Worst Marine Oil Spill and Voluntary Cleanup Efforts

About 12,547kl of crude oil was spilled into the sea off Taean, South Chungcheong Province, on 7 December, 2007, following the collision between a Hong Kong-registered tanker carrying 302,641kl of crude oil and an industrial barge. The tanker's holds were ruptured, causing the oil spill. The leak was more than double the 5,000 tons spilled from the Sea Prince in July 1995, then the nation's worst oil spill incident. Roughly 5,600 hectares of sea farms in Taean were polluted, as were local mud flats. The disaster is expected to deal a heavy blow to tourism as well as the oyster and abalone farms in Taean County. Over 1 million government personnel, local residents and volunteers helped clean up the spill. Until now, twenty thousand volunteers a day participated in the ongoing clean-up operation.

3. Water Industry as a Future Industry

The ROK Government fosters water industries such as water supply, sewerage treatment and sea water desalination as future industries. The Ministry of Environment, Ministry of Finance and Economy, Ministry of Construction and Transportation, and Ministry of Commerce, Industry and Energy approved the "Plan to Foster the Water Industry" on 16

July, 2007. The global water industry, also known as 'Blue Gold,' grossed 830 trillion KW since 2003 and is expected to grow to 1,600 trillion KW by 2015.

The government will integrate small-sized water services in 160 local governments into 30 bigger services. In order to open up the services to fair competition, private companies will be allowed to operate water related businesses. Until recently, only local governments and the Korea Water Resources Corporation were allowed to participate. In order to support the new services, a Water Industry Promotion Division was established at the Ministry of Environment in June 2007.

4. Waste Recovery Policy Kicked Off

The government announced a paradigm shift in recycling policy by integrating waste management into the economy. First, the share of recycled aggregate in aggregate supply will increase from 15% to 30% by 2011. The Government will invest 362 billion KW for relevant policy research and recycling technology development. The ambitious goal to reduce construction waste generation was set at 15% in 2011, up from 5% in 2007. By strengthening treatment criteria in middle stages, the construction waste recycling plan is expected to stay on track. Experts expect the policy to earn 2.200 trillion KW profit. The supply of recycled aggregate is expected to increase three times and could substitute virgin aggregate. The ROK government amended the 'Act on the Promotion of Saving and Recycling of Resources' so that the paradigm of stable treatment and recycling of waste moves forward. The Act will become valid in January 2008.

5. New and Renewable Energy Supply will Increase to 9% by 2030

By 2011, 5% of total energy consumption will be supplied by new and renewable energy. By 2030, the level is expected to reach 9%. The goal of increasing new and renewable energy supplies from the present 3% to 9% over 20 years may not seem high, but wind power, photovoltaic systems (PVs) and hydrogen fuel cells take up only 5% of total new and renewable sources. As of 2005, waste energy accounted for 75.9%, and hydraulic energy accounted for 18.8% of total new and renewable energy. The government plans to foster three high-priority areas - wind power, PVs and hydrogen/fuel cells - and increase their share to 10% of new and renewable energy. In 2007, the government supplied 5.3 million TOE (Ton Oil Equivalent) of renewable energy and expects to deliver 5.7 million TOE in 2008. Of the increase, there will be a 250% increase (from 62,000 TOE to 217,000 TOE) in wind power and a 237.5% increase (from 8,000 TOE to 27,000 TOE) in PVs. Also, the government plans to spend 73% of its R&D budget, or 87.9 billion KW, on solar, photovoltaic, hydrogen fuel cell and IGCC (Integrated Gasification Combined Cycle) innovations.

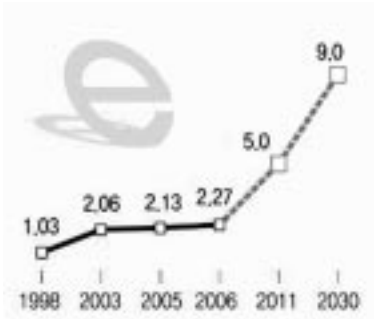

Fig. Supply of New and Renewable Energy, Republic of Korea (%)
Source: ROK Ministry of Commerce, Industry and Energy and the Korea Energy Management Corporation

The Ministry of Commerce, Industry, and Energy continuously expands renewable energy to local areas. It has a national target to have photovoltaic systems installed on 100,000 roofs, and a bio-energy power system in Jeollabukdo. The government will integrate new and renewable energy supplies into welfare policy by having photovoltaic systems installed on the roofs of one million public rental housing units.

Lao PDR

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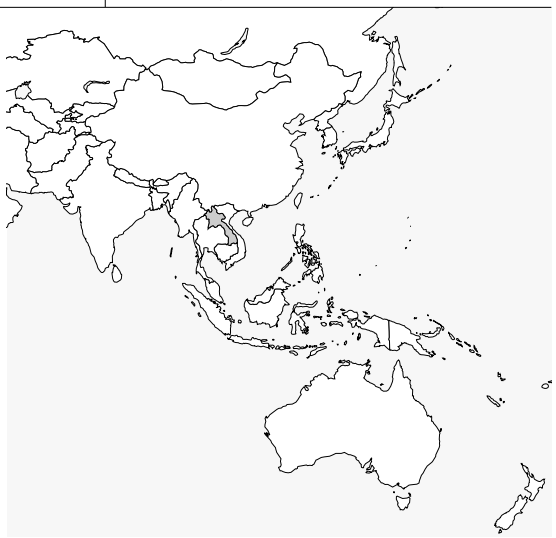
National University of Laos



1. New Lao National Organisations in charge of National Land Management, Water Resources and Environment for Sustainable Development

This year the Lao Government concentrated on natural resource management and good governance for sustainable development by restructuring some new organisations on a Ministry level. These are the National Land Management, Water Resources and Environment and Science Technology organisations. In the past, the Science Technology and Environment Agency (STEA) was solely responsible for the important role of managing the country's environment and technology as well as being in charge of natural resource use planning and control for sustainable development. This was judged to be too much work for one organisation, so the government decided to divide it into two new organisations - Water resources and Environment and National Land management.

The national land meeting was held on 7-8 May 2007 in Vientiane with the Prime Minister of Laos PDR Bouasone Bouphavane acting as Chair. The meeting unanimously agreed the following points:

1. To recognise the importance of land and natural resources and the duties and roles in protecting and conserving them, and developing the country so that it has strength and so it can see continuous economic growth, so that people have income and good quality of life and so that society is peaceful, civilised and just.
2. To recognise the real current condition of the land and natural resources, including forest water and biodiversity. These resources have been degraded and destroyed in many ways, as a result of land management which has not passed through a proper planning process. This has led to excessive land use which exceeded its carrying capacity.
3. To recognise that effective direct and indirect management, protection, conservation and development is needed so that the environment is not destroyed.
4. To recognise the need for survey and allocation of land into zones and land types, and planning and setting up maps of land use and natural resources throughout the country.
5. To recognise that care must be given to duties to manage, protect and conserve the natural resources and the environment, and that the sustainable development and use of land and natural resources must taken seriously.

Reference: Resolution of the National Land Meeting 7-8 May 2007

2. New Strategy of Lao PDR on Forest Management Classification

As a result of the Lao national conference on new national forest management and governance held from 28 February to 1 March 2007, it was agreed that the former forest management classification is not suitable for management because there are too many types that people or local communities do not understood, and there is no clear bondary between forest types such as reserve, protected, production, rehabilitatation and degraded forests. So in order to avoid such problems, it is necessary to combine them into three forest management types - Reserve, Protected and Production forests.

In 2008 we need to proceed with the the establishment of production forests and work on protected forests will proceed in the year 2010. We need to do a detailed survey and border demarcation for every type of forests, using strong governance.

Protected forests must be absolutely reserved and protected, logging must be stopped, and we must accept some species for non-timber harvesting by village communities on the buffer zone.

The production forests have been converted to sustainable management and governance by strong technical principles. In areas where there is forest that is not managed yet, there must be periodic announcements to close the forest i.e. do not allow harvesting until the survey and management plan has been developed that can allow timber to be harvested. There must be work done to survey the plantation land area and identify clearly the tree species for planting.

Reference: Agreement on implementation of Prime Minister of Lao PDR decree number 25, 3 April 2007, from the national forest conference resolution made on 1 March 2007

3. Natural Disasters in Lao PDR and Lao National Strategy on Natural Disaster Prevention

Due to social economic development such as urban development, environmental problems and global warming have lead to almost 90% of the Asian population to be affected by the negative impact of disasters such as typhoons, earthquakes, tsunami, flood, drought and another natural hazards. In 2007, Lao PDR was also heavily affected by natural hazards such as flood, drought, fires, typhoons and disease.

In order to prevent and reduce the impact of natural hazards in the future, the Lao Government has developed the following strategies:

1. To improve and establish the Sentinel network from central government down to village communities.
2. To improve Capacity building for every level of the Sentinel organisation.
3. To improve and establish an information system of emergency announcements and natural hazard security maps.
4. To improve the mechanism of internal and external coordination
5. To improve capacity building for communities in order to prevent disasters and create self help.
6. To be active in implementing the Hyogo Framework of Action.

Reference: Lao People Newsletter 11 October 2007

4. Mekong River in Vientiane 25 - 26 October 2007: Lao Traditional Culture Boat Festival

Every year, as part of Lao traditional culture, a boat festival has been held in order to give thanks to Buddha for the year of cultivation. The buddha gave the people water, soil, air and vegetation. So every year, at the end of the rainy season, especially from the middle week

and up to the last week of October, Lao communities with official admistrative at district or provincial level have to organise a party. Over the four to five days of the party, there is trading in different goods, singing songs, dancing and music, and many people come to join the night-time party. The night before the boat festival, people bring fire flowers to float on the river and pray that they will have a good life. They ask for health, support and good luck so that they can increase their income and have good agriculture production in the coming year. They call on the four Buddhas of Air, Water, Soil and Vegetation to continue to provide and take care of the country's natural resources to create a good environment for all the people.

In 2007, Vientiane has seen many changes in its environment; the city has been developed to create a new face with many improved infrastructures, making it clean and peaceful. However, many things still need to be done; more effort needs to be made to reduce traffic and accidents, to prevent waste increasing, and stop the degredation of natural resources due to many non-sustainable activities.

Reference: Lao TV news 27 October 2007

5. Floods at the Beginning of Last Month of the Rainy Season in Lao PDR

This year, Lao PDR was flooded in many places in the country at the beginning of October. Actually the highest rain fall is usually in August and September, but in 2007 it was shown that by the end of September there was almost no rain according to meteorological data recorded by the meteorogical station at Vientiane Dong Dok Faculty of Forestry of the National University. Then during the period at the beginning of October, there was very heavy rain because of a tropical monsoon.

Due to very high rainfall over a long time, the main rivers and distributaries flooded the low and flat land which is mostly paddy land, and there was a loss of agriculture production. The TV news on 16 October reported that more than 21.142 ha of paddy land in Savanakhet province was flooded with a loss of more than 5.15 million kips. In the North of Laos, Samnua province was also flooded across the flat land especially in the Samtai district. Agriculture land was destroyed, many places was eroded and land slides occurred. Many households, school buildings and household resources were lost. There was a total of 2.6 billion kips of damage in five villages only, and another 17 villages on the flooded site still have not provided information on their conditions.

The south of Laos Salavan province was also affected by heavy rain, which continued for one week from 1 - 6 October. Many rivers flooded over the beach and into agriculture land, and some roads and bridges were destroyed It has been calculated that the economic cost will be more than 1. 85 billion kips.

Reference: Lao People Newspapers 18 and 22 October 2007

Malaysia

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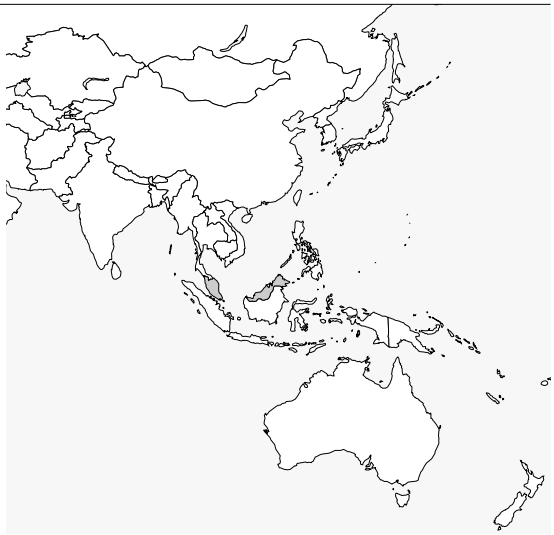


1. Bracing for Climate Change — Initiatives for Efficient & Renewable Energy

Being the theme of the moment, climate change was consistently in the news throughout the year and featured strongly in multi-themed seminars and conferences, among them the Asia Media Summit 2007, 29 - 31 May, the Asia Pacific Roundtable (APR) 5 - 7 June, 12th Annual Asia Oil and Gas conference, 10 - 12 June, and the 2nd Asia Pacific Conference on Public Health, 3 -5 July.

In January, UK-Malaysia Climate Change Business Seminar examined potential collaboration between local and UK companies in the development of specific projects under the Kyoto Protocol (KP) Clean Development Mechanism (CDM). In February, the Deputy Prime Minister launched a pioneer oil-palm biomass generated power plant at the Sahabat Felda scheme in Lahad Datu, Sabah. A certified project under the government's CDM programme, the plant is part of international efforts to reduce emission of CO_2 under the KP.

About the same time, the Cabinet gave the green light for oil companies to comply with new standards, similar to the EU's, which stipulate a lower sulphur content, i.e. a drop from 0.3 % to 0.05 % in diesel, and a drop from 0.15 % to 0.05 % in petrol. Early in July, the Plantation, Industries and Commodities Ministry announced that the EnvoDiesel green fuel (blend of 5 % palm olein and 95 % petroleum diesel) would be sold at subsidised rates to motorists when available. With the implementation of the Biofuel Industry Act in early 2008, the Malaysian Palm Oil Board will be entrusted to regulate biodiesel development.

By the end of August, Universiti Teknologi Petronas (UTP) in Tronoh, Perak developed a concept demonstrator prototype of a series hybrid vehicle, the invention of which won three awards — gold, silver and bronze at the Invention & New Product Exposition 2007 in Pittsburgh, US., in categories of Alternative Energy, Automotive & Transportation, and Vehicles, respectively. UTP also found a novel way to produce methanol from renewable natural resources, viz. palm kernel.

In the drive for more sustainable infrastructure, a 'Green' Buildings campaign was launched by the Prime Minister on 15 March, to promote construction of buildings that will comply with (i) sustainable site planning, (ii) safeguarding water & water efficiency (iii) energy efficiency and renewable energy (iv) conservation of materials & resources, (v) indoor environmental quality and (vi) innovation in design. In June the Suria 2000 programme was launched that would enable home owners to bid for subsidies to install building integrated photovoltaic (BIPV) systems.

2. Biological Diversity — Rehabilitative Actions for Flora and Fauna

Early March saw the introduction of captive breeding for the Milky stork by the Ministry of Natural Resources and Environment (MONRE) at the Matang mangrove forest reserve in Kuala Gula, Perak. Around the same time, the Save our Seahorses (SOS) organisation recommended an integrated coastal management plan be implemented through the formation of Pulai River (in Johor) estuary committee.

In April, 17 fishermen from China were fined a total of MYR1.8 m for encroaching into Malaysian waters and catching two types of protected turtle species. To further protect the reptile, in July the authorities announced that 'turtle-friendly' hooks would be introduced to coastal and deep-sea fishermen nationwide this year; so that the currently-used 'J' hooks, which are likely to latch on to turtles deep in the mouth, would be replaced by the safer circle hooks, already being used in Pahang.

Also in July, the Sultan of Perak launched the WWF Malaysia Sumatran Rhino Survey expedition, which would see a team of 80 wildlife experts & researchers, WWF officials & academics track Sumatran rhinos through 7 blocks of forests in the Belum state park. To counter illicit trade in animal parts, as reported mid-September, a test kit was developed that can detect bear protein in medicine. In Trengganu, early November, the state government proposed reviving the Green Peafowl (largest pheasant in the Peninsular) population next year. Also in Trengganu, a MYR2.8 m BioD study centre was mooted early February, to be sited near Cemerong waterfall.

Late February, a National Conservation Trust Fund was proposed, comprising of NGOs and Resident associations which will buy up multimillion ringgit green lungs nationwide so that they will not be developed. In Kedah, Langkawi island was given geopark status on 1 June, the first in South East Asia to get UNESCO endorsement, fulfilling as it does the three prerequisites of large mangrove park, natural resources such as beaches and islands, and multiracial culture. In late August an MOU was signed for the Danum Valley Field Centre in Sabah, which is supported by Petra Foundation (through its UK based subsidiary, Green Rubber Global) and The Royal Society South East Asia Rainforest Research Programme (SEARRP). By the first week of October, the Cabinet approved a MYR 141 m allocation to develop a botanical garden in Bt Cherakah, Shah Alam, due for completion in 2013.

Lastly, rare sightings deserving mention are (i) the humpback whale (also other whales and dugongs) off Miri's coast, 24 June, during an aerial survey jointly conducted by Sarawak Forestry Corporation, UM Sabah and Sabah Wildlife Dept, and (ii) the Amur Falcon (rarely found in this part of Asia) in Trengganu, late November.

3. Water — Impending Shortages and Fragmented Management

In February, Selangor's water supplier Syabas announced plans to explore underground water to mitigate dry spells in the Klang Valley, followed by an announcement that a list of measures was being drawn up to prepare for possible drought. Running up to the water conservation campaign for Selangor, assurance was given by the new National Water Services Commission (SPAN) Chairman Tan Sri Zaini Omar that piped water would be available 24 hrs a day, 7 days a week even in the advent of crisis.

In conjunction with World Water Day on March 22, ISIS Malaysia organised a Conference on "Managing Challenges towards Sustainable Water Resources and Environment", with the support of the Selangor, Kuala Lumpur and Putrajaya Water Association (SKLPWA), government agencies and water-related companies. The event addressed government

Minister of Energy, Water & Communications, The Hon. Dato' Sri Dr. Lim Keng Yaik, delivering the Keynote Address at the Conference on "Managing Challenges towards Sustainable Water Resources and Environment", March 2007. *(photo: ISIS Malaysia)*

Panel in session at the Conference on "Managing Challenges towards Sustainable Water Resources and Environment", March 2007
(photo: ISIS Malaysia)

and industry roles in water management, challenges in water and wastewater governance, linkages to solid waste management, protection for catchment areas and the balance between consumers concerns and producers' capacity. Officiated by the Minister of Energy, Water and Communications, the conference recommended, among others, saving rainwater and sourcing underground water to mitigate impending shortages.

Four months later, MONRE raised the need for laws to ensure a more integrated water management system given the fragmented nature of the current approach. A step in this direction, mooted late July, was to merge sewerage charges with water bills, enabled by the Water Services Industry Act. Meanwhile, authorities assure that shortage can be mitigated by conserving water, reducing consumption and repairing old water pipes to reduce non-revenue water (NRW). MYR 640 m has been allocated under 9MP for this purpose; and in the pipeline is the Pahang - Selangor water supply project, for which an agreement was to be signed in November.

Finally, two events occurred that showed promise — one, reported on 10 March, the Universiti Sains Malaysia (USM)'s successful treatment of palm oil waste into drinking water, in a project receiving a grant from Yayasan Felda. The other was the discovery in late August of giant water-filled caverns in Perak, perceived as a potential source of underground water.

4. Municipal Solid Waste — Alternatives to Landfills, New Legislation

Efforts have been on-going to seek alternative ways to handle municipal waste. The Selangor state was, as of February, considering using mobile incinerators for densely populated areas, to complement landfills; and in early March, the Deputy Prime Minister led an official visit to the Chuo incineration plant, near Tokyo, to study hygienic methods to treat waste. By late July, more appropriate forms of solid waste (SW) management were being considered, e.g. incinerators, refuse-derived fuel and material recovery facilities, although admittedly, landfills cannot be totally dismissed.

To encourage recycling, the Ministry of Housing and Local Government (MHOLG) will announce the price of disposing of waste once the SW Management Bill is tabled. Those with more waste will pay more, and legislation will be put in place to provide for penalties on those who do not recycle. By late June a MYR 1 billion budget was announced for waste management services to be streamlined nationwide under one single entity, a yet-to-be designated corporation.

The SW and Public Cleansing Management Bill will, among other things, provide for a

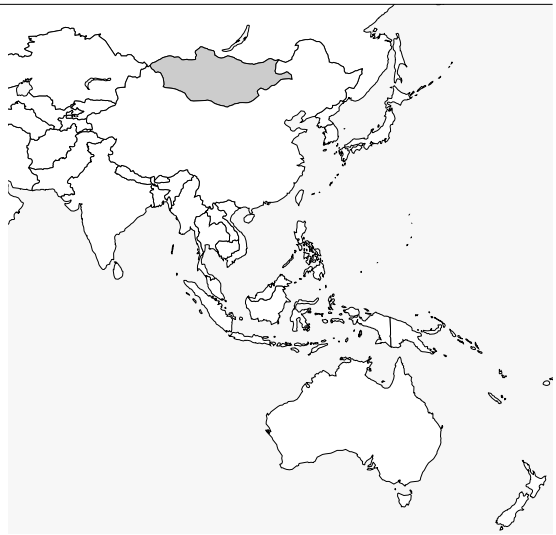
Tribunal for SW management services which will deal with claims, especially those of fees and charges owed to service providers. Furthermore, problems such as scavengers, unregistered collectors or recycled items and illegal dumping will be better handled. Construction of landfills will have to meet tough requirements, and manufacturers made to take back and safely dispose of, or recycle, products.

In the interim, two developments offer a positive outlook; one being the long-suffering Taman Beringin dumpsite which is now Malaysia's first fully engineered landfill closure and rehabilitation project, after its closure on 15 March 2006. A MYR24 m campaign by City Hall has turned this rubbish hill into a picturesque grass-covered mound likely to be turned into a nursery, while rent and property value in the area has increased dramatically. The other is a 'Cash for Trash' programme in Meru, Klang, which, at 10 sen per kg, is so successful that residents may be stealing garbage for extra money.

Sanitary landfill underway at a Kuala Lumpur dumpsite
(photo : ISIS Malaysia)

Mongolia

Ayush Namkhai
Director-General of Special Protected Area Administration Department
Ministry of Nature and the Environment



1. Mongolian Law on Living Modified Organisms

The State Great Khural of Mongolia has adopted the " Law on Living Modified Organisms" on June, 2007, within the National Biosafety Framework Project implemented by the Ministry of Nature and Environment in collaboration with Global Environment Fund and Government of Mongolia,

The main objective of the Law is to regulate conditions regarding the safe handling and use of living modified organisms, their transboundary movement through the state border and protection of biosafety within the territory. This new Law certainly will make an efficient and profound contribution to the maintaining of bio-safety, as well as to the protection and sustainable use of biological diversity in terms of its legitimace and economy.

The "National Standing Committee on Biosafety" has been established with 13 members consisting of representatives from relevant state administrative authorities and biological research institutions.

The fast development of modern biotechnology and genetic engineering has led people to use products derived thereof, on a daily basis. Therefore, it is important to benefit from modified organisms obtained through genetic engineering in a wide range of fields, whilst preventing any adverse effects.

Source: Journal of "Turiin medeelel" 2007. No 18

2. New Forest Law is Approved

A new Forest Law, which was developed and approved recently (18 Aug. 2007) by Mongolian Parliament, is largely reviewing forest management policy in Mongolia.

The new Forest Law is supporting community-based co-management of forest resources on the base of leasing and allocation forest resources to the local communities. According to this law and the new forest policy, the target is to allocate almost 50 % of national forest land to local communities in the period until 2021. Mongolia has a vast area under forest cover, but in the past, management of these resources has been minimal. The Forest Law allows for the establishment of Forest User Groups or other kinds of local forest "communities."

When issuing the ownership of forest resources to the communities, economic entities and organisations by co-management contract, it is allowed that the duration of the possession is one year as a starting phase. This phase could be used for preparations and could be followed by a 10 year and up to 60 year contract, based on the subdistrict level *(bag* and *khoroo's citizens khural)* proposals, and resolutions of *citizens representatives khural* at the district level *(sum).*

According to the new law the forest managment structure must be reviewed, and at national level a Forest Agency should be

established. At the provincial (*aimak*) and district level, forestry bureaux and units will be newly organised and established to clarify the roles and responsibilities of all stakeholders for forest resources management, sound use, restoration and conservation.

Source: Journal of "Turiin medeelel" 2007. No 27

3. Mitigation Arrangements for Air Pollution

One of the most sensitive problems of the environment is Ulaanbaatar air pollution which has increased by 2-3 times NO_3 nitrogen content from permittable levels. Serium content (SO_2) is 2.5 times in the air during the winter season. In this connection, the 46th resolution of State Great Hural on various measures for air pollution mitigation and the 218 resolution of the Mongolian Government on mitigation measures for air pollution were issued and began to be implemented.

These arrangements include the issuing of legislation for the "Polluter Pays principal", sharply reducing raw coal consumption, changing *ger* districts by building modern apartments, reduction of heat loss, enhancing of monitoring air quality and deciding how to finance these projects. Two billion tugricks were allocated for 2008 to reduce raw coal consumption, and to fund a newly establish air quality state authority as well as expand the air quality control network in 5 settlements and by using one mobile station. In addition, a decision was taken to invest in construction in *ger* districts.

Source: Journal of "Turiin medeelel" 2007. No 19

4. A Programme for Less Impact on the Environment from Mining Activities

According to the investigation in 331 mining entities in 2006, there were 13718.5 hectares where mining activities had caused damage, of which 2553.2 hectares or 18.0% had been restored and 11200.0 hectares had been left without restoration.

With these investigation results, the Ministry of Environment decided to take measures for mineral exploration and mining activities that use environmentally sound technology to restore the last unrestored mining area and then carry out restoration simultaneously with mining activities. The ministry is organising implementation of a Mongolian Government project "Programme for Less impact on the Environment from damaging mining activities".

As a result of implementing this programme, legal coordination will be created and non-restored land without a responsible owner will disappear by 2012. It is hoped that technical and biological restoration will be carried out on at least 80% of previously non restored land.

Source: Newspaper "Zuunii medee" 2007. No 2

5. Mongolia's Third National Report on Implementation of CBD

As a signatory to the Convention of Biodiversity (CBD), Mongolia is implementing the CBD's features in its national strategies and plans through inclusion in its Environmental Action Plan, the Mongolian Agenda 21 and through functional plans such as the National Programme of Protected Area, Combat Desertification Action Plan and the National Action Programme on Climate Change. As part of its obligations as a signatory to the CBD, Mongolia recently developed a National Biodiversity Strategy Action Plan (BSAP) with GEF funding through the assistance of UNDP.

The Ministry of Nature and Environment is preparing national report on the implementation of the Convention on Biological Diversity (CBD). Recently, the Ministry has prepared the third national report on the implementation of the Convention on Biological Diversity (CBD). The report was prepared according to "A guide for countries preparing Third National Reports" by the Convention on Biodiversity.

Data necessary for the preparation of the report was collected from a range of information sources such as government policies on biodiversity conservation, the 2003 and 2005 State of Environment Reports, the Second National Report on Biological Diversity in Mongolia, international and national project reports, research work, and other relevant publications. The Ministry of Nature and Environment submitted a copy of the National Report to the CBD Secretariat and UNEP. In addition, reports were distributed to different ministries, research institutions, universities, and the public.

Invaluable contributions from relevant line Ministries, non-government organisations and scientists and researchers from various professional and research institutions played a fundamental role in generating this report.

Source: Mongolia's Third National Report on Implementation of Convention of Biological Diversity, 2007

6. 10th Meeting of East Asian Biosphere Reserve Network

The 10th the Meeting of UNESCO East Asian Biosphere Reserve Network (EABRN) has been organised by the Mongolian National Committee for the MAB, the Mongolian National Commission for UNESCO and the Ministry of Nature and Environment of Mongolia and the Ministry of Environment of the Republic of Korea for its continued professional and financial support to the EABRN and UNESCO Office Beijing for its concerted coordination in Terelj, National Park, Mongolia, 2-5 September 2007.

The 10th EABRN meeting was held on the subject of "Protection of Sacred Natural Sites: Importance for Biodiversity Conservation" and presented country reports on biosphere reserves activities. The participants discussed various issues related to the East Asian Biosphere Reserve Network under the global MAB Network. The parties agreed on the decision of Ad-Hoc Committee meeting of EABRN Members on the possible venue for the 11th EABRN meeting: in line with the rotation principle, the next meeting of the EABRN should be held in the DPRK. The DPRK MAB Committee delegates will consult the National Authorities and inform its decision the EABRN secretariat about the possibility of organising the 11th EABRN meeting.

The 3rd EABRN Training will be extended possibly on GIS technology implications on specific issues related to BR management, BRs reviews of EABRN members at the 11th EABRN meeting. There is also a need to hold a session of Biosphere Reserves review from EABRN member countries, and the EABRN Project Secretariat will continue the second phase of BRs Atlas for Japan, Republic of Korea and the Russian Federation.

Source: "Unuudur" Newspaper, 3 September, 2007. No. 193

Myanmar

U Tin Than
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1. Wildlife Trade in Myanmar

Continual existence of illegal wildlife trade is still a severe threat to the existence of original plants and animal species in the future of Myanmar's natural environment. The tiger is now almost extinct in this country due to the high demand of tiger bone, oil and pelts in the markets in Ruilli and Tachilek in late 1980s and early 1990s. Body parts of otter, pangolin, gaur, serow, deer, bear, monkey, and wild cats are still common in local traditional medicine vendors. Ivory nowadays is very expensive while the elephant population is dwindling in the forests. Though there is some considerable level of consumption in the local markets, the loss of wildlife in Myanmar is largely due to the cross-border trade, as the demands and purchasing power are high in China and Thailand. There are trade routes to black markets which are invisible and located at the border towns. Turtles are particularly suffering this year and many species will be extinct in near future, unless effective measure can be taken to control the illegal wildlife trade activities in Myanmar.

Mong La, a remote town on the border of Myanmar and China, run by a Wa-Chinese warlord, is currently a visible wildlife market where a sheet of tiger skin costs as much as USD 1,500, a hide of leopard skin costs USD 750, the price of a clouded leopard skin can be USD 120. Live bears, macaques, cobras, monitor lizards and turtles are available as ingredients in the restaurants there. Many wild birds are displayed in cages. This exotic animal black market earns billions of US dollars a year. It is also known that many truck-loads of mud crabs, ells, mollusks, snakes and turtles are being transporting to China through the Musae-Ruilli pass almost everyday.

Burmese Star Tortoise cannot be found in the wild, only in the breeding farms and markets.

Different species of turtles are displayed in Mong La market to be sold.

Intensive timber extraction makes it easier for the hunters and poachers to have access to the deeper parts of the jungle. In Myanmar, there is an effective wildlife trade network which is possibly led by a few top traders from Yangon and Mandalay with their deputies engaged in local collection activities. Drug and warlords have also been involved in this business. Even though it is a CITES member, the Myanmar Government alone cannot stop the phenomenon; regional cooperation is needed for this issue.

Sources: Weekly Eleven News, 15 August and 24 October 2007

2. Can Biofuel Compete with Natural Gas?

In the first half of 2007, every day the front page of newspapers described one or two topics on jatropha plantations located in various townships in the country. Therefore it was noticeable that planting jatropha (a source for biofuel) is the Government's top priority and people started to believe that future energy needs could also be partly solved by biofuel. Now Jatropha curcus is everywhere in Myanmar with 700,000 hectares already planted. However people were wondering not only about the future prospect of biodiesel, but also the consequences of massive plantation of a single species across the country. There could be problems with allergy or an outbreak of insects.

Jatropha cultivation field in eastern Shan State, Myanmar

The government's TV propaganda programmes very often shows footage of vehicles driving with biodiesel produced from jatropha seeds. The state has a plan to grow 0.5 million acres of jatropha in each State and Division over a 3-year period, because it can be grown cheaply by farmers and they can easily mill the seeds themselves to produce oil in order to drive farm machineries, water pumps, generators, etc. especially when the country has so much marginal land. The Director General of the Myanmar Energy Planning Department said that the country hoped to have 2.8 million hectares of jatropha cultivation by the end of next year. Some business owners and engineering companies started to think seriously of planning for technology, research and investment in building biodiesel plants to process jatropha from its plantations across the country.

However, jatropha plantation did not appear in the news during the last part of the year. Technology related to handling, harvesting, storing, engine development and modification, as well as business models, are not widely known. Therefore, while Myanmar is rich in natural gas that it is currently exporting to improving countries, people tend to suspect that jatropha cultivation is not a real policy or astrology.

Sources: The Myanmar Times, 5-11 November 2007

3. The Need of Landscape Level Conservation: A Case of Rakhine Yoma Mountain Range

Rakhine Yoma is a series of hill ranges running from north to south as a southward extension of the Himalayas. The range has a length of 450 Km and width about 64 Km and an area size of about 20,720 Km^2 along the west coast of Myanmar, and is covered by semi-deciduous forests on the eastern flank and semi-evergreen forest on the western flank. The hills in the northern part are as high as 1,330 meters,

A challenge for conservation from the immense area of forest cover in Rakhine Yoma

while the southern ones are only about 330 meters high. The area is sparsely populated and contains some of the more extensive tracts of uninhabited land in mainland South East Asia. It is well known for its abundance of wildlife including big game and unknown flora and fauna which have enjoyed the rugged terrain of this wild ecosystem with its own nature for a long time in geological history. Actually this is a globally important landscape with various types of habitat supporting many endangered and endemic species including elephant, tiger, gibbon, critically endangered Arakan Forest Turtle (*Heosemys depressa*), as well as valuable birds and freshwater fish species in its short river systems.

Common threats are wildlife trade, timber cutting, slash and burn agriculture, fish-poisoning, extraction of orchids, medicinal and various types of edible plants. There are also the tangible problems of the possible intrusion of economic activities including more agricultural expansion, building of hydroelectric power dams, establishment of industrial zones, human settlement expansion along the plain of western bank of Irrawaddy River, increased logging, and extraction of bamboos for the huge demand of pulp factories. The future existence of this diversity-rich mountain range is in danger. The integrity and ability of this ecosystem normally servicing the people of five provinces of central and western Myanmar with an established elephant sanctuary is also in doubt, unless landscape level conservation action is taken immediately both by government and conservation organisations.

Sources: Myanmar Times (Burmese Version), 5-11 November 2007; Living Colour Magazine, December 2007

4. Conservation and Sustainable Development of Marine and Coastal Area is Highlighted in Myanmar

A seminar on Marine and Coastal Areas Conservation was held on 29 June 2007 at the International Business Center, Yangon. This seminar was organised by the government in cooperation with a corporate group. Participants are officials from the departments of fisheries, forestry, agriculture and tourism, as well as business owners and national experts from national NGOs, and university academicians.

Timber extraction in Rakhine Yoma area has been brutally aggressive in recent years.

Fishing community on the coast of Tavoy District, Tenanthary Division

The seminar aimed at introducing the idea of the need to conserve nature for the long-term sustainability of natural resources to the people of Myanmar. Papers were presented on the status of the marine environment on the Mergui Archipelago where an ASEAN Heritage marine park is located, as well as on mangrove forest conservation, species composition of shark and dolphin, and perspectives on the oceanic and atmospheric phenomena in coastal areas, etc. The Deputy Minister of Tourism presented his own work on Natural Environment: To Save and Serve Tourism, while delivering the opening remarks, as he himself is in charge of the Task Force No. 2 of the National Committee for Environmental Conservation which is newly formed and chaired by Ministry of Forestry. The discussion among the participants was frank, enthusiastic and open-minded. The essence here is to carry out conservation with inter-sectoral cooperation, inter-ministerial cooperation as well as with the participation of NGO, INGO, academia, business and local communities. This is the sign of improvement in undertaking the task of conservation in this country and encouragement from the authorities to exert efforts for this purpose. This seminar was followed up by a workshop conducted on 12 - 13 September 2007 in Yangon to devise an action plan for sustainable development and conservation of coastal areas in Myanmar. Though there is light at the end of the tunnel, conservationists worry about the recovering capacity of marine ecosystems, since there is evidence of severe depletion of coral reefs, absence of marine turtles, disappearing of marine mammals, and the apparent decline of both coastal and offshore fish catches in Myanmar's waters, while gas exploration and extraction are expanding along the coast of Myanmar due to the attraction of export earning.

Source: The New Light of Myanmar (Burmese Version), 30 June 2007

5. Massive Construction of Dams on the River Systems across the Country

Though Myanmar has ample amounts of freshwater due to the huge rivers running across its territory, the government has targeted these extensive river systems to produce large-scale electricity by implementing its 30-Year Hydroelectric Power Strategic Plan. Now many dams are being constructed on main rivers and their tributaries throughout the country, with both large and small scale hydropower projects considered as priority national development tasks. The construction of large dams such as Tasang (1,200 MW) on the Salween River, Htamanthi (1,200 MW) on the Chindwin River, and Myitsone Project (including two dams with total capacity of 3,600 MW) on upper Irrawaddy has already started.

In 2007, most of the front pages of daily newspapers described the highest authorities' inspection and visit of dam construction sites. Very recently, on 12 December 2007, Senior General Than Shwe, Head of the Government, visited Yeywa Hydropower Project (790 MW) built on Dodhtawaddy River with technical assistance from Colenco Engineering Co., Ltd., Switzerland. This dam construction will be completed in 2009-2010 as world's third largest in RCC Volume and the fifth in terms of height.

The consequences of such massive infrastructure development are worrisome, as

Kun Hydropower Dam Construction Site in the Pegu Yoma Mountain Range

EIA apparently lacks practice of project implementation. Many original fauna, flora and habitats will have disappeared. Serious concerns have been raised about the well-being of the local residents near Tasang and Htaminthi projects, as each dam would mean flooding of the gorge for 230 km upstream. This would mean uncertain livelihoods due to relocation. Myitsone hydro-project can cause the sinking of 5,000 houses from 30 villages, making 8,000 people home-less, and causing 18,000 acres of arable land and forests to be submerged. It would also cause the destruction of the Mali-M'mai confluence, the Kachin cultural heart land. Tenanthary dam which is planned to be built on Tenasserim River will diminish the quality of ADB's priority biodiversity corridor. Meanwhile, timber companies are benefiting by gaining concessions to extract timber from the forested areas of dam-sites.

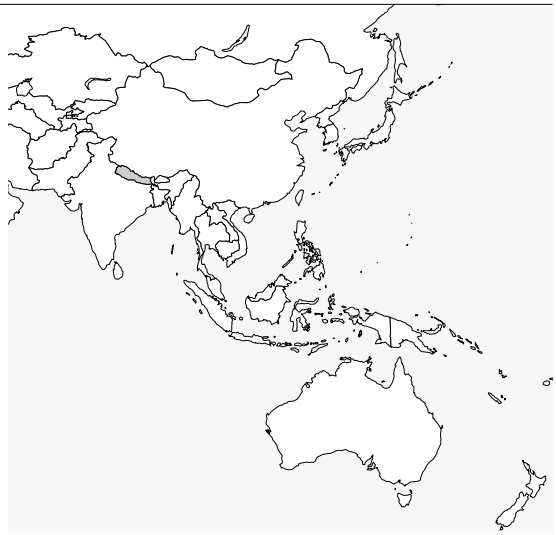
China is the leading country to invest in Myanmar's hydropower projects. Yunan United Power Co. Ltd. is also cooperating to finish the Shweli (Ruilli) Hydropower Project. India has granted Myanmar a USD 60 million loan to help construct the Thahtay Chaung Hydropower Project (100 MW) in Rakhine State. Korea Electric Power Corporation (KEPCO) has helped Myanmar since 2001. Many construction engineers at the project sites are Japan-trained. Thailand invested in 2005-2006. Bangladesh is preparing to invest in Hydropower Sector of Myanmar too.

Government spoke of the need to complete the projects systematically as soon as possible. However there is still a lack of data and information about the impact of the dams.

Sources: Weekly Eleven, 10 January, 7 February, 4 July 2007; Bangkok Post, 6 September 2007; New Light of Myanmar, 13 December 2007

Nepal

Phool Chandra Shrestha
Freelance Consultant



1. Bird Species Face Extinction Threat

The fragile bio-diversity of the country is witnessing further threat with a decreased number of birds. According to a recent study by Bird Conservation Nepal, the population of about two-thirds of the bird species in the country has declined. A total of 862 bird species have been recorded in Nepal so far. Of the 862 bird species in the country, 31 bird species are rated as globally threatened according to a list by the World Conservation Union.

Habitat loss and damage is a major threat faced by 89 percent of birds in the country. Similarly, increased illegal hunting and disturbance by increased human population has adversely affected bird population.

Wetland species of birds are under a wide range of threats due to the disappearance of wetlands. Wetlands are among the most productive environments for the breeding of bird species, including kingfishers and water ducks. The number of water birds has dropped sharply at the internationally important wetland of Koshi Tappu Wildlife Reserve and Koshi Barrage. Similarly, sharp decreases in wetland birds have also been recorded in the rivers, streams, lakes and ponds of Chitwan National Park.

Source: The Kathmandu Post, 23 August 2007

2. Thimi Folk Show Way Out of Pollution

Suga Waste Water Treatment Plant at Madhyapur Thimi has proved to be a good model for the treatment of wastewater generated from the community within the community, and for keeping the rivers clean.

The community water treatment plant, constructed recently with the initiation of locals in Suga Tole with technical assistance from the Environment and Public Health Organization (ENPHO) and financial assistance from Water Aid of the UNHABITAT, is treating the wastewater generated from 100 buildings, including houses, a school and carpet factories.

The plant, the first community water treatment plant in the country, treats almost 50 cubic metres of water every day. The plant removes almost 95 percent of harmful pollutants like BOD (biological oxygen demand), COD (chemical oxygen demand) and TSP (total suspended particles) from wastewater before it is emptied into the Siddhi Kali river and ultimately into the Hanumante river. According to the ENPHO, the treated water is equal to the national standard of wastewater, meaning it can be drained into natural source of water. The treatment plant not just removes physical, chemical and biological contamination, but also the bad odour that spoils the whole surrounding environment.

Source: The Himalayan, 11 September 2007

3. INGOs Plan Bengal Tiger Census in Nepal

Various international non-government organisations are making plans to carry out a census of Bengal tigers (Panther tigers) in Nepal's national parks. Recent studies have put the number of the wild cats in Nepal at about 350 to 375.

A tiger survey has been initiated in the Bardia National Park with a focus on the Babai river floodplain. A team of seven park personnel will start monitoring from the Chepang area, the gateway of the Babai, according to the last updated draft of the tiger count plan. This is the first time the WWF is initiating such a survey and will be updating information on the tiger population. The past five years of insurgency and human threat have had a marked impact on the shrinkage of tiger habitat in Nepal.

Currently, three isolated areas in Nepal remain as tiger habitats. Chitwan occupies the largest area where 75 percent of the tigers are within protected areas. The other two populations are those in Bardia and Shuklaphanta. A $1 million revised action plan to conserve tigers and their habitat is at the final stage of drafting. It will consolidate various programmes on tigers for the coming five years.

Source: The Himalayan, 31 January 2007

4. Kathmandu's Air Pollution Posing Severe Health Risk

Public health in the Kathmandu valley is under unprecedented risks as its air pollution, largely caused by smoke and dust particles emitted by vehicles, has crossed national and international safety limits. Environmental experts warn of severe health impacts unless appropriate preventive steps are taken to improve air quality. "The health impacts of Kathmandu's air pollution can be quite severe", says a report prepared by the United Nations Environment Programme, International Centre for Integrated Mountain Development and the Ministry of Environment, Science and Technology.

Exposure to air pollutants can break down the natural defence mechanism in the body leading to breathing related disease such as lung cancer, asthma, chronic bronchitis and emphysema. Emphysema is a condition in which the small bags in the lungs become filled with too much air, causing breathing difficulties and heart problems. Scientific studies have probed that air pollution can also adversely affect the cardiovascular system and central nervous system.

The report entitled "Kathmandu Valley Environment Outlook" holds vehicular emission as chiefly responsible for degrading the air quality of the capital valley. The problem is getting more severe over the years as the number of automobiles keeps growing with 56 percent of the country's vehicles being registered in Bagmati zone, most of which operate within the Kathmandu Valley.

Source: The Rising Nepal, 5 February 2007

5. Glaciers Melting on Himalayan Scale

Himalayan glaciers are retreating fast and could disappear within the next 50 years, experts warned today at a conference here looking at the regional effects of global warming.

The melting ice fields have also caused a dramatic increase in the number and size of glacial lakes that now risk bursting and devastating mountain communities. "If temperatures continue to rise as it is, then there will be no snow and ice in the Himalayas in 50 years time" said Surendra Shrestha, the Regional Director of the United Nations

Environment Programme.

Temperatures in the region have been increasing by between 0.15 and 0.6 degrees Celsius per decade for the last 30 years. The Imja Glacier just south of Mount Everest has been retreating at a rate of about 70 metres per year, with the water forming huge glacial lakes. In the 1950s about 12 glacial lakes were recorded in Nepal. When the inventory was done in 2000 there were 2,400 lakes in Nepal. Out of these, lakes that are about to burst are about 14.

Source: The Himalayan, 5 June 2007

New Zealand

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1. Carbon Credits Traded On-line

In September, New Zealanders got the chance to bid on voluntary carbon credits sold by Meridian Energy through Trademe. Meridian Energy is New Zealand's first accredited 100% carbon neutral energy supplier, while Trademe is New Zealand's biggest online auction website.

Three sets of carbon credits were auctioned: 2 "household" sets (with an equivalent of 20 tCO2) and 1 "business" set (with an equivalent of 1,000 tCO2). After a weeklong bidding session, the small parcels sold for NZ$3,000 and NZ$2,010 (US$120 and US$80 per tCO2), while the big parcel sold for $19,262 (US$15 per tCO2).

The experiment generated huge public interest: 35,000 website hits, more than 300 bids and hundreds of online questions which were all answered by Meridian. The questions reflected the wide range of opinions New Zealanders had about the auction - from "trading hot air" and "selling credits twice" to "excellent opportunity to offset your own emissions".

These first sales were kind of "trophy" sales, being the first voluntary credits on the New Zealand market. So despite one of the original objectives being price discovery, it should not be assumed that this is setting the future price of carbon credits.

The proceeds of the household set are donated to Project Crimson — a project that restores native plantings (which will act as a carbon sink). The proceeds of the business sale go back into the Te Apiti wind farm (from which the credits originated).

Next year the New Zealand stock exchange is launching a carbon exchange, TZ1, to link with the fast growing international carbon market.

sources:
http://www.meridianenergy.co.nz/AboutUs/News/NewZealanderswanttobuyvoluntarycarboncredits.htm
http://www.tz1market.com/news.html

Te Apiti Wind Farm near Palmerston North, North Island
Source: Meridian Energy

2. New Initiative on Biochar Launched

The New Zealand Government is working to address climate change and has created a website devoted to climate change solutions (http://www.climatechange.govt.nz/index.shtml). A focus of the government is sustainable land management and action plans. One of the more promising initiatives involves a $10 million government investment in research and subsequent commercialisation of biochar technology. Early in 2008, two new Professorships will be announced at one of New Zealand's leading universities to promote research in biochar with the goal being widespread distribution of the product across New Zealand's agricultural landscapes.

Biochar sequestration not only keeps carbon dioxide from reaching the atmosphere, it can actually extract it and contribute to the goal of reducing atmospheric concentrations. Instead of being "carbon neutral," the storage of biochar in soil is being considered as "carbon negative." By sequestering and holding carbon in the soil, as well as absorbing otherwise mobile leachates from intensive agricultural activities, biochar could be a valuable weapon in the agricultural industry's arsenal for improving environmental amenities and further protecting New Zealand's rivers and lakes.

Source:
http://www.biochar-international.org/policyinnewzealand.html

3. Environmental Performance Review

This report examines progress made by New Zealand since the previous OECD Environmental Performance Review (1996) relative to its established domestic objectives and international commitments regarding the environment and sustainable development. It also reviews progress in the context of the OECD Environmental Strategy, and compared to the recommendations of the previous OECD review.

Some findings include: energy intensity is now about equal to the OECD average, having fallen by 18% during the review period; while the intensity of water, fertiliser and pesticide use remains on the low side for OECD countries, the review period saw significant increases, with consequent growth in pressures on the environment. The authors of this report suggest that New Zealand should strengthen national policy guidance, in the form of policy statements and national environmental standards and further integrate environmental concerns into economic and sectoral decisions.

Extensive examination is provided on environmental management, water, waste, nature and biodiversity, agriculture, forestry and the environment and international cooperation. Recommendations for change are included in the report.

Source:
http://www.oecd.org/document/10/0,2340,en_2649_34307_37915274_1_1_1_1,00.html

4. Department of Conservation Expands Land Under its Control

Some interest groups are becoming concerned by the growth in the size of the conservation estate, which critics are labelling a "land grab". Conservationists counter that conservation land is a key lure for overseas tourists, while also protecting biodiversity and endangered species. The Department of Conservation manages 42% of the South Island, up from 39% in 2003, and 17% of the North Island, down 1% on 2003. This translates into 31% of the land mass of the two main islands, an increase of 1% since 2003. There have been calls made to open a national debate on how best to manage the land. While the conservation estate grows, the battle to

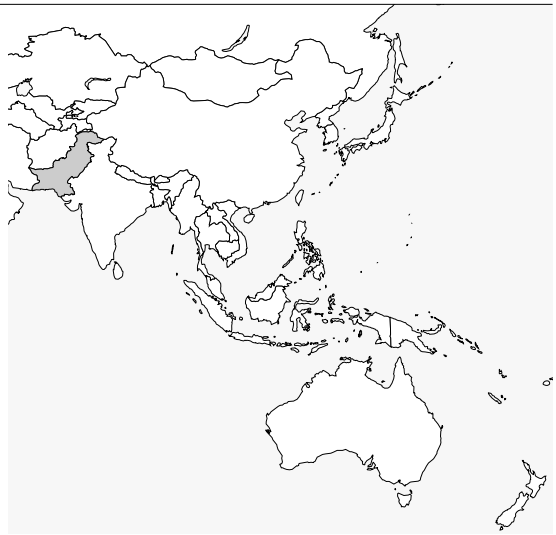
stem the erosion of genetic resources for some of New Zealand's iconic flora and fauna is becoming more difficult as was reported in the Department of Conservation's Annual Report. The kiwi and yellowhead are two species that are especially troubling. There has yet to be a definitive study of how much land is enough in terms of conservation; in fact, the questions have not even been posed in terms of what amount is required for the Department to fulfil its mandate.

Source:
http://www.nzherald.co.nz/category/story.cfm?c_id=39&objectid=10475890

Kiwi ***(Apteryx australis mantelli)***
Source: Pukaha Mount Bruce, New Zealand

Pakistan

Mushtaq Ahmed Memon
Programme Officer
UNEP-DTIE-IETC



1. World Bank Launches Environmental Assessment Report

A new World Bank report, released in September 2007, highlights that environmental degradation is threatening to undermine Pakistan's growth prospects. According to the study - Pakistan Strategic Environmental Assessment - the continuous degradation of natural resource-base and increasing incidence of diseases are costing Pakistan at least 6% of GDP or about PKR 365 billion (US$ 6 billion) annually.

Children are at worst risk due to pollution *(Photo by author)*

The report attributes nearly 50 percent of the environmental damage cost to illness and premature mortality caused by indoor and outdoor air pollution. Indoor air pollution alone is the reason for 30,000 child deaths per year. Around one-third of the cost, or 1.8% of GDP, is due to death and illness resulting from waterborne diseases caused by inadequate water supply, sanitation, and hygiene. In addition, reduced agricultural productivity due to soil salinity and erosion accounts for about 20% of the cost.

The report puts Pakistan as the most urbanised country of South Asia, with more than one-third of the population living in towns and cities. Hence they are exposed to urban and industrial pollution. In all major cities, airborne particulate matter exceeds safe levels and causes some 22,700 deaths annually.

The report appreciates that since adopting the National Conservation Strategy (NCS) in 1992, the Government of Pakistan has made considerable progress in raising public awareness of environmental issues, and establishing a framework for environmental management. The National Environmental Action Plan was approved by the Government in early 2001, and a new and far-reaching National Environmental Policy (NEP) was adopted in 2005, accompanied by a significant increase in the budget allocated for environmental management.

The report calls for building partnerships between federal, provincial and municipal authorities for clean air, and to define responsibilities for water quality protection. The report also recommends the creation of incentive-based partnerships between federal and provincial environmental protection agencies, with resources being provided based

on performance in meeting NEP goals, and accountability ensured through annual public reporting of progress in achieving NEP targets.

Source: The World Bank Press Release on 3 September 2007

2. Making Efforts to Reduce Vehicle Emissions

There has been a rapid increase in the number of vehicles - from 2,951,600 in 1992 to 6,048,300 in 2005. This is affecting local air quality in major cities as the biggest increase in the automobile sector is seen in two-stroke vehicles and diesel-powered goods lorries which are among the most polluting.

To avert the situation, the government is promoting the use of compressed natural gas (CNG) to reduce pollution caused by vehicles and to improve the air quality. Medium Term Development Framework (MTDF) has set target to increase CNG use in transport sector from 21,000 million cubic feet per annum in 2004 to 33,900 million cubic feet per annum in 2010.

One advantage of the rising petrol prices has been an increase in the demand of CNG cars, and the country has witnessed massive conversion of gasoline (petrol) cars to CNG, especially in the last two to three years. By the end of April 2006, about one million vehicles had been converted on CNG. As of May 2006 some 930 CNG stations were operational in the country while another 200 are under construction. With these developments, Pakistan has become the leading country in Asia and the third largest user of CNG in the world, after Argentina and Brazil.

Source: Daily Dawn 12 March 2007

3. Making Karachi a Clean City - Solid Waste Management for Karachi

Karachi, the biggest city of Pakistan with population around 10 million, faces major environmental challenges including rapidly increasing levels of solid waste generation. To keep Karachi clean, City District Government Karachi (CDGK) has signed an agreement with a Chinese firm for a Integrated Municipal Solid Waste & Hospital Hazardous Waste Management Project. A signing ceremony in this connection was held on Sunday at a local hotel where the Letter of Intent (LoI) was issued to Shanghai Shen Gong Environmental Protection Company Limited.

Under the agreement, the company will lift and transfer garbage in Karachi to a landfill site at a rate of $20 per tonne for the next 20 years. The Chinese firm will take the responsibility of lifting of garbage on a door-to-door basis in Karachi and shifting it to a landfill site through proper and secured transportation while it would also arrange for lifting and disposal of hospital hazards and other chemical waste on scientific methods to avoid any danger to the environment. Also under the agreement, the company would perform its duty without raising its rates for the next 20 years.

A city official mentioned that Rs3 billion were being spent annually on the city's solid waste disposal. "Around 8,000 tons of solid waste is generated every day," "the estimated amount

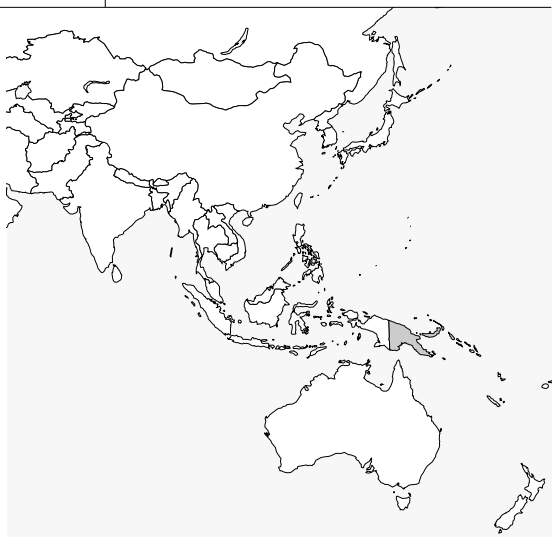
Plans to turn Karachi, a Clean City! *(Photo by author)*

to be paid to the Chinese firm for its disposal will come up to around Rs3.4 billion per annum." He said the city government would get 15 per cent of the revenues to be generated by the Chinese firm through recycling of the waste. Besides, the city government would also get 15 per cent share in the firm's income from the waste-based energy project

Source: Daily The News, Daily Dawn 12 November 2007

Papua New Guinea

Naus Kamal
Information Manager
Papua New Guinea Eco-Forestry Forum (PNGEFF)



1. PNG Forestry Sector below Standards, ITTO

Papua New Guinea's controversial forestry sector came under fire during the 42nd International Tropical Timber Organization's (ITTO) council meeting in May 2007.

The International Tropical Timber Organization criticized PNG's forestry sector as being poorly managed and below standards. This comment was in addition to the continuous criticism over the affairs of the sector from both local and international groups.

This time it was from an international forestry governing body and that added more scrutiny on the already badly tainted forestry sector of the country. The sector has been continuously put under the spotlight for alleged malpractices amounting to gross human rights abuses, unsustainable logging and violation of established laws and best standard practices.

In a report tabled at this ITTC meeting in Port Moresby, the alleged irregularities and poor management of the forestry sector, which had continuously been a public concern, was further raised and put to the government to improve its performance. The report, prepared by ITTC diagnostic mission which was dispatched for a fact-finding mission before the actual meeting, highlighted inconsistencies within the sector in terms of forest concession allocation processes, monitoring and compliance with set rules and regulations.

The report stated that there is a major problem in PNG in determining maximum logging levels and the appropriate characteristics of stands to be logged in the context of sustainability of the forests. However, the more significant issues are to do with the compliance of the government itself with the laws of PNG when deciding to designate a forested area for logging purposes; negotiating the agreement with landowners; managing, monitoring and enforcing the agreement, and when extending current agreements.

It further stated that the narrow focus of the PNG Forest Authority on exploitation of the forest resource for primary financial benefit of the national government presents a conflict of interest which influences decisions made by the government at all levels. It also pointed out that the National Forest Board has also, on occasions, taken decision without the due process procedures required in the Forestry Act 1991. This was pointed out as being the case in at least one significant extension of a FMA (Forest Management Agreement) which is more than double the size of the FMA.

Interestingly, the findings of this report contradicted Prime Minister Sir Michael Somare's assurance in his opening remarks to the ITTO council that his government has improved its management of the sector.

The findings of the report are not new, as similar observations were also made in other previous government sanctioned reviews which

Prime Minister Sir Michael Somare (standing far left) addressing the 42nd ITTC meeting in Port Moresby, PNG *(photo by Naus Kamal)*

included that of Former PNG Judge Tos Barnett, the Ombudsman Commission, and Forest Trends. In these reports and from many other independent review reports, recommendations were also made on appropriate measures to be taken to improve the sector. However, to date, the government has never implemented them and has allegedly continued to down-play the findings.

The ITTC report also gave prominence to the efforts of civil society groups in the country for promoting good governance in the sector. It mentioned that an admirable number of local NGOs are very active in PNG, especially as related to monitoring logging operations, close scrutiny of trade in illegally-sourced timber and in working with landowners at the grassroots level.

2. Landowners Question Government's Proposed Agro-Forestry Projects

The National government's proposal for the development of large scale agro-forestry projects in the country has not been well received by landowners.

The projects which are to be developed inline with the government's much publicised '*Economic Recovery Policy*' has been described by customary landowners within the six proposed areas in the country as nothing but an initiative to better the government's own interests.

The development of the proposed projects will involve clearing up of huge areas of original natural forest to allow for large scale palm-oil plantations.

Landowners are questioning the government's motive behind pushing for these projects as they fear it will have adverse environmental and social repercussions for the forest dwelling communities.

There are already negative social and environmental impacts being encountered in other areas of the country that have already established agro-forestry projects and so the landowners fear being faced with a similar situation.

Since it first went into office in 2002, the Somare-led government has, among other things, given high priority on its agenda to the development of the country's natural resources and to the creation of revenue to rejuvenate Papua New Guinea's debt ridden economy.

While much of its concentration has been in large scale natural resource exploitation projects such as logging, mining and oil and gas extraction activities to bring in much needed revenue for the country, it has also been continuously criticised for being environmentally ignorant and irresponsible.

Water pollution and scarcity of available land for fishing, hunting and for other traditional use are among some of the dilemmas that are already being experienced in those areas that have already allowed the establishment of agro-forestry activities.

Chemical wastes from fertilisers used on palm oil plantations are being washed into rivers and streams which pose health risks for local communities. In addition, clearing up of massive amounts of forests for palm oil plantations also makes local communities vulnerable to natural disasters such as cyclone, earthquakes and landslides as forests normally serve as natural buffers against such calamities.

There are also concerns that palm oil plantation developments also attract an

uncontrolled influx of people from other parts of the country into nearby local communities. There have been reports of these people engaging in other illegal activities.

About 95 per cent of the total land area in PNG is customarily owned by the people while only about 5 per cent is state-owned — primarily acquired for development purposes. And with the land tenure system as such, the customary landowners are still recognised as major stakeholders in the development of any large scale economic activities on their land.

In August 2007, land owners from the six newly proposed Agro-Forestry project areas around the country raised concerns that they were in the dark and had demanded the National Government to explain to them the process it took to initiate the projects.

The six proposed projects include the *Collingwood Bay* and *Musa Pongani Agro-forestry Projects* (Oro Province), *Baina Agro-forestry Project* (Central Province), *Aitape Agro-forestry Project* (Sandaun Province), and the *Illi-Wawas* and *Toriu Headwaters Agro-forestry Projects* (East New Britain).

Landowners claimed that the government went ahead with the projects without any proper consultation process. Their concerns were raised through a joint media conference in August where they said the National Government was trying to fast track the projects without their knowledge.

In their address to the media, the landowners called on the National Government to let them know about the process involved and the steps it had taken so far in the development of the proposed projects.

They claimed they are the resource owners and have every right to know what the government plans to do with these projects. They said they cannot be kept in the dark as whatever project happens on their land will always affect their lives because they live on the land.

3. Loan Facility Launched — Boost for Eco-Forestry in PNG

Eco-forestry in PNG was given a boost with the launch of a loan facility with PNG Microfinance in July 2007 at the Walindi Nature Centre, Kimbe, West New Britain Province. The loan facility will now be available for sawmilling enterprises and timber yards which are members of the FORCERT Group Certification Service Network, a locally established network group.

FORCERT, short for Forest Management & Product Certification Service, is a PNG-based not-for-profit service company that promotes sustainable forest management. It is owned by its members, which are village based eco-forestry enterprises and locally owned central timber yards. FORCERT uses Forest Stewardship Council (FSC) and Fair Trade certification as a management, marketing and networking tool.

The FSC certification guarantees the forests of its village producer members are well managed and the Fair Trade certification guarantees these producers get the best possible price for their products. The two internationally recognised certificates help FORCERT to find special, so-called niche markets at high prices for a wide range of timber species; at present they have orders for 18 different timber species.

FORCERT assists with the establishment and development of community based eco-forestry enterprises and facilitates in getting so-called service and production agreements in place between its central timber yard and village producer members. In this way portable village sawmilling businesses bring together their limited individual timber supplies to central timber yards and the output of these various yards is then again combined to supply overseas markets.

Through its service network FORCERT offers a wide range of support services to its members; market development and brokering

for a wide range of timber species, sawmilling & timber quality control training and business development training and extension support.

As part of its support service, FORCERT has entered into an arrangement with PNG Microfinance, a local commercial bank, who will help its members with starting and investment capital.

During the launch, FORCERT's Business Development Officer, Leo Angkuru, said that getting financing through normal commercial channels in PNG is very difficult if not impossible for starting village businesses. He said the organisation is very pleased to be able to offer this loan facility service to its members. They get very favourable conditions, like only having to put 10% of the loan amount in a savings account with PNG Microfinance first, and then get 100% finance at 10% fixed interest with a 3-year repayment time.

PNG Microfinance services are aimed especially at the grassroots people in PNG particularly those involved in microfinance, small and medium business enterprises.

The Managing Director of PNG Microfinance, Mr Paul Thornton said that the mission of PNG Microfinance is to inspire broader economic participation, financial independence and social prosperity. He said the introduction of this loan facility will assist land owners certified with FORCERT participate in the economic development of Papua New Guinea. It will allow them to receive a fair price for their resource and will ensure that the resource is managed in a sustainable manner. He further told FORCERT members that the he is confident that the facility will make a difference to the lives of those land owners participating with FORCERT. Mr. Thornton said the bank will look forward to a long and mutually rewarding partnership with FORCERT and its members.

Portable sawmill set-up site in the jungle. The set-up as such produces sustainable eco-timber for the local people.
©FORCERT

With this loan facility, the FORCERT village producer and timber yard members will be able to get loans for sawmilling and wood processing equipment and timber transportation means like water buffalo's with trailers, motorised dugout canoes, tractors and trucks.

To be eligible for the loan facility, FORCERT members have to meet a number of criteria, to be assessed first by FORCERT, after which PNG Microfinance takes over with their normal loan application procedures.

The provinces in PNG which FORCERT currently works in include; Autonomous Region of Bougainville, New Ireland Province, East New Britain, West New Britain, Morobe, Madang and Aitape.

For more information, contact FORCERT on: forcert@global.net.pg

4. Local NGO Awarded FSC Indigenous Community Forest Group Certificate

The Foundation for People and Community Development (FPCD) was awarded an internationally acclaimed certificate for good forest management practice in May 2007.

The award was given by the Forest Stewardship Council (FSC), an internationally recognised body that certifies forest management initiatives that employ best standard principles and criteria pertaining to sustainable use and management of forest resources.

With the award, FPCD will now be among a very few organisations in PNG that are now

certified under FSC international standard.

The award is a boost to the work of those individuals, community groups and organisations that continue to put their efforts into promoting sustainable community forestry practice which is opposed to large scale and unsustainable logging.

FPCD is a locally established not-for-profit NGO in PNG that works with the local communities on different fronts. One of its core focused areas is the Indigenous Community Forestry (ICF) initiative through which it assists local community groups with forest resources to tap into integrated sustainable eco-forestry activities.

With its ICF program, FPCD is now working with forest community groups in Madang province.

It took over 2 years for FPCD to go through the FSC certification process before it finally got certified. Its work was evaluated based on the quality and standard of its ICF programme with the Madang forest resource owners based on FSC principles and criteria. In the evaluation, its efforts were assessed by an independent evaluator dispatched by FSC. It began with a preliminary evaluation in 2005 followed by a full evaluation in 2006 and finally got certified in May 2007.

FPCD's involvement with forest communities in Madang has been going on for over 10 years and has seen many successful developments. Among them is the successful establishment of a community forest resource owners group in the province called the Madang Forest Resource Owners Association (MFROA). FPCD continues to provide MFROA members with much-needed technical support in the management of their ICF initiative. This covers areas such as land use planning, mapping, surveying, log harvesting and timber processing, and marketing activities.

Another milestone achievement of MFROA through the ICF establishment is its ability to secure markets for its sawn timber products internationally with the assistance of FPCD. Through this arrangement, the forest resource owners are able to export their sawn timber products overseas at a better price while the surplus is also used for building homes and to meet other community needs.

The Philippines

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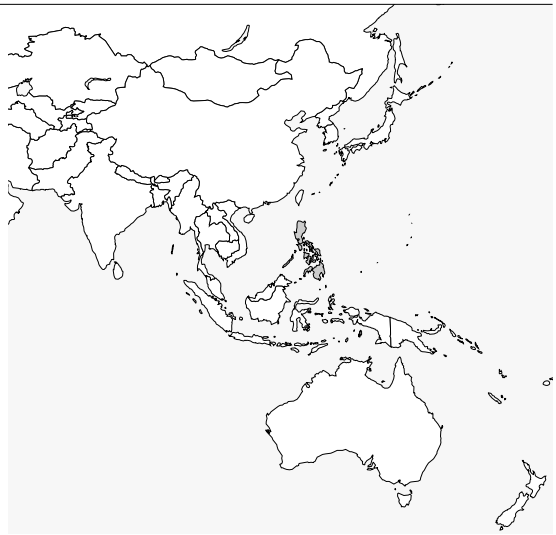
University of the Philippines



1. Waste-to-Energy Operation to be Launched

Claiming to be the biggest of its kind in Asia, the methane recovery and electricity generation project was scheduled to be launched in early December 2007 by the Montalban Methane Power Corporation. The major stockholders of the corporation include the provincial government of Rizal, with the United Kingdom as the largest investor. The first in the country, the garbage-to-methane power plant is located in the municipality of E. Rodriguez in Rizal province. It has also been described as the second largest worldwide.

Mayor Pedro Cuerpo of E. Rodriguez town explained in a press briefing that the power plant is expected to generate 15 megawatts of electricity from methane, a flammable gas derived from decaying waste. "For the first time in Philippine history, a garbage landfill will be a major player among independent power producers and a model for pollution-reduction development projects in Asia", Cuerpo said. The raw materials for the plant are to be drawn from the main garbage dump of Metropolitan Manila, which is estimated to have the potential of 10 million tonnes. Mayor Cuerpo claimed that the project would produce electricity enough for 15,000 households in his town with the added benefit of the municipal government sharing in the revenues from the plant operation.

Source: Philippine Star, 8 June 2007; Philippine Star, 21 November 2007.

2. World Bank Study: Nearly 5,000 Deaths in Manila

A study commissioned by the World Bank has found that nearly 5,000 premature deaths are reported every year on account of respiratory and cardiovascular diseases attributed to exposure to poor air quality or "outdoor air pollution". The study points out that this amounts to 12% of all deaths in Metro Manila, which is the highest of any city in the country. Throughout the country, air pollution is estimated to account for over 4% of all deaths.

Citing the latest data from the Department of Environment and Natural Resources (DENR), the World Bank study indicates the number of deaths in other Philippine cities due to air pollution, as follows: Metro Cebu, 608; Davao City, 414; Zamboanga City, 240; Iloilo City, 204; Cabanatuan City, 134; General Santos city, 117; Baguio City, 102, and Butuan City, 104.

"Eighteen million people live in cities that exceed DENR standards, and Metro Manila, with its large population and high air pollution levels, has the largest health burden from air pollution with motor vehicles and utility vehicles being the greatest culprits", said Rahul Raturi, sector manager for environment and rural development of the World Bank.

Medical treatment of diseases due to air pollution is estimated in this study at the cost of about PHP962 million each year and loss of annual income because of air pollution at PHP6.7 billion.

These findings of the study are reported in the World Bank's Philippine Environment Monitor 2006 on Environmental Health, which was launched on 4 September .

Source: World Bank, Philippine Environmental Monitor 2006; Philippine Star, 5 September 2007.

3. New Law Requires Oil Pollution Compensation

In response to the worst oil spill in the country's history last year in Guimaras Strait, the Oil Pollution Compensation Act of 2007 became law on 4 June. It provides for the creation of the Oil Pollution Management Fund to cover the cost of containment and cleaning-up operations of oil spills and compensation for the resulting damages. The new law requires persons or firms transporting more than 150,000 tonnes oil by sea annually to contribute to the Fund. In the event of oil spill, the containment and cleaning-up operations shall be the responsibility of the Philippine Coast Guard.

Source: Files in the Office of the Senate President, Senate, Republic of the Philippines; Philippine Star, 3 June 2007; Daily Tribune, 5 June 2007.

4. National Science Global Warming Action Plan

On April 30 this year, the Department of Science and Technology (DOST) announced in a press conference a comprehensive National Science Intervention Plan as the programme of action of the country's scientific community addressed to the adverse effects of global warming. DOST Secretary Estrella Alabastro explained that the Plan would serve as an immediate and long-term guide primarily for policy-makers to develop strategies based on assessment of the country's vulnerability to climate change.

DOST's action plan assigns a major role to the Philippine Atmospheric Geophysical Astronomical Services Administration (PAGASA) as the front-line science agency. PAGASA is acquiring a network of new, state-of-the art meteorological satellite facilities to enhance its competence for geohazard mapping, data gathering and research focused on climate change. The technological resources of the scientific councils under DOTC are to be mobilised in response to the challenges of climate change. Among these are the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) and the Council for Aquatic Marine Resource Development (PCAMRD). PCARRD has adopted an R & D programme for biofuel and other alternative environment-friendly fuels. PCAMRD is on intensive research on the impact of global warming on Philippine fishery resources.

Source: Business Mirror, 1 May 2007.

5. Philippines is Site for Toyota Reforestation Project

Toyota, Japan's auto giant, has selected the Philippines as the site of its social responsibility project, the reforestation of some 2,500 hectares of the Peñablanca Protected Landscape and Seaside located in Cagayan Valley in Tuguegarao province. Toyota's first project was in China. In its second project, India and Indonesia were seriously considered as prospects before deciding in favour of the Philippines.

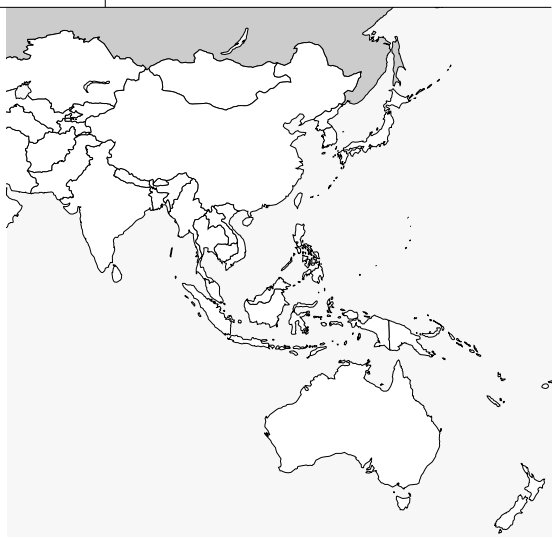
In a press briefing on 14 September this year, Rommel Gutierez, vice president of Toyota Motor Philippines Corporation (TMPC), said that the Peñablanca project would be undertaken

with the Department of Environment and Natural Resources (DENR). The site was selected on the recommendation of Conservation International, an environmental advocacy group. The project, according to Gutierez, carries a grant of US$3 million to the Philippines for the restoration of Peñablanca in a period of three years, with a plan for an extension of another three years for the second phase.

Source: Daily Tribune, 15 September 2007.

Russian Federation

Anatoly Lebedev
Bureau for Regional Outreach Campaigns (BROC)



1. Attack by Fascists on the Anti-Nuclear Camp in Angarsk Became Criminal Murder Case

After the appointment of Serguei Kirienko to his position as the Nuclear Energy Minister in 2006, a series of scandalous and ambiguous programmes became the matter of broad public discussion. First, the minister presented to the government his programme on the creation about 20 floating nuclear power stations, which already had met with strong public protests in Chukotka, Kamchatka and Murmansk oblasts. The Programme was also harshly criticised by the other ministers for its weak economic justification. Then another strategy for Nuclear energy expansion all over Russia became the target of a series of attacks from the environmental community as not being coordinated with another state document, namely the Energy Strategy and Plan to use Hydro energy of the South Sakha (Yakutia). Obviously, each of these strategies was an object of criticism, but the nuclear one this summer became the object of the most serious attention after events in Angarsk city near the World Heritage site of Baikal area. There was a big protesting camp against the development of nuclear fuel and Petro-chemical waste processing facility which involved many environmental and civil groups. The camp was attacked in July by a gang of fascists. One activist from Nakhodka was murdered and many more were injured The law enforcement system and officials did their best to block a criminal case brought against the gangsters, which were reportedly backed by the nuclear lobby in the region.

Source: BROC, Greenpeace, Baikal Environmental Wave

2. Siberian Rivers under Pressure from Chinese Water and Energy Demands

In the framework of 2007 as 'Year' of China in Russia, a series of major construction and investment projects on Siberian rivers was announced. Most of them are targeted as plans to compensate increasing lack of fresh water and energy in China. Initially Chinese strategists, with their Russian allies, tried to reanimate the old Chino-Soviet project of a system of dams on the Amur river — the border of the two countries. Although the Russian government tried to hide this project, jeopardising a group of protected, agricultural and sacred indigenous lands, many experts found it environmentally dangerous and economically wrong. It was clear that even prospective Siberian industry would never need that much energy, but China may thus get it with no environmental impacts on its territory. The key problem was that Amur dams meant

loss of lands on the Russian riverside only. Deciding to stop development of this project due to public pressure, Russia immediately encountered another one — Chinese plans to turn about two-thirds of the Argun river flow back inland into China from Amur for local use. Russia does not have enough international means to influence this project, so the problem of Amur water loss remains serious. Finally, the Russian energy monopoly created its own strategy of dam construction in East Siberia, which will submerge huge areas of indigenous forests and hundreds of settlements and turn them into vast lakes to create an energy supply to China.

Source: BROC, Greenpeace

3. Construction of Trans-Siberian Pipeline Started with Many Violations

An oil pipeline in the Siberia-Pacific region is being constructed at an urgent speed by an army of workers, with almost no local community members. Promising initially to bring jobs to the unemployed in Siberian towns, "Transneft" company brought workers from European Russia and China. However Russians were deceived about their salaries and have been organising strikes in their temporary villages because of bad working conditions, lack of specialized work clothes and absence of medical care. As soon as "Transneft" president Vainshtok was replaced, Chinese workers from the globally famous company CPP, which had also planned to create public infrastructure around the pipeline and thus reduce construction expenses, were suddenly warned that they would have to leave Russia as their visas would soon expire. Nobody could explain who was issuing the orders, since the initial decision had been made at the level of both countries' presidents. As to the work itself, more than 1,000 km of pipeline have already been laid, causing a set of lawsuits for environmental violations. The most serious one was a plan to blow up the bed of the Lena river instead of using designated progressive technology to micro-tunnel under the riverbed. This plan was kept secret by engineers away from public scrutiny, which caused many protests among local and indigenous communities. These communities are deeply dependent on this huge Siberian river, which is still relatively clean in its upper course.

Source: BROC

4. Russian Forestry Sees Revolutionary Legal and Economic Changes

The new Russian Forest Code, adopted finally in late 2006, in combination with a new Russian tax policy on raw logs export, caused sort of industrial shock. Many companies involved in raw timber export have already been developing local processing facilities for several years. However the whole industry is still very dependent on Chinese imports of raw logs and keeps increasing these imports. Trying to look for investments into processing, Russian logging firms apply not only to foreign investors, but also to the newly-created regional Forest Services to receive a guarantee for the forest lease and raw timber. Problems arose from bureaucracy; State Forest Agency in the

Timber market in China
©Roman Fadeev, Vladivostok (Russia) -Suifenhe (China)

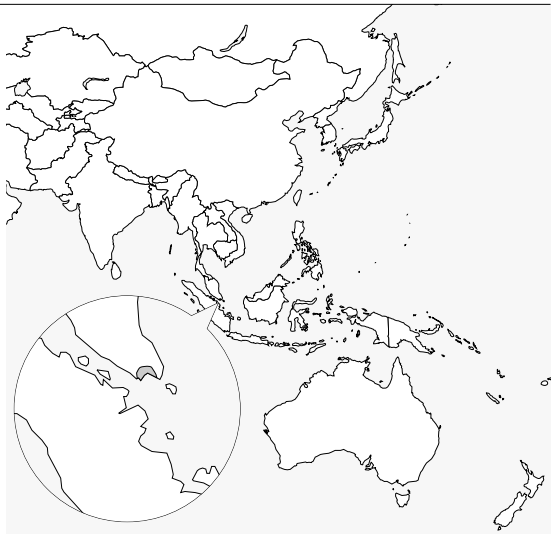
Ministry of Nature Resources was forced by the new Code to produce a whole set of regulations in 2007 with a logging declaration instead of the former permit The agency did not succeed in doing this, and thus prolonged the delivery of permits to January 2009. This will cause a kind of legal paradox: since 2007 no official body has the right to deliver permits, as former leskhozes are liquidated. From 2008, newly created regional services will get temporary rights to deliver old-fashioned permits, whilst the federal body finally will create a model of the new declaration instead. Specifically, most legal problems for 2008 will arise in January — no one knows who, and by which right, may deliver logging permits to start most productive operations even from the very beginning.

Source: BROC

Pipelines in Sakhalin forest
©Dmitry Lisitzyn, "Sakhalin Environmental Watch"

Singapore

Koh Kheng Lian,
Faculty of Law, National University of Singapore (NUS); and Director, Asia-Pacific Centre for Environmental Law (NUS)



1. Infectious Diseases Act (Chapter 137)

Pursuant to section 10 (1) (b) of the Infectious Diseases Act, the Director of Medical Services made an order for the National University Hospital and Tan Tock Seng Hospital to collect residual blood serum samples from patients suffering from dengue, hemorrhagic fever or chikungunya fever and to send them to the Environment Health Institute of the National Environment Agency for the purpose of carrying out such tests as the Director may determine for dengue and chikungunya surveillance. The purpose is to prevent the spread of these diseases (Measures to Prevent Spread of Infectious Diseases Order 2007 which came into operation on 18 January 2007).

2. Environmental Pollution Control Amendment Act 2007

The Environmental Pollution Control Act, Chapter 94A was amended to "Environmental Protection and Management Act" and its long title was also consequentially amended to read as the "Environmental Pollution Control (to provide for the protection and management and resource conservation) Act".

The Schedule to the Environmental Pollution Control (Hazardous Substances) Regulations (Reg. 4) (made under the above Act) has been amended to exclude hydrogen peroxide. (No. S375, G.N.Nos. S77/2005; S713/2006 — 22 June 2007).

Also, under the above Act (No. 296 Amendment of Second Schedule Order 2007), a number of substances such as barium nitrate, hydrogen peroxide and sodium nitrate have been deleted.

3. Radiation Protection Act 2007

This Act was repealed and re-enacted with amendments as the Radiation Protection Act (Chapter 262 of the 1992 Revised Edition) to control and regulate the import, export, manufacture, sale, disposal, transport, storage, possession and use of radioactive materials and irradiating apparatus; to make provision in relation to the non-proliferation of nuclear weapons, and to establish a system for the imposition and maintenance of nuclear safeguards, to provide for matters connected therewith, and to make consequential amendments to certain other written laws.

Pursuant to Section 41 of the Act, an exemption is made under the Radiation Protection (Transit and Transshipment) (Exemption) Regulation 2007 in relation to any radioactive materials or irradiating apparatus —

(a) brought into Singapore in transit or on transshipment; or
(b) carried as part of the equipment of any vessel or aircraft coming into Singapore

4. Smoking (Prohibition in Certain Places) Act (Chapter 310, Section 3 (1)): Smoking (Prohibition in Certain Places) Notification

The regulations prohibiting smoking have been extended to any discotheque, pub, bar, lounge or night club in any premises or building (including any private club) with certain exceptions *(S268/2007, with effect from 1 July 2007)*. Regulations also extend to omnibus, private bus, private hire bus, school bus and taxi (S348/97).

5. National Energy Policy Report (NEPR), 2007

The Singapore Government launched the National Energy Policy Report (NEPR), and outlined a holistic national energy policy framework that balances the three policy objectives of economic competitiveness, energy security and environmental sustainability. The NEPR presents six key strategies that the inter-ministry Energy Policy Group:

Strategy 1: Promote Competitive Markets: It will help keep energy affordable and ensure our economic competitiveness; liberalised electricity and gas markets encourage the private sector to innovate in order to achieve energy security and environmental outcomes.

Strategy 2: Diversify Energy Supplies: Protect price increases and other threats to the reliability of supply.

Strategy 3: Improve Energy Efficiency: Use less energy and decrease our dependence on energy imports and enhance our energy security, while reducing business costs, pollution and CO_2 emissions. The Government has set up an Energy Efficiency Programme Office (E^2PO) and developed a comprehensive Energy Efficient Masterplan (also called E^2Singapore) to promote the adoption of energy efficiency technology and measures, raise public awareness, and build capability and expertise in energy efficiency.

Strategy 4: Build Energy Industry and Invest in Energy R&D: Increase our refining capacity to consolidate our status as Asia's premier oil hub. The governance will expand the range of energy trading products to include liquefied natural gas (LNG), biofuels and CO_2 emission credits. It will also pursue growth opportunities in clean and renewable energy, including solar energy, biofuels and fuel cells.

Strategy 5: Step Up International Cooperation: International cooperation on energy is essential given Singapore's small size and reliance on energy imports. Singapore has been active in energy and energy-related discussions at major forums including the Association of Southeast Asian Nations (ASEAN), the Asia-Pacific Economic Cooperation (APEC) and the East Asia Summit (EAS). As effective action against climate change can only be done at an international level, Singapore also participates actively in the United Nations Framework Convention on Climate Change (UNFCCC) and discussions on climate change at other forums.

Strategy 6: Develop a Whole-of-Government Approach: The growing complexity and strategic importance of energy policy demands a Whole-of-Government approach. Several organisational changes have also taken place, such as a new Energy Division in Ministry of Trade & Industry (MTI), the expansion of the Energy Market Authority (EMA), and the creation of the Clean Energy Programme Office and the E^2PO. The Government has also set up the Energy Studies Institute (ESI) at the National University of Singapore (NUS) to promote and develop policy-oriented research on the economics, environmental and international relations aspects of energy, as well as contribute to energy dialogue and collaboration within the region.

(The full National Energy Policy Report is available at source: www.mti.gov.sg)

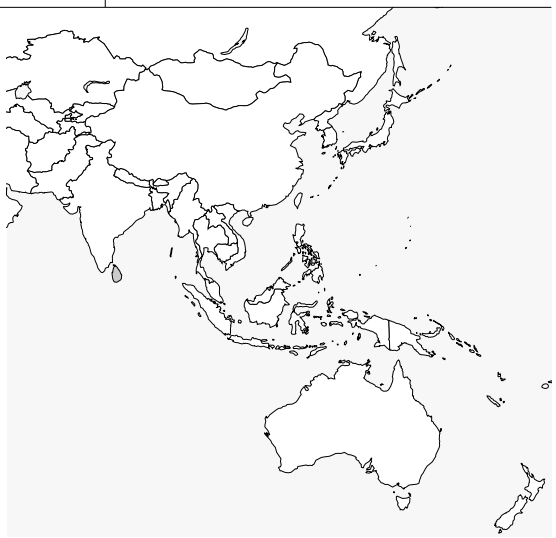
6. Capacity Building in Environmental Law

The Asia-Pacific Centre for Environmental Law (APCEL) organised the Conference on Crucial Issues on Climate Change and the Kyoto Protocol: Asia and the World, 30-31 August 2007. A workshop was held entitled "Workshop on Urban and Industrial Environmental Management: The Singapore Model", from 5-11 December 2007.

Source: http://law.nus.edu.sg/apcel/new.htm

Sri Lanka

Nalaka Gunawardene
Director and Chief Executive Officer
TVE Asia Pacific



1. Coal-fired Power Plant Finally Begins Construction

More than 16 years after it was originally proposed, construction has finally started on the first coal-fired electricity plant in Norochcholai in Sri Lanka's North-western province. The project will build a 300 MW power plant, with infrastructure planned for a 900 MW power plant in the future at total estimated cost of USD 455 million. Exim Bank of China is providing a soft loan of USD 300 million for the construction, which is expected to commence power generation from 2011 — just in time to avert a major power shortage predicted for after 2010.

The project has long been opposed by environmentalists and the Catholic church who fear adverse effects on people's health, livelihoods and the environment. The government's Electricity Board promises to use 'clean coal technologies' to reduce pollution and also to adopt measures to minimise disruption of fisheries and other local livelihoods. Since many past promises have not been honoured, critics remain unconvinced and they are keeping a sharp eye on the project's implementation.

References:

http://www.themorningleader.lk/20071121/spotlight.html

http://www.ejustice.lk/article-norochcholai.htm

2. Climate Change Impact Can be Worse than Civil War

As the UN's Intergovernmental Panel on Climate Change (IPCC) reconfirmed the short, medium and long term impacts of human-induced climate change, Sri Lanka started addressing strategies for adaptation. Climate experts have warned that higher temperatures over the next 20 years could ravage Sri Lanka's dry zone agriculture, while rising seas will affect the coastal economy.

Many parts of the Jaffna peninsula and other coastal areas in the island's north and east — where government troops and Tamil Tiger rebels are engaged in a separatist war for 25 years — would be submerged in the coming decades with sea level rise, according to the Sri Lankan vice chairman of IPCC, Dr Mohan Munasinghe.

Meanwhile, the Environment Minister cautions that 'around 55 percent of the coast is eroding at rate of around 30 cm a year'. Such erosion and future inundation threaten tourist resorts, while increasing salinity in rivers and damaging some coastal ecosystems. Over 70 per cent of disasters in Sri Lanka are weather and climate related, and the poor are the worst affected.

Adaptation strategies include promoting salt tolerant and drought resistant crop varieties, and nurturing or protecting 'natural barriers' along the coast, i.e. mangroves, sand dunes and

coral reefs.

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http://www.lbo.lk/fullstory.php?newsID=1301661969&no_view=1&SEARCH_TERM=1

http://ipsnews.net/news.asp?idnews=37463

3. Supreme Court Steps into Clean up Colombo's Polluted Air

Responding to civil society and media concerns on deteriorating air quality, Sri Lanka's Supreme Court intervened in 2007 to ask the state to take remedial measures. In October, the apex court directed the Attorney General to involve relevant parties and prepare a new action plan within a month to reduce air pollution caused by vehicles in Colombo city.

A lawyer with the Environmental Foundation Limited (EFL), a public interest law group, petitioned court claiming that her fundamental rights were being violated by continuing air pollution which was detrimental to human health. Lacking in large scale manufacturing and mining industries, Sri Lanka's main sources of air pollution are vehicle exhausts.

The Court noted that a new traffic system should be introduced to stop too many vehicles coming into Colombo city. It also called for a system of converting petrol and diesel vehicles to gas to reduce air pollution. The new plan is to be implemented from 2010.

References:

http://www.dailymirror.lk/2007/10/13/front/02.asp

http://www.lankabusinessonline.com/fullstory.php?newsID=238085516&no_view=1&SEARCH_TERM=24

4. Proposed 'Green Tax' Highly Controversial

The government's plan to introduce a new 'Environmental Conservation Levy' (ECL) as part of budget proposals for 2008 ran into high controversy in November. The budget speech noted that the damage caused to the environment through air and water pollution, as well as soil erosion is estimated to be around 2% of the GDP. The green tax is to meet the deficit in finances for resource conservation, and will specifically go into supporting recycling.

All households that have a car, telephone or electricity connection will be required to pay LKR 240 (USD2.20) per year as ECL. It is expected to annually raise LKR 1,000 million (USD 9.18 million) of additional revenue for the state.

Critics point out that it would actually cost as much - or more - to collect this levy. In a country with very little recycling capability, it is not clear how this revenue will be spent. The state environmental agency engaging in revenue collection could detract from its core mission, and also make conservation unpopular

Sri Lankan fisherman engaged in replanting Mangroves in Kalpitiya lagoon.
Photo: TVE Asia Pacific

Youth volunteers of Sarvodaya preparing community-based hazard map of coastal area in Sri Lanka.
Photo: TVE Asia Pacific

among people reeling under multiple tax burdens.

References:

http://www.themorningleader.lk/20071114/spotlight.html

http://www.lbo.lk/fullstory.php?newsID=556816249&no_view=1&SEARCH_TERM=24

Thailand

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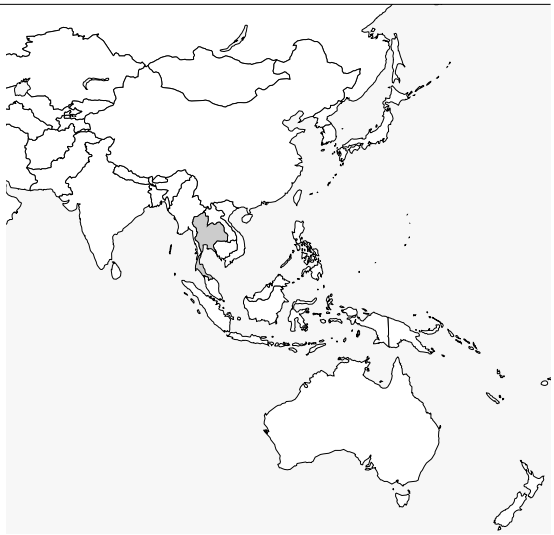


1. Thailand Goes for Nuclear?

The interim government has laid out several plans for the next government to bid for the construction of a nuclear power plant as well as methods on finding alternative and renewable energy. The projects will be pursued by the new government to ensure the nation's uninterrupted energy supply

Both the Energy Ministry and Science Ministry are aiming to propose a draft nuclear law to the National Legislative Assembly for consideration before the end of 2007.

For the first time, a 4,000-megawatt nuclear plant is specifically included in the 2007 Power Development Plan as an alternative source of power. An action plan to build the nuclear power plant will be finished late this year, while the construction, if carried out as scheduled, is expected to be completed by the year 2020. The Energy Ministry plans to spend the first 6 years preparing all construction plans including the choice of location and to take the remaining 7 years to focus on the actual construction.

According to the plan, the Electricity Generating Authority of Thailand (EGAT) will look for an 800 acre site for the plant construction with the budget estimation of US$6 billion.

Reference:

Manager Online, www.manager.co.th, [15 October 2007]

Bangkok Post, [26 September 2007]

MCOT, [26 September 2007]

2. Progress on Biofuels Development

Alternative and renewable energy sources are being developed increasingly in Thailand to replace gasoline and diesel.

Thailand is endowed with rich agricultural resources, which can be used as raw materials for biofuels. Some of them, for example, sugar cane, tapioca and palm oil, are used to produce ethanol and biodiesel to replace gasoline and diesel.

Concerning gasoline and diesel substitution, on 1 April 2008, the Government will enforce the mandatory use of "B2," consisting of a mix of 2% biodiesel and 98% diesel. With support from the Government, the retail price of gasohol, a mix of 5% ethanol and 95% gasoline, is 10% lower than that of gasoline.

The use of gasohol is now on a sharp rise and becoming more popular. A target has been set to replace 20% of gasoline and diesel consumption by biofuels and natural gas within 5 years.

Reference:

Department of Alternative Energy Development and Efficiency, [22 June 2007]

3. Master Plan on Responses to Floods, Storms and Landslides

The Cabinet approved a master plan on floods, storms and landslides in order to prevent these natural disasters and provide assistance to victims.

The master plan will last five years, from 2008 to 2012. It was developed jointly by the Office of the National Economic and Social Development Board, the Ministry of Interior, and the Ministry of Natural Resources and Environment. The objective is to set a framework and direction for assisting victims and for mitigating risks and damage with greater efficiency. The plan is also intended to enhance the capabilities of communities in helping themselves and preventing natural disasters in the initial stage. Another objective is to rehabilitate the emotional health of the worst-affected people as soon as possible.

The master plan consists of four strategies, which include prevention and the mitigation of effects, preparedness, crisis management, and post-disaster management. It calls on all agencies involved to work in an integrated manner, with the Department of Disaster Prevention and Mitigation, under the Ministry of Interior, as the major coordinating agency.

Reference:

Ministry of Natural Resources and Environment, [30 September 2007]

4. Thailand to Deploy More Tsunami Buoys in Andaman Sea

The Thai National Disaster Warning Center or NDWC is now preparing to install two more tsunami detection buoys in the middle of the Indian Ocean after they have been approved the budget.

In December 2006, Thailand, in cooperation with the National Ocean and Atmospheric Administration or NOAA from USA deployed a buoy reportedly nearer to India.

The additional buoys are expected to be deployed by the end of 2007 and will be located around 250 kilometers from Phuket Island that would allow more warning time for Thailand and other countries in the Indian Ocean Rim.

In another development, the Office of Marine and Coastal Resources is preparing to perform coral transplant underwater in December 2007 when the current is not so strong.

Reference:

Public Relations Department, [12 September 2007]

5. 45 Thai Companies Propose Carbon Credit Projects

Department of Alternative Energy Development and Efficiency revealed that 3 projects have been approved by the Clean Development Mechanism Executive Board. The projects were developed under the Clean Development Mechanism (CDM) of the Kyoto Protocol to reduce greenhouse gases emissions.

In Thailand, there are now 45 CDM projects proposed comprising of 50% of biogas projects, 25% of biomass projects and the remaining 25% of others. The proposals are to be submitted to the Ministry of Natural Resources and Environment for the Cabinet approval, to be looked at case-by-case.

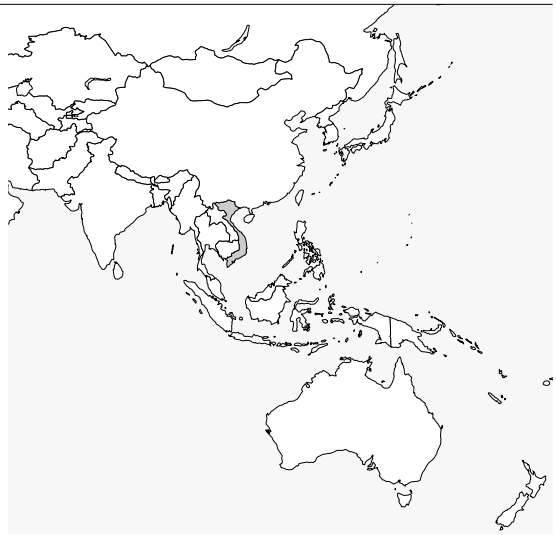
Currently, there are 7 projects approved by the Cabinet in which 3 of them have been registered to the CDM Executive Board for carbon credit trading, including Dan Chang Bio-energy (biomass project), A.T. Biopower (biomass project) and Khon Kean Sugar (biomass project).

Reference:

Energy for Environment Foundation, [6 August 2007]

Vietnam

Pham Huu Nghi
Professor, Editor in chief
Institute of State and Law, Vietnam Academy of Social Sciences



Source: Vietnam Association of Victims Agent Orange/Dioxin

1. US Grants 400,000 USD to Clean Up Dioxin Storage Site

Thirty two years after the war, Vietnam and the US co-operating to overcome the dioxin-affected environment. For the first time, the US Government endorsed a grant of 400,000 USD in technical assistance for the environmental remediation of former dioxin storage sites with initial focus on Da Nang Airport.

During the war, American forces sprayed about 12 million gallons of Agent Orange/dioxin over the jungle canopies and jade-green highlands of Vietnam. The most toxic of the herbicides used for military purposes, it defoliated countless trees in areas where the Vietnamese troops hid supply lines and conducted guerrilla warfare.

The Da Nang Airport is one of three identified contaminated "hotspots" and joint collaborative efforts will focus on establishing specific limitations designed to minimise off-site migration of dioxin and to develop a long-term cleanup plan. This is a meaningful action, but Vietnam and the US still have a long way ahead. Vietnamese experts estimate that at least 700 billion VND (about 43 million USD) are needed for remediation of contaminated areas in airports of Da Nang, Bien Hoa and Phu Cat. And the expenses to support Agent Orange/dioxin victims are many times higher than those for the environmental remediation.

2. Oil Spills Attack Vietnam's Most Beautiful Beaches

The first oil floats came to the coast of central Vietnam in early February. Only several weeks later, oil covered the coast of almost all central provinces like Quang Nam, Da Nang, Quang Ngai, Thua Thien - Hue, Quang Tri, Quang Binh. Oil could be seen everywhere. Oil then polluted the coast of Ha Tinh province and some northern areas. In mid March 2007, crude oil covered the coast of Phu Yen, Ba Ria - Vung Tau, Tien Giang, Ca Mau, causing serious pollution. Oil pollution is widening day by day. More than 1,200 tonnes of oil have been collected in the central region.

Since oil appeared on the central coast, a large and powerful force has been mobilised, comprising the National Committee for Search and Rescue, the Environmental Protection Agency under the Ministry of Natural Resources and the Environment, the Maritime Agency under the Ministry of Transport, the Environmental Police Agency under the Ministry of Public Security, the Consul Agency under the Ministry of Foreign Affairs, the Vietnam Oil and Gas Corporation, the naval force, the air force, the border guard force, etc.

Oil samples collected from different places

Collecting oil ©Vietnam.net

have been analysed but the source of the oil spill remains unknown. According to the Environmental Protection Agency, the source of the oil spill may be:

ⅰ) The result of the exploration, exploitation and transport of oil and gas, or from the washing of oil tankers in the South China Sea, especially from the eastern sea, southeast of Hainan Island, China.

ⅱ) From oil fields that have been closed.

Source: Ministry of Natural Resources and Environment

3. Capital City Expands Garbage Recycling Project

A project titled "Implementing the 3R Initiative in Hanoi to contribute toward a sustainable social development" was sponsored by the Japanese International Cooperation Agency (JICA).

Hanoi discharges over 2,200 tonnes of waste daily, of which only a small amount of organic waste is taken to a waste-processing factory in the city's suburbs to produce bio-fertilisers.

The 3R (Reduce-Reuse-Recycle)-Hanoi project aims to promote the practice of separating domestic waste at the source, with organic and inorganic wastes to be separated by individuals before collection by the Urban and Environment Company of Hanoi.

This practice is seen to essentially accelerate the utilisation of a great available amount of organic wastes for other profitable economic activities such as the production of compost fertiliser or pig farming. In terms of environmental benefits, this utilisation of organic wastes should substantially reduce the pressure on the currently-overloaded landfills.

The project is also aimed at promoting environmental education for Hanoi citizens about the economic and environmental benefits of the source separation through various means such as mass media and community meetings.

Hanoi is to become the fourth 3R city in Asia, following Yokohama in Japan, Hajai in Thailand and Penang in Malaysia.

Source: Hanoi City People's Committee

4. Police Bureau in charge of Environment to be Established

On 17 September, Vietnamese Minister of Public Security decided to establish police bureaus in charge of environmental matters under central-run cities and provinces' police force.

Under the Environmental Police Department, local environmental police bureaus will deal with violations of the Law on Environment as well as check production establishments which cause pollution.

The Environmental Police Department, established in November 2006, is supposed to prevent, discover and fight violations regarding the environment.

The country is home to 4,000 production and trade establishments seriously polluting the environment. "Environmental infringement" behaviour was defined in the 1999 Penal Code, yet no case has been taken to court.

Source: Vietnam News Agency

Organic waste is put into the green box and inorganic waste in the orange box
©Hanoi City People's Committee

Epilogue

Top News on the Environment in Asia has been published annually since the establishment of IGES in 1998 and with the 2007 edition celebrates its tenth anniversary. This edition marks the first appearance of an article from Papua New Guinea and collects a record 125 items from three organisations and 23 countries in an extensive overview of environmental issues in Asia ranging across such areas as global warming, air quality, water, waste and recycling, forests and nature conservation.

2007 was a year in which the pressing issue of global warming gained attention throughout the world, as seen in the awarding of the Nobel Peace Prize to former American Vice President Al Gore and the Intergovernmental Panel on Climate Change (IPCC). Top News on the Environment in Asia reports on incidents involving the impact of global warming such as glacial melting in the Himalayas and flooding due to concentrated heavy rainfalls, as well as on adaptation strategies for climate change in India and Bangladesh, the active development of biofuels in the countries of Southeast Asia and many other examples of action taken on global warming in the various countries of Asia. COP13, held in December in Bali, Indonesia, featured prominently on its agenda the conservation of forests as the absorbents of greenhouse gases, and we have received many reports this year on forest conservation, including the formulation of forest management plans in Bhutan and Lao PDR and policy implementation in Indonesia for the sustainable utilisation of forest resources.

Another feature in this edition's Top News on the Environment in Asia is the inclusion of reports on concrete efforts to cope with environmental issues by national governments and relevant organisations. These seem to reflect heightened awareness of environmental issues and a greater sense of crisis that accompanies rapid economic growth in Asia. The concept of "co-benefit", which highlights the positive developmental effects of reducing greenhouse gas emissions, such as higher energy efficiency and less severe air pollution, has now gained attention in Asia, and we should now expect greater demand for effective approaches appropriate to Asia from the standpoint of this sort of sustainable development.

With Top News on the Environment in Asia, we hope to continue to utilise the Asia-wide IGES research network and actively provide the latest information on trends in environmental issues and policies in Asia.

Previous Articles of Top News on the Environment in Asia

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[China] Ren Yong, Institute for Global Environmental Strategies (IGES)

1. Enactment of the State Council Ordinance Concerning Environmental Management for Construction Projects
2. Promotion of National Environmental Protection Agency (NEPA)
3. The Yangtse River Flood Caused by Abnormal Climate Conditions, but Worsened by Ecological Destruction in the Middle and Upper Reaches

[India] Maithili Iyer, Institute for Global Environmental Strategies (IGES)

1. Biodiversity Bill to be Discussed in the Winter Session of the Parliament
2. High Court Issues Notice to Manage Fly-ash Disposal
3. Proposed Ban on New Diesel Vehicles in the National Capital Region (NCR)

[Indonesia] Mohamad Soerjani, Institute for Environmental Education and Development (IEED)

1. Efforts to Socialise the New Environmental Management Law in Indonesia
2. Sustainable Development: Principles and Implementations
3. The Indonesian Biodiversity Foundation
4. New Eco-tourism Development, Depok, Indonesia

[Japan] Yohei Harashima, Institute for Global Environmental Strategies (IGES)

1. Enactment of the Law for the Promotion of Measures to Tackle Global Warming
2. The Emerging Environmental Pollution Caused by Exogenous Endocrine Disrupting Chemicals
3. Preparatory-Phase (Activities) of Acid Deposition Monitoring Network in East Asia (EANET)
4. Establishment of the Institute for Global Environmental Strategies (IGES)

[Korea] Tae Yong Jung, National Institute for Environmental Studies (NIES)

1. Posting Toxic Chemicals Control Act and Regulations
2. Reforming of Green-belt (Development Restriction Area)
3. First Ever Ecological Survey Planned on DMZ

[The Philippines] Merlin M. Magallona, University of the Philippines (UP)

1. Environmental Policy in the Philippine Fisheries Code of 1998
2. Environmental and Natural Resources Officers for Philippine Cities

[Singapore] Chia Lin Sien, Institute of Southeast Asian Studies (ISEAS)

1. New Measures to Combat Maritime Pollution
2. Singapore Ratifies International Maritime Conventions
3. Study on Energy Efficiency
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[Thailand] Tongroj Onchan, Thailand Environment Institute (TEI)

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2. Forest Encroachment and the Right of People to Live in Thailand's Dwindling Forest
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[Cambodia] Kol Vathana, International and Public Cooperation, Ministry of Environment (MoE)

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2. Workshop on "Awareness of the Ramsar Convention on Wetlands of International Importance"
3. "Management of Forests and Elimination of Illegal Forest Activity" Begins
4. Workshops on Development of Local Forests
5. Drafting of a "Sub-Decree on the 23 Protected Areas Management in Cambodia"

[China] Zhou Xin, Policy Research Center for Environment and Economy of State Environmental Protection Administration (PRCEE)

1. Twentieth Anniversary of the Enactment of "The Environmental Protection Law of the People's Republic of China"
2. Highlighting Pollution Control: Evident Results Achieved
3. Increase of Investment in Environmental Protection
4. Ecological Conservation in the Yangtze and Yellow River Basins

[India] Maithili Iyer, Tata Energy and Resources Institute

1. Supreme Court Tightens Emissions Standards in Delhi
2. Ministerial Directive to Use Fly Ash for Construction Purposes
3. Negotiations for a Biosafety Protocol

[Indonesia] Mohamad Soerjani, National Research Council

1. Provincial Autonomy in Regional Development
2. Profile of the Environmental Minister
3. Sustainable Development and Provincial Autonomy
4. Environmental Impact Analysis New Regulations 1999
5. Timber Plantation

[Japan] Yohei Harashima, Institute for Global Environmental Strategies (IGES)

1. Crested Ibis Hatching
2. Accident at the Conversion Building in the Nuclear Fuel Processing Plant
3. Law Concerning Special Measures for Dioxin Contamination
4. First Tripartite Environmental Ministers Meeting among China, Japan, and Korea
5. IGES Hosts the 1999 Open Meeting of the Human Dimensions of the Global Environmental Change Research Community

[Korea] Seung Woo Kim, Korea Environment Institute (KEI)

1. Reforming of the Greenbelt Policy
2. The Dong-gang Controversy
3. New Plan to Improve Nakdong River Water Quality
4. New System to Regulate the Use of Disposable Products
5. Nuclear Radiation Leak Accident

[Malaysia] Wan Portia Hamzah and Norhayati Mustapha, Institute of Strategic and International Studies (ISIS) Malaysia

1. National Coastal Zone Policy
2. The Dugong - A Creature Threatened?
3. Hope for Biodiversity
4. The Sungai Selangor Dam
5. Pesticide Danger in Rivers?
6. Climate Change Scenario
7. Decisive Action on Toxic and Hazardous Waste

[Mongolia] Ayush Namkhai, Development and Environment Center (DEC)

1. Draft Law on the Fauna of Mongolia
2. Natural Disaster Mitigation Country Programme
3. Programme for Protection of the Air
4. Regulation for Issuing Permits to Import, Sell and Use Ozone-Depleting Substances
5. Natural Disaster (Drought)

[Nepal] Bishnu Bhandari, Institute for Global Environmental Strategies (IGES)

1. Nepal Establishing a Trust Fund for Biodiversity Conservation
2. Vikarm Tempo Banned in Kathmandu
3. Forest Fire in the Himalayan Region
4. Drought in the Himalayas

[The Philippines] Merlin M. Magallona, University of the Philippines (UP)

1. A New Comprehensive Clean Air Law
2. Garbage Crisis ID Metropolitan Manila
3. Policy of Sustainable Forest Management

[Singapore] Chia Lin Sien, Institute of Southeast Asian Studies (ISEAS)

1. Policy Statements by Minister of the Environment, Singapore
2. The Deep Tunnel Sewerage System (DTSS)
3. Join the OPRC Conventions and Accepts Annex V of MARPOL 73/78
4. Annual Oil-spill Exercise
5. Suspension of Import of Live Pigs and a New License for Selling Chilled Pork

[Thailand] Tongroj Onchan, Thailand Environment Institute (TEI)

1. Anchovy Causes National Conflict
2. A Conservation Angle From Zemin's State Visit
3. A Controversial Movie "The Beach"
4. Confusion over Public Land Encroachment near Sri Nakharin Dam
5. Protest against the Coal-fired Power Plant Project

[Vietnam] Pham Huu Nghi, Institute of State and Law, National Center for Social and Humanities

1. Launching of Environmental Protection Policy
2. Hoi An and My Son to Become World Heritages
3. Worst Floods in Forty Years

[Southeast Asia] Chia Lin Sien, Institute of Southeast Asian Studies (ISEAS)

1. UNEP Commissions Review of Marine Pollution of East Asian Countries
2. Tenth Meeting of the ASEAN Senior Officials on the Environment, Bangkok
3. Regional Consultative Workshop on the East Asian Seas (EAS) Programme to Discuss Issues Concerning Liability and Compensation for Oil Spill Damage and Clean-up Claims
4. An Update on the Regional Haze Situation in Southeast Asia
5. Nipah Virus Epidemic in Peninsular Malaysia

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Masakazu Ichimura, United Nations Economic and Social Commission for Asia and the Pacific (UN/ESCAP)

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2. State of the Environment in Asia and the Pacific 2000
3. Regional Action Programme (RAP) for Environmentally Sound and Sustainable Development in Asia and the Pacific 2001-2005
4. Kitakyushu Initiative for a Clean Environment
5. Environmental Cooperation in North-East Asia

[The Asia-Pacific Region]
S. Tahir Qadri, Asian Development Bank (ADB)

1. Impact of Forest Fires on the Association of South East Asian Nations (ASEAN)

[Bangladesh] Khandaker Mainuddin, Bangladesh Centre for Advanced Studies (BCAS)

1. Devastating Flood Hit South-West Region of Bangladesh
2. Sound Waste Management; an Immediate Necessity for Dhaka City
3. Suspended Particulate Matters Remain High in the Air of Dhaka City
4. Red List on Endangered Wildlife

[Cambodia] Khieu Muth, Ministry of Environment, Cambodia

1. Floods in Cambodia
2. National Greenhouse Gas Inventory for 1994
3. New Sub-Decree of Air Pollution
4. Coastal and Marine Problems

[China] Zhou Xin, Policy Research Center for Environment and Economy (PRCEE), The State Environmental Protection Administration (SEPA)

1. The Second Revision of the Law of Air Pollution Prevention and Control
2. Great Efforts Taken to Realize the Target of "One Control and Double Attainments"
3. Beijing Initiates the "Green Olympic Action Plan"
4. Sandstorms Hit Beijing and Tianjing Municipalities

[India] Prasad Vaidya, The Weidt Group

1. India Joins the GLOBE Program
2. Draft Rules for Recycling/Management of Lead Acid Batteries
3. Supreme Court Clears Sardar Sarovar on the Marmada River
4. State Governments Fund Participatory Water Harvesting Programs

[Indonesia] Mohamad Soerjani, Institute for Environmental Education and Development

1. National Conference on Natural Resource Management
2. Indonesian Sectoral Agenda 21
3. Environmental Toxicology, Pollution Control and Management
4. National Flora and Fauna Loving Day, 2000
5. Caring for the Future

[Japan] Yohei Harashima, Takushoku University

1. The Basic Law for Establishing a Recycling-based Society
2. Regulation of Exhaust Gases from Diesel Vehicles in the Tokyo Metropolitan Area
3. ESCAP Ministerial Conference on Environment and Development
4. G8 Environment Ministers' Meeting
5. Illegal Transfer of Hazardous Wastes to the Philippines

[Korea] Hoi-Seong Jeong, Korea Environment Institute

1. The Illegal Toxic Discharge of the Eighth US Army
2. The Suspension of the Planned Construction of Yongwol Multi-Purpose Dam
3. The Establishment of the Presidential Commission on Sustainable Development (PCSD)
4. Environmental Impacts Investigation on the Saemankeum Reclamation Project

[Lao PDR] Viengsavanh Duangsavanh, Technology and Environment Agency

1. The Environment as Public Responsibility
2. Local Environmental Management
3. Environmental Impact Assessment
4. Public Involvement in Nam Theun 2 Hydro-Power Project
5. Press Release on Climate Change

[Malaysia] Norhayati Mustapha, Institute of Strategic and International Studies (ISIS)

1. Timely Review of Highland Development
2. Foiled Toxic Waste Shipment
3. Climate Change Update
4. Millennium Tree Planting
5. Beach Clean-up
6. Recycling Launch

[Mongolia] Ayush Namkhai, Development and Environment Center; Dondogiin Enkhbayar, Ministry for Nature and Environment

1. Law on Tourism
2. Law on Banning the Import, Export and Trans-boundary Movement of Hazardous Waste, and Concerning its Export
3. National Action Programme on Climate Change
4. Natural Disaster
5. Establishment of the "ECO ASIA" Institute

[Nepal] Phool Chandra Shrestha, Freelance Consultant Bishnu B. Bhandari, Institute for Global Environmental Strategies (IGES)

1. Nepal's "Gift to the Earth"
2. Restoration of the Churia Foothills as a Biological Corridor
3. Nepal Rhino Count 2000
4. Grassroots Conservation Initiatives in Rural Nepal
5. Ban on Old Vehicles in Cities in 2001

[The Philippines] Merlin M. Magallona, University of the Philippines

1. Garbage Avalanche Killed More Than 200 People
2. Hazardous Waste Shipment Sent Back to Japan
3. Lawyers Demand Compensation for Victims of Toxic Waste Contamination in Former U.S Military Bases
4. Oil Spill by Singaporean Tanker

[The Russian Far East] Alexander Sheingauz, Economic Research Institute

1. New Administration for the Use of Natural Resources
2. Voluntary Forest Certification Begins
3. New Protected Area Is Established in Amurskaya Oblast
4. International Workshop on Sustainable Forest Management
5. New Method of Oil Waste Utilization

[Singapore] Chia Lin Sien, Institute of South East Asian Studies

1. Sewage Contamination of Water Supply in Public Buildings
2. Review of Long-Range Comprehensive Concept Plan
3. Waste Collection in Singapore
4. Chemical Spill Stops Fishing and Swimming
5. Deep Tunnel Sewerage System (DTSS): First Tender For Changi Wastewater Treatment Plant
6. Virus Outbreak of Hand, Foot and Mouth Disease (HFMD)

[Thailand] Tongroj Onchan, The Mekong Environment Resource Institute (MERI) and Thailand Environment Institute (TEI)

1. Protest against Thai-Malaysian Natural Gas Pipeline
2. The Violent Pak Moon Dam Protest at the Government House
3. The Car Free Day Campaign
4. Costly Dike Causes Water Pollution
5. Mishandling of Radioactive Waste

[Vietnam] Pham Huu Nghi, Deputy Director of State and Law Journal, Institute of State and Law, National Center for Social Science and Humanities

1. Sanctuary for the Ho Guom Turtle
2. Large Flood in Cuu Long River Delta, South Vietnam
3. Effects of the Ho Chi Minh Highway Project on Cuc Phuong National Garden

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3. Strengthening Regional Capacity for Environmental Law and Conventions
4. Japanese Company Helps Empower UNEP Education, Awareness and Training Work
5. Industry Outreach and Networking

[The Asia-Pacific Region]
Lester R. Brown, Earth Policy Institute (EPI)

1. Dust Bowl Threatening China's Future

[The Asia-Pacific Region]
Institute for Global Environmental Strategies (IGES)

1. ECO ASIA 2001
2. Regional Preparation for the WSSD (Johannesburg Summit)
3. COP 7
4. Illegal Logging in Indonesia
5. New Bill on Managing the Three Largest Rivers in South Korea
6. Korean Environmental Education Act in the Offing
7. Developments on Environmental Management Accounting in Asia

[Australia] Gerard Early, Approvals and Legislation, Environment Australia

1. Environmental Law Reform
2. Extension of the Natural Heritage Trust
3. National Action Plan on Salinity and Water Quality
4. Sydney Harbour Federation Trust
5. Australia's Virtual Herbarium

[Bangladesh] Khandaker Mainuddin and Dwijen Mallick, Bangladesh Centre for Advanced Studies (BCAS)

1. Buriganga, the Most Polluted River in Bangladesh
2. Arsenic Contamination in Groundwater poses Serious Health Threat
3. Banning of Polythene Bags is high on the Agenda of the Government of Bangladesh
4. Bio-diversity Conservation Programme Launched in the Sundarbans

[Cambodia] Khieu Muth, Ministry of Environment

1. Survey in Lomphat Wildlife Sanctury
2. Regional Platform on Sustainable Development for Asia and the Pacific
3. The 6th Informal ASEAN Ministerial Meeting on the Environment (15-16 MAY 2001)
4. Japanese Royal Couple in Cambodia

[China] Zhou Xin, Policy Research Center for Environment and Economy (PRCEE), The State Environmental Protection Administration (SEPA)

1. New Restrictions on Automobile Manufacture and Emissions
2. Beijing Strengthening Environmental Protection to Realize "Green Olympic"
3. The Law of Desertification Prevention and Control
4. Air Quality Forecast in 47 Key Environmental Protection Cities

[India] Prasad Vaidya, The Weidt Group, USA; Maithili Iyer, Lawrence Berkeley National Laboratories, USA

1. Ban on Plastic Bags Widens
2. State Governments Follow through on Rainwater Harvesting
3. Energy Conservation Act
4. Protection of Plant Varieties and Farmers' Rights Bill

[Indonesia] Mohamad Soerjani, Institute for Environmental Education and Development (IEED), Member of the National Research Council Indonesia

1. "Clean Ciliwung River Campaign," Jakarta
2. Integrated Chemical Management and Safety
3. National Workshop on Environmental Education
4. Novel Approach to Organic Waste Composting
5. Environmental Policy Revitalization

[Japan] Yohei Harashima, Takushoku University

1. Controversy on Ratifying the Kyoto Protocol
2. Reconsidering the Land Reclamation Project at the Isahaya Bay
3. Enforcement of the Law for Recycling of Home Appliances
4. Inauguration of the Ministry of the Environment

[Korea] Jeong-Gue Park, Korea Environment Institute (KEI)

1. Environmental Efforts Driven by the 2002 FIFA World Cup Hosted by Korea and Japan
2. Conservation of the Tumen River
3. Eco-Technopia 21
4. Saemankeum Reclamation Project

[Lao PDR] Soukata Vichit, Science Technology and Environment Agency (STEA)

1. Integration of Environmental Concerns into Socio-Economic Development Plans
2. The First State of Environment Report
3. The First Sectoral EIA Regulation
4. EIA for Gold Mine
5. Program to Improve Environmental and Social Management

[Malaysia] Wan Portia Hamzah and Norhayati Mustapha, Institute of Strategic and International Studies (ISIS)

1. Focus on Wetlands
2. Natural Heritage of Belum to Remain
3. EIA for All Projects
4. Prestigious Award for Malaysians Committed to Turtle Conservation
5. Transfrontier Protected Areas

[Mongolia] Ayush Namkhai, Development and Environment Center; Dondogiin Enkhbayar, Ministry for Nature and Environment

1. Air Pollution in the Capital
2. Amendments Made to the Law on Environmental Impact Assessment
3. Determination of List, Estimation of Size and Percentage of Payments and Charges
4. Pasture Overgrazing Increases
5. Census of Argali Sheep (Ovis Ammon) Population
6. Drought for Three Years Running

[Nepal] Phool Chandra Shrestha, Freelance Consultant

1. Kumrose Community Forest Earns from Eco-tourism
2. Arsenic Contamination in Groundwater
3. Lake Phewa Plan Adds Woes
4. Leasehold Forestry in 16 More Districts
5. National Policy on Wetland Management

[New Zealand] Jacquelyn Harman; Neil Ericksen, The International Global Change Institute (IGCI), The University of Waikato

1. New Zealand Takes Steps Towards Ratifying the Kyoto Protocol
2. Moratorium on Field Trials of Genetically Modified Organisms Lifted
3. Ten Years Under the Resource Management Act (1991)

[The Philippines] Merlin M. Magallona, University of the Philippines

1. Garbage Crisis and the Semirara Controversy
2. President Estrada Calls Military to Assist in Garbage Disposal
3. Smoking Ban Starts June 2001
4. Congressional Measure for Wildlife Resources Conservation Signed into Law

[The Russian Far East]
Alexander Sheingauz, Economic Research Institute

1. New Russian Target Program on Ecology and Natural Resources
2. New GEF Project on Ecosystem Conservation in Khabarovskiy Krai
3. International Conference on Sustainable Forest Management
4. Exhaustion of Fish Reserves in the Sea of Okhotsk
5. A Surge of Poaching in Ussuri Taiga

[Singapore] Koh Kheng-Lian, Asia-Pacific Centre for Environmental Law (APCEL), Faculty of Law National University of Singapore

1. Industrial Water ("NEWater")
2. Convention on Persistent Organic Pollutants, 2001
3. Resources Conservation & Waste Minimization
4. Draft Singapore Green Plan 2012
5. Capacity Building in Environmental Management

[Thailand] Tongroj Onchan, The Mekong Environment and Resource Institute (MERI)

1. Phetchabun Flash-Floods and Mudslides: Death Toll

Climbs to More Than 120 People
2. Ban on Inland Prawn Farming
3. GM Food Will Be Labeled
4. Bangkok Faces Garbage Crisis

[Vietnam] Pham Huu Nghi, Institute of State and Law, National Center for Social Science and Humanities

1. The Project to Improve and Purify the Environment of the Tolich, Lu, and Set Rivers in the Capital City of Hanoi
2. The Oil Overflow Incident On the Sea of Vungtau
3. The National Seminar on Abidance with and Enforcement of Environmental Laws

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3. UNEP Project to Harness the Potential of ICT for Environmental Protection
4. Sweden Supports UNEP Initiative to Reduce Greenhouse Gas Emissions
5. Japan Company-Funded UNEP Project Empowers Education

[The Asia-Pacific Region]
Lester R. Brown, Earth Policy Institute (EPI)

1. Water Deficits Growing in Many Countries

[The Asia-Pacific Region]
Institute for Global Environmental Strategies (IGES)

1. The Second Global Environment Facility (GEF) Assembly
2. APFED's Message to the World Summit on Sustainable Development (WSSD)
3. The Eighth Session of the Conference of the Parties (COP8) to the United Nations Framework Convention on Climate Change (UNFCCC)
4. New "Bio Carbon Fund" Launched by World Bank
5. Yellow Dust-Storm over the Skies of Northeast Asian Cities
6. Ramsar Convention on Wetlands Held
7. The Second China-Korea-Japan Tripartite Roundtable on Environment Industries

[Australia] Gerard Early, Approvals and Legislation, Environment Australia

1. State of the Environment
2. Natural Resource Management
3. Sustainable Schools
4. Australia and Japan Unite to Protect Migratory Birds
5. World's Biggest Marine Reserve

[Bangladesh] Khandaker Mainuddin, Bangladesh Centre for Advanced Studies (BCAS)

1. Workshop on Capacity Building for Preparation of National Adaptation Programmes of Action (NAPA)
2. Total Ban on Two-Stroke Autorickshaws in Dhaka City
3. Noise Pollution Caused Environmental and Health Problems in Dhaka City
4. Citizens and Environmental Groups Demand Protection of Rivers and Water Bodies

[Cambodia] Khieu Muth, Ministry of Environment

1. 1st Greater Mekong Sub-Region (GMS) Program Summit
2. The 8th ASEAN summit
3. Training Workshop on Climate Change Issues

[China] Zhou Xin, Policy Research Center for Environment and Economy (PRCEE), The State Environmental Protection Administration (SEPA)

1. The Fifth National Conference on Environmental Protection
2. The Law of Environmental Impact Assessment
3. Anti-Desertification Combating in China
4. The Second Assembly of Global Environment Facility in Beijing

[India] Kirit S. Parikh, Indira Gandhi Institute of Development Research, Integrated Research and Action for Development

1. Civil Society Groups Get Action on Air Pollution in Delhi
2. Supreme Court Protects Tribals' Right
3. India Ratifies the Kyoto Protocol and Hosts COP8
4. Parliament Passes Bio-Diversity Act
5. International Recognition for Indian Environmentalists

[India] R Uma, Tata Energy Research Institute (TERI)

1. India Moves to Eliminate the POPs
2. Regional Workshop on Household Energy Indoor Air Pollution and Health
3. Asian Brown Cloud
4. Auto Fuel Policy
5. The Eighth Session of the Conference of Parties (COP8) to the United Nations Framework Convention on Climate Change (UNFCCC)

[Indonesia] Mohamad Soerjani, Institute for Environmental Education and Development (IEED), Indonesian National Research Council

1. Indonesia at the World Summit on Sustainable Development
2. Sustainable Development Plan of Action on Women and Children
3. The Earth Charter
4. Cooperation with Environmental Counseling Association in Nagasaki (ECAN)
5. The International Center for Research in Agroforestry (ICRAF): Teaching Materials

[Japan] Yohei Harashima, Takushoku University

1. Conclusion of the Kyoto Protocol and the World Summit on Sustainable Development (WSSD)
2. Trouble at Nuclear Plants
3. New National Strategy on Biological Diversity
4. Food Safety Scandals

[Korea] Jeong-Gue Park, Korea Environment Institute (KEI)

1. Cheonggyecheon Restoration Project
2. Comprehensive Measures for Water Supply Special Act of the Four Major Rivers and Establish the Water Pollution Prevention Plan
3. Seoul Metropolitan Air Quality Improvement

[Lao PDR] Somsanouk Phonnakhoth, Science Technology and Environment Agency (STEA)

1. Keys Environmental Issues in Lao PDR
2. 1st ASEAN+3 Environment Ministers Meeting
3. Lao Environmental Fund
4. Environmental Education and Awareness Programme
5. Climate Change Actions Further Developed

[Malaysia] Norhayati Mustapha and Wan Portia Hamzah, Bureau of Environment, Science and Technology (BEST), Institute of Strategic and International Studies (ISIS)

1. Tora! Tora!
2. People Power Succeeds in Re-locating Incinerator
3. Genetic Engineering

4. Participation of Local Communities in Wetland Conservation

[Mongolia] Ayush Namkhai, Development and Environment Center; Dondogiin Enkhbayar, Ministry for Nature and Environment

1. Renewed Law on Land
2. Dangerous Forest Fires and Forest Pests
3. Regional Project on Yellow Dust-Storm
4. Polar Researchers Jubilee

[Nepal] Phool Chandra Shrestha, Freelance Consultant

1. Melting Ice on Everest
2. Land Degradation Combat Plan Underway
3. Tons of Expired Pesticides Stored
4. Plan to Make Daman Second Botanical Garden
5. Medical Waste Contributes to Pollution

[New Zealand] Jacquelyn Harman; Neil Ericksen, The International Global Change Institute (IGCI), The University of Waikato Sustainable Development in New Zealand

1. A Sustainable Development Strategy for New Zealand
2. Monitoring Sustainable Development in New Zealand
3. An Evaluation of Progress on Ecological Sustainable Development

[The Philippines] Merlin M. Magallona, University of the Philippines

1. World Bank Report on Air Pollution
2. Malampaya Project Won Award in World Summit on Sustainable Development
3. Philippines Ranks Low in Environmental Survey
4. Legislative Attempt Failed to Suspend Implementation of Clean Air Act
5. Destruction of Coral Reef Continues Unabated

[The Russian Far East]
Anatoly Lebedev, Bureau of Regional Outreach Campaigns (BROC)

1. Russian Taiga Has Lost Much of Its Wilderness
2. Certification in Forestry Does Not Mean Environmental Sustainability
3. Russia is Sinking under Nuclear Waste and Spent Fuel
4. Payment for Waste Disposal into Environment Shifted to the Budget
5. Forest Strategy as a Way to Hide Illegal Timber

[Singapore] Koh Kheng-Lian, Asia-Pacific Centre for Environmental Law (APCEL), Faculty of Law, National University of Singapore

1. National Environment Agency (NEA)
2. The Singapore Green Plan 2012: Beyond Clean and Green Towards Environmental Sustainability
3. Environment Recycling
4. Capacity Building

[Thailand] Tongroj Onchan, The Mekong Environment and Resource Institute (MERI)

1. The Establishment of the Ministry of Natural Resources and Environment
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3. Labeling of Genetically Modified Foods
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[Vietnam] Pham Huu Nghi, Institute of State and Law, National Center for Social Science and Humanities

1. Establishment of the Ministry of Natural Resources and Environment
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2. Northeast Asia Dust and Sand Storms Project Initiated
3. South Asia State of the Environment Reports Target Policy Makers and Youth
4. ASEAN Fire Haze Agreement Takes Effect
5. Chinese Minister Xie Wins UNEP Sasakawa Environment Prize

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Lester R. Brown, Earth Policy Institute (EPI)

China Losing War with Advancing Deserts

[The Asia-Pacific Region]
Institute for Global Environmental Strategies (IGES)

1. The Kyoto Protocol
2. South Asian Regional Conference on Transition towards Sustainable Development
3. Second Meeting of the Kitakyushu Initiative Network
4. The Second and Third Meetings of the Promotion of Asia Forest Partnership (AFP)
5. Enactment of the "Environmental Education Promotion Law"
6. UNEP FI 2003 Global Roundtable in Tokyo
7. The Third World Water Forum (WWF3)
8. The International Conference on Environmentally Sustainable Transport

[Australia] Gerard Early, Australian Government Department of the Environment

1. More Protection for the Great Barrier Reef
2. New Heritage Legislation
3. First Marine Plan under Australia's Oceans Policy
4. Sustainable Cities Initiative

[Bangladesh] Khandaker Mainuddin, Bangladesh Centre for Advanced Studies (BCAS)

1. UNDP will Support Cleaner and Environment Friendly Ship-Breaking
2. Conference on Sanitation Held in Dhaka
3. Laws to Regulate the Operation of Brick-kilns
4. Relocation of Tannery Cluster from Dhaka City to New Industrial Estate
5. Integrated Action Plan to Save the River Buriganga

[Cambodia] Khieu Muth, Ministry of Environment

1. ASEAN Environment Year 2003 (AEY)
2. The 1st Ecotone Seminar Phase II and The 3rd Meeting of Southeast Asian Biosphere Reserve Network (SeaBRnet)
3. Cambodia Protected Area Law

[China] Zhou Xin, Policy Research Center for Environment and Economy (PRCEE), The State Environmental Protection Administration of China (SEPA)

1. China Won 2003 Outstanding National Units Ozone Award
2. Information Disclosure of Corporate Environmental Performance
3. China Council for International Cooperation on

Environment and Development

[India] Kirit S. Parikh, Indira Gandhi Institute of Development Research, Integrated Research and Action for Development

1. Civil Society Vigilance Helps Arrest Threats to Taj Mahal
2. Pesticides Residue in Bottled Water and Soft Drinks
3. ISO 14000 Rating for Industrial Townships
4. Capacity Building in Environmental Economics
5. Volvo Environment Prize 2003 for Ecologist and Environmental Activist Dr. Madhav Gadgil

[Indonesia] Mohamad Soerjani, Institute for Environmental Education and Development (IEED), Member of the National Research Council, Indonesia

1. Community Empowerment of Farmers and Fishermen
2. Agroforestry
3. The Eight National Science Congress 2003
4. Jakarta Declaration on Clean Development Mechanism
5. Challenges and Opportunities to Develop Sustainable Development

[Japan] Yohei Harashima, Faculty of International Development, Takushoku University

1. Controversy on Tax against Global Warming
2. New Regulation on Exhaust Gases from Diesel-Powered Vehicles
3. Troubles at Refuse Derived Fuel (RDF) Power Plants
4. The 3rd World Water Forum
5. Enactment of the Law for Promotion of Environmental Education

[Korea] Sang-il Hwang, Korea Environment Institute (KEI)

1. Conservation and Convenience Conflict at Mt. Bukhan
2. Schools Boycotted to Protest Nuclear Dump Site
3. A Typhoon Hits Regions of South Korea
4. Five Oil Companies Agree on Protecting Soil Near Gas Stations and Depots

[Lao PDR] Ketkeo Salichanh, Department of Environment, Science Technology and Environment Agency, Prime Minister's Office

1. The Inaugural Meeting of the National Environment Committee (NEC)
2. Provincial Environmental Action Plan and Strategy
3. National Biodiversity Strategy and Action Plan
4. National Strategy on Environment Education and Awareness

[Malaysia] Norhayati Mustapha, the Bureau of Environment Science and Technology (BEST), Institute of Strategic and International Studies (ISIS)

1. Good News for the Seas
2. Tough Actions Follow Highlands Damage
3. Ramsar Recognizes Johor Wetlands
4. Breakthrough in Water Resource Management

[Mongolia] Ayush Namkhai, Department of Environment and Sustainable Development, Ministry of Nature and the Environment

1. Household and Industrial Waste Law Enacted
2. Fourth Asia-Pacific Forum for Environment and Development
3. The Basin of Uvs Lake Placed on the World Natural Heritage List
4. 2004 Declared as Year of Water
5. No Land Reclamation Carried Out
6. Distribution and Reserves of Mongolian Khulan Horse

[Nepal] Phool Chandra Shrestha, Freelance Consultant

1. Four Ramsar Sites
2. Fertiliser from Capital's Waste from Next Year
3. Environment Issues Well Considered in Kali Gandaki 'A' Project
4. Biogas Plants Effective Carbon Dioxide Controllers
5. Nepal Needs Green Projects

[New Zealand] Claire Gibson; Neil Ericksen, The International Global Change Institute (IGCI), The University of Waikato

1. Agricultural Emissions Research Levy
2. Water Quality of Rotorua Lakes
3. Moratorium on Genetic Modification
4. Do Good Environmental Plans Make a Difference?

[The Philippines] Merlin M. Magallona, Institute of International Legal Studies, University of the Philippines

1. Thousands of Passenger Motorcycle Drivers in Protest against Clean Air Law
2. Drivers of Passenger Vehicles Inflicted with Tuberculosis Due to Air Pollution
3. Potable Water Sources Drying Up in Cebu Province
4. Environmental Clearance Application through Internet
5. Asian Development Bank Official Critical of Clean Air Law Implementation

[The Russian Far East]
Anatoly Lebedev, Non Governmental Organisation - Bureau for Regional Outreach Campaigns (BROC)

1. Oil Pipeline Development Plans and Governmental Strategy
2. "Nuclear Deputies" to Be Excluded from the Next Congress
3. Environmentally Exhaustive Fishing Quota Bidding Abolished
4. New Forestry Code

[Singapore] Koh Kheng Lian, Asia-Pacific Centre for Environmental Law (APCEL)

1. The United States of America and Singapore Free Trade Agreement, 2003 (USSFTA)
2. Singapore Infectious Diseases Act, Chapter 137
3. Malaysia-Singapore Reclamation Case and Marine Environment
4. Capacity Building

[Thailand] Tongroj Onchan, The Mekong Environment and Resource Institute (MERI)

1. Gasohol: The Bio-Fuel for Cleaner Air
2. The Potash-Mining Project in Udon Thani
3. The New Salween Logging Scandal
4. The Thai-Malaysian Gas Pipeline Disputes

[Vietnam] Pham Huu Nghi, The Institute of State and Law, National Center for Social Sciences and Humanities

1. Phong Nha-Ke Bang National Park Wins World Heritage Listing
2. Symposium on: "Environmental Protection and Sustainable Development in Viet Nam"
3. Vietnamese Scientist Awarded Blue Planet Prize
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[New Zealand] Neil Ericksen and Claire Gibson, The International Global Change Institute (IGCI), The University of Waikato

1. Review of Flood Risk Management
2. Changes to the Resource Management Act
3. New National Environmental Standards
4. Fiordland Marine Area Created

[Pakistan] Mushtaq Ahmed Memon, Institute for Global Environmental Strategies

1. Decision on Kalabagh Dam is in Sight!
2. Arsenic Monitoring and Mitigation Project for Clean Drinking Water
3. Karachi Mayor Calls on Kitakyushu Mayor for Environmental Cooperation
4. IUCN Environmental Media Award 2004 for Asia Goes to Pakistan
5. National Workshop on the Improvement of Urban Air Quality

[The Philippines] Merlin M. Magallona, Institute of International Legal Studies, University of the Philippines Law Centre

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3. Office of Environmental Ombudsman Created
4. Farmers Protest Cutting of Trees in Building Road
5. Bath-Sharing to Conserve Water

[Russia] Anatoly Lebedev, Non Government Environmental Organisation, Bureau for Regional Outreach Campaigns (BROC)

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2. New Structure – New Problems
3. Illegal Logging as Community Based Timber Industry
4. Russia Will Get Green Party

[Singapore] Koh Kheng-Lian, Asia-Pacific Centre for Environmental Law (APCEL)

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[Sri Lanka] Nalaka Gunawardene, TVE Asia Pacific

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[Vietnam] Pham Huu Nghi, Institute of State and Law, Vietnamese Academy of Social Sciences

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[Australia] Peter Woods, Australian Government Department of the Environment and Heritage

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[Cambodia] Khieu Muth, Ministry of Environment, Royal Government of Cambodia

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[Central Asia] Bulat K. Yessekin, Regional Environmental Centre for Central Asia (CAREC)

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