



ASIAN DEVELOPMENT BANK



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REGIONAL OFFICE FOR SOUTH EAST ASIA
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**UNITED NATIONS ENVIRONMENT
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REPORT

WHO/UNEP/ADB HIGH-LEVEL MEETING ON HEALTH AND ENVIRONMENT IN ASEAN AND EAST ASIAN COUNTRIES

**Manila, Philippines
24-26 November 2004**

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December 2004**

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REPORT

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ON HEALTH AND ENVIRONMENT
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Convened by:

WORLD HEALTH ORGANIZATION
UNITED NATIONS ENVIRONMENT PROGRAMME
ASIAN DEVELOPMENT BANK

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NOTE

The views expressed in this report are those of the participants in the WHO/UNEP/ADB High-Level Meeting on Health and Environment in ASEAN and East Asian Countries and do not necessarily reflect the policies of the World Health Organization.

This report has been prepared by the Regional Office for the Western Pacific of the World Health Organization for governments of Member States in the Region and for the participants in the WHO/UNEP/ADB High-Level Meeting on Health and Environment in ASEAN and East Asian Countries held in Manila, the Philippines, from 24 to 26 November 2004.

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KEYWORDS:

Environmental health/ Air quality/ Poverty/ Climate change/ Hazardous substances/ Hazardous wastes/ Technical cooperation
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SUMMARY

The World Health Organization (WHO), the United Nations Environment Programme (UNEP) and the Asian Development Bank (ADB) jointly convened the High-Level Meeting on Health and Environment in the Association of South East Asian Nations (ASEAN) and East Asian Countries, held in Manila, the Philippines, from 24 to 26 November 2004.

The objectives of the meeting were:

- (1) to review and identify major and common environmental health issues and challenges facing ASEAN countries, China, Japan, Mongolia and the Republic of Korea; and
- (2) to delineate actions by countries and partner agencies that would strengthen the effective collaboration between the health and environment sectors for sound environmental health policies and interventions.

The meeting was attended by 32 high-level officials of national government agencies in the health and environment from 14 countries: Brunei Darussalam, Cambodia, China, Indonesia, Japan, the Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, the Philippines, the Republic of Korea, Singapore, Thailand and Viet Nam. In addition, there were two observers from the National Institute for Minamata Disease, Japan; two temporary advisers from China and Japan; two consultants; and 18 members of the secretariat, including six from WHO, 10 from ADB and two from UNEP.

The proceeding of the meeting commenced with opening remarks by representatives of ADB, UNEP and WHO. In preparation for the meeting, documents entitled Environmental Health Country Profiles (EHCP) and Environmental Health Data Sheets (EHDS) were prepared. These documents provided summaries of health and environment aspects of each of the 14 countries represented at the meeting. In the context of the first objective of the meeting, the consultants presented brief summaries of the main environmental and health issues for each country represented. After this session, the participants were divided into three groups to discuss the main environmental and health issues in their countries and the value of updating the EHCP and EHDS documents on a regular basis, and to suggest improvements. The results of the group discussions were presented at a plenary session.

In addressing the second objective of the meeting, plenary sessions were held on five topics: air quality and health; water quality and health; hazardous chemicals/waste and health; poverty, conservation and health; and climate change and health. Each topic was addressed by the presentation of papers by consultants and staff from the organizing agencies, followed by plenary discussion on each topic.

As a major theme for the meeting was better collaboration and cooperation between the health and environment sectors within and across countries, a video conference was conducted to gain an appreciation of the background and the progress in Europe, with the Ministerial Conferences on Environment and Health held at regular intervals since 1987.

On the last day of the meeting, attention focused on the development of recommendations to come forward from the meeting. After intensive group and plenary discussions, the meeting made recommendations for implementation at national and regional levels, as follows:

National level

- (1) Institutional mechanisms should be established and/or strengthened to enable the health and environment sectors to work together more effectively, such as through memoranda of understanding or memoranda of agreement.
- (2) A national framework should be developed for the integrated management of environmental health (National environmental health action plans may provide a suitable model for this process).
- (3) A national forum on environment and health should be convened, involving all relevant stakeholders on a regular basis.
- (4) Programmes should be developed and implemented to promote and strengthen public awareness, education and training, and information dissemination on environmental health issues.
- (5) Mechanisms should be developed and implemented to enable more effective sharing of information between the health and environment sectors (The Environmental Health Country Profiles (EHCP) and Environmental Health Data Sheets (EHDS) could form part of this process).
- (6) Mechanisms should be developed and implemented to facilitate the integration of health and environment assessment at both the project and national levels.
- (7) Joint training activities, involving both the health and environment sectors at all levels, should be developed and implemented.
- (8) Collaborative research programmes between the environmental and health agencies should be developed and undertaken.
- (9) Environmental health topics should be incorporated in formal educational programmes at all levels and in professional development activities.

Regional level

- (1) A regional forum on environment and health, at the ministerial level, should be convened within the next 12-24 months, where appropriate, to consider adopting existing regional mechanisms.
- (2) Relevant people from countries represented should be identified to form a task force to develop a programme to progress towards the proposed regional forum.
- (3) Potential arrangements and resources should be identified and meetings organized to prepare for the proposed regional forum.
- (4) A focal point should be identified to act as a regional secretariat to provide coordination and keep member countries informed about developments.

- (5) It should be proposed that the integration of environment and health matters be included on the agenda of ASEAN ministerial meetings, the Ministerial Conference on Environment and Development (MCED) and ministerial meetings of UNEP and WHO.
- (6) A regional action plan or framework for an integrated approach to the management of environment and health issues should be developed and implemented.
- (7) A regional information source and database should be developed and implemented, to be hosted on a website to be supported by ADB, UNEP and WHO.
- (8) The EHCP and EHDS which have been prepared should be reviewed, improved and updated.
- (9) Joint activities on common problems/issues in the region should be planned and undertaken, such as research to inform policy development, training to build capacity and strategies to mitigate hazards.
- (10) Programmes aimed at providing increased capacity in information and awareness sharing and training on significant environmental health matters should be developed and implemented.
- (11) The required resources and appropriate funding mechanisms should be identified to implement these recommendations.

1. INTRODUCTION

1.1 Background information

The Member Countries of the Association of South-East Asian Nations (ASEAN), together with China, Japan, Mongolia and the Republic of Korea, have undergone rapid changes in economic development, urbanization and industrialization since the 1980s. These changes have been brought about by shifts in economic policy, which have often encouraged foreign direct investment. This development, while resulting in positive changes in the socioeconomic status of the population, has also caused negative environmental changes, leading to adverse health impacts on the people of the subregion, especially children, women and the elderly.

Every year, an estimated one million deaths can be attributed to various environmental risks in the Member Countries of ASEAN, as well as in China, Japan, Mongolia and the Republic of Korea. In recent years, WHO has collaborated with many of these countries to develop environmental health policies and strategies; assess the health impacts of priority environmental hazards; support air and water quality monitoring and health surveillance; improve access to information on chemicals and other environmental hazards; and support applied research, human resources development, programme management, public awareness and advocacy in environmental health. The United Nations Environment Programme (UNEP), other United Nations agencies, the Asian Development Bank (ADB) and other multilateral and bilateral partner agencies have also contributed to the development of environmental health programmes in these countries.

However, more needs to be done to improve collaboration between the health and environment agencies within these countries, as well as between the countries, in strengthening the environmental health sector. In many countries, the responsibilities for environmental health programmes are shared by health and environmental agencies, and coordination and collaboration is required between them to further the objectives of intersectoral engagement in achieving environmental and health objectives. The socioeconomic interdependency of the ASEAN and East Asian countries has resulted in increased interaction between the countries in industrial development, trade and commerce, communication and travel, and environmental and health protection. Collaboration among the countries is needed to share solutions to common local environmental health problems, as well as to solve those environmental health problems that go beyond country borders.

On this basis, it was concluded that a forum was needed to bring together high-level officials from both health and environment agencies in these countries to discuss major environmental health challenges and potential solutions, and to identify necessary actions by national agencies and international partner organizations. Thus, a meeting of high-level officials from the countries was proposed and took place in November 2004 in Manila, the Philippines.

1.2 Objectives

The objectives of the meeting were:

- (1) to review and identify major and common environmental health issues and challenges facing ASEAN countries, China, Japan, Mongolia and the Republic of Korea; and
- (2) to delineate actions by countries and partner agencies that would strengthen the effective collaboration between the health and environment sectors for sound environmental health policies and interventions.

1.3 Participants

The meeting was attended by 32 participants who were high-level officials of national government agencies in the health and environment sectors involved in, or responsible for, the assessment and management of health and environmental impacts at the national level. The participants were from Brunei Darussalam, Cambodia, China, Indonesia, Japan, the Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, the Philippines, the Republic of Korea, Singapore, Thailand and Viet Nam. Observers from the National Institute for Minamata Disease, Japan, were also present. There were two temporary advisers at the meeting: Dr Michinori Kabuto of the National Institute of Environmental Studies, Japan; and Dr Jin Yinlong of the Institute of Environmental Health and Related Product Safety, China. Two consultants, Dr Genandrialine Peralta, Chair and Associate Professor, Department of Chemical Engineering, University of the Philippines, and Professor J. Spickett, Dean of Graduate Studies and Professor of Environmental and Occupational Health, Division of Health Sciences, Curtin University of Technology, Western Australia, were also recruited. The secretariat comprised 18 members, including six from various offices of WHO, 10 from ADB and two from UNEP. A list of participants, temporary advisers, observers, consultants and secretariat members is provided in Annex 1.

1.4 Organization

The meeting programme is provided in Annex 2, and a list of documents distributed during the workshop in Annex 3. The documents include the Environmental Health Country Profiles (EHCP) and the Environmental Health Data Sheets (EHDS) on data available on health status and indicators of potential environmental hazards. The profiles provide background information for each country, information on health statistics and indications of the status of environmental factors that could impact potentially on the health of the population. Copies of the profiles can be obtained upon request from the WHO Regional Office for the Western Pacific.

The meeting selected a Chairperson, Vice-chairperson and Rapporteur, as follows:

Chairperson	-	Dr Su Zhi, China
Vice-chairperson	-	Mr Bambang Purwono, Indonesia
Rapporteur	-	Dr Desiree Narvaez, the Philippines

1.5 Opening remarks

The meeting commenced with opening remarks from representatives of ADB, UNEP and WHO. The initial address was made by Mr Geert van der Linden, Vice-President, Knowledge Management and Sustainable Development, ADB. He commenced by recognizing the significance of the joint organization of the meeting by the three agencies and emphasized the importance of the challenges in finding the root causes of problems, rather than just addressing the symptoms.

Mr van der Linden stated that the home and work environments of the poor threaten their health, and that ill health increases poverty, which can result in further environmental degradation. The burden of disease due to environmental risks accounts for a high proportion of deaths in the region. The Millennium Development Goals (MDGs) have given the international community a structure to improve living standards across the world by 2015, and accelerating the improvement in environmental health conditions would support several of the MDGs.

The health and environment sectors have tended to act separately given the traditional institutional arrangements. However, many now appreciate the need for innovation, collaboration and an integrated approach, both inside and outside the health and environment sectors. The timing of the discussion and the prospects for moving forward are excellent, but action is needed to establish greater collaboration to create a new framework and foster innovation to achieve the objectives.

Mr Mahesh Pradhan, Environmental Affairs Officer, gave the second opening address on behalf of the UNEP Regional Office for Asia and the Pacific. He noted that the majority of the world's population lives in this region and the important factors that are driving environmental degradation in the region are high population density, economic growth, rapid industrialization, urbanization and widespread poverty. The environmental outcomes of concern include poor water quality and supply, inadequate sanitation and waste disposal, vectorborne diseases, air pollution, chemical exposures, climate change and degraded urban environments.

Mr Pradhan outlined the links between the environment and health and the ability to prevent deaths, disabilities and diseases using more proactive prevention strategies. UNEP has, in recent times, adopted an ecosystem approach to human health. He briefly discussed several examples of the synergies between ecosystem management and improved health, and outlined the major initiatives being taken by the United Nations system since the World Summit on Sustainable Development in 2002.

The final speech during the opening ceremony was given by Dr Shigeru Omi, Regional Director, WHO Regional Office for the Western Pacific. He discussed the history of the influence that health and civilization have on each other. From the time hunter-gathers started to settle in villages, the potential for human-to-human disease transmission increased. This was the first wave of disease outbreaks. The second wave occurred as more people came into contact with one another through trade, travel and military operations. Dr Omi gave the example of bubonic plague, which spread throughout Europe and east to China and Japan. In the 16th and 18th centuries more transoceanic travel occurred, which resulted in the spread of diseases such as smallpox and measles to the Americas and the Pacific, killing around 90% of the native population. At the same time, diseases such as syphilis were transferred to Europe. Nowadays, new infectious diseases are emerging which are of major concern because of their potential for rapid spread around the world.

He noted the dramatic changes in the environmental determinants of health over the last 50 years, as well as the changes in disease patterns and environmental risks in time and space. The socioeconomic developments in the ASEAN and East Asian countries are becoming increasingly interdependent and there is an increase in the complexity of linkages between socioeconomic development and environmental and health factors. Dr Omi then noted that the time had now arrived where these issues needed to be discussed in a collaborative environment, and he concluded by declaring the meeting open.

Full texts of the opening ceremony speeches are provided in Annex 4.

2. PROCEEDINGS

2.1 Summaries of Environmental Health Country Profiles (EHCP) and Environmental Health Data Sheets (EHDS)

Dr Peralta introduced the session by discussing the background, purpose and structure of both the EHCP and EHDS. The process of collecting data as well as the sources of information and some of the difficulties encountered were also discussed.

This was followed by brief presentations on the summaries of information obtained from the EHCP. Many communicable diseases, such as diarrhoea, cholera, typhoid, malaria and respiratory diseases, are still among the leading causes of illness and death in most ASEAN countries. The following priority issues were identified: solid waste management; seasonal smoke/haze from regional forest fires; urban growth; water pollution from domestic and industrial sources; deforestation; over-fishing; siltation of rivers; wastewater collection and treatment; high use of wood as a fuel and charcoal consumption; mine tailings; urban air pollution; noise pollution; road injuries and traffic congestion.

Professor Spickett then presented summaries of the EHCP for China, Japan, Mongolia and the Republic of Korea. The general issues associated with each country were presented, noting that, while one of the main issues for China and Mongolia is increasing urbanization, in the Republic of Korea, the population trend is more towards suburban developments. The main environmental issues in all four countries are of concern, with increasing vehicle traffic being an increasing problem. Indoor air pollution is a more substantial issue for China and Mongolia. The health statistics show that lifestyle-related diseases are important in Japan and the Republic of Korea. The main priorities for these four countries are air pollution; waste disposal; water supply; hygiene and sanitation in rural areas; climate change; and chemicals in the environment.

2.2 Summaries of the three group discussions

The meeting was divided into three groups:

Group A – Cambodia, Lao People’s Democratic Republic, Myanmar, Thailand, Viet Nam

Group B – Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore

Group C – China, Japan, Mongolia, the Republic of Korea

Each group discussed the main environmental and health issues in the countries of the region and the advantages and disadvantages of the EHCP and EHDS as tools for assisting in identifying priority issues. Below are summaries of the results of the discussion sessions.

2.2.1 Group A

The common environmental pollution problems are: contamination of surface and ground water by chemicals; high use of wood as a fuel and charcoal consumption; low coverage of rural water supply and sanitation; industrial pollution; road injuries and traffic congestion; and rapid urban population growth. The group consider the EHCP and EHDS generally to be of value, but needing more work in terms of the instruments themselves (i.e. scope of indicators and their relevance to countries) and also requiring a commitment to keep them updated on a regular basis.

2.2.2 Group B

The main health issues, as noted by the group, are: diarrhoea; acute respiratory disease; malaria and other vectorborne diseases; cardiovascular disease; acute poisoning; and traffic-related injuries. The main environmental issues are: water supply; sanitation; indoor and outdoor air pollution; pesticides; solid and hazardous waste management; and changes to the ecosystem, including climate change. The group discussed the linkages between the health and environment issues identified. They consider the EHCP and EHDS to be of value and that they could be used for benchmarking, information sharing, advocacy and self-assessment. However, some limitations are noted. The group also recognize the challenges to be met in continuing the process, improving data collection and updating the system for comparability among countries.

2.2.3 Group C

The main environmental and health issues are: urban air pollution from motor vehicles; industry and power generation; indoor air pollution from solid fuel use in rural areas and indoor air pollution in buildings; transboundary air pollution; water quality and the need to improve surveillance; solid waste; and chemical safety. The group recognize the need to develop better linkages between environmental quality surveillance and disease surveillance and the need, in some cases, for external assistance to facilitate the process. The EHCP and EHDS are considered useful. They also note the need for stronger collaboration between the health and environment sectors.

2.3 Summaries of presentations on individual topics A to E

At each topic session, speakers presented an overview of environmental issues associated with the topic, followed by comments and discussions by the participants. The discussion sessions were guided by the following points.

- What are the barriers/challenges to the formulation and implementation of adequate environmental health policy initiatives and responses (e.g. identifying environmental health attributes, policies and processes, institutional issues, economic and market forces, monitoring and capacity limitations, budgetary processes)?
- What is the progress in the current responses?
- What options are there to accelerate progress on these issues? Which of the options are likely to be achievable in the short to medium term?
- How can progress be monitored and evaluated?

2.3.1 Topic A: Air quality and health

The session commenced with coverage of indoor air quality by Professor Spickett. He discussed the issue of the use of solid fuel and the related substantial health burden generated, with the links with poverty being noted in particular. The more modern exposures to indoor air pollution by volatile organic compounds and potential links to asthma were also mentioned. WHO strategies to reduce the extent of the indoor air pollution related disease burden were discussed.

Mr C. Huizenga, ADB Air Quality Consultant, covered the urban air pollution part of the topic. The main point emphasized was that the linkage between air quality and health is becoming increasingly well established. Health officials can and should work more closely with environmental regulators to ensure that additional air quality regulations are put in place and are implemented effectively. Substantive additional work is required on the linkage between air quality and poverty before this can be translated into pro-poor air quality management policies. The work started by the Health Effects Institute's (HEI) Public Health and Air Pollution (PAPA) programme, under the Clean Air Initiative-Asia umbrella, will help to develop such approaches.

Mr M. Iyngararasan, from the UNEP Regional Resource Centre for Asia and the Pacific, highlighted the driving forces behind regional air pollution and its implications on health and food security. He identified the Malé Declaration on transboundary air pollution for South Asia, the East Asian Network on Acid Deposition (EANET), and the ASEAN Haze Agreement as existing intergovernmental mechanisms to tackle regional air pollution issues. He emphasized the need for capacity building under the existing intergovernmental initiatives and a proactive approach focused on prevention.

During the discussion session it was stated that changes need to be made in policies related to transport to reduce the impact of motor vehicles on air pollution (e.g. establishment of standards, compliance monitoring, awareness-raising campaigns on vehicle maintenance, consideration of economic implications). It was noted that air-monitoring programmes are only carried out in relatively few places, but where they are in place, they need to have clearly defined

outcome objectives or they will not serve any useful function. Relatively little assessment of indoor air quality has been carried out, but it is recognized as a problem in both developing and developed countries in the region. The problems which emerged a few years ago in regard to haze from forest fires was the subject of a meeting of ministers responsible for the environment in the ASEAN group earlier in November 2004 in Ha Noi, Viet Nam.

2.3.2 Topic B: Water quality and health

Mr T. Thompson, the Regional Adviser in Environmental Health, WHO Regional Office for the Western Pacific, initiated the session with a presentation on linkages between water, environment and health in ASEAN and East Asian countries. He pointed out the need for better understanding of the disease burden due to unsafe water, sanitation and hygiene in countries of the region, since data on incidence of water-related diseases, notably diarrhoea, are not available in all countries, and the absence of data from a few countries may lead to underestimation of the importance of the issue from a regional perspective. In most countries of the region in which diarrhoea is a reportable illness, it is one of the leading causes of morbidity and mortality.

Although access to improved drinking water has increased to 79% of the population in recent years, some 415 million persons in the region still lack this basic necessity of life. With sanitation coverage at only 50%, nearly 1 billion persons in the region lack adequate means of excreta disposal. Of all the people worldwide who lack access to improved drinking water, two out of five live in ASEAN and East Asian countries. The same is true with respect to sanitation. Globally, it is estimated that 1.8 million persons per year, mostly children, die due to water-related illnesses. It appears likely that a large proportion of these deaths occur in ASEAN and East Asian countries. Additional research is needed in some countries in which diarrhoea is not a reportable illness.

Chemical contaminants in drinking water are also an issue in several countries of the region, where there is a need to step up investigations on human exposure to naturally occurring chemicals, such as arsenic and fluoride in drinking water. There is also a need to strengthen collaboration between health and environment authorities to protect sources of drinking water from man-made pollutants discharged from industries, human settlements, agriculture and other sources.

Mr W. L. Arriens, Lead Water Resources Specialist, ADB, discussed the linkages between water and poverty, pointing out that poor communities suffer greater exposure to agents that cause disease and that poverty increases their susceptibility to disease. There is a need to sharpen the pro-poor focus of national policies and actions to maximize the contribution of water management to poverty reduction. One strategy is to improve knowledge and advocacy in order to build consensus for increased sector investments, especially at the local level.

During the discussion session, participants noted the importance of local government bodies in improving water and sanitation coverage. Significant increases in coverage have been achieved in several countries of the region in recent years through partnerships involving health and environment authorities and local governments. Participants also emphasized the important role of hygiene in optimizing the health outcomes associated with water-sector investments and stressed that, while the development of water and sanitation infrastructure and services may be the primary responsibility of other government bodies, health authorities should play an active role in promoting hygiene. Participants agreed with Mr Arriens about the importance of

community empowerment and capacity building, particularly in implementing rural water supply and sanitation projects, where the responsibility to manage, operate and maintain the water and sanitation facilities are delegated to the beneficiary communities. They also expressed their support for cost-sharing and cost-recovery principles.

2.3.3 Topic C: Hazardous chemicals/waste and health

The presenters in this session were Mrs F. Ouane, First Scientific Affairs Officer, UNEP, and Dr Peralta, who spoke on chemical safety and hazardous waste, with brief additions by Dr J. Stober, Executive Secretary, Intergovernmental Forum on Chemical Safety (IFCS), and Dr Narvaez.

In their presentations, Dr Peralta and Mrs Ouane mentioned the key issues of pesticides, industrial chemicals and hazardous waste, health care waste, chemical emergencies, poverty and the burden of chronic disease, which have an enormous impact on employment, trade and economic growth all over the world. Cancer, birth defects, impaired cognitive development, neurological disorders and other diseases are reported to be associated with exposure to certain chemicals, especially among farmers and their families, women and children, industrial workers, health care workers, and communities living close to industrial areas. Hazardous waste management, including health care waste, still requires considerable attention in this region, while existing agreements and initiatives at the national and international levels have to be implemented properly.

Dr Stober introduced the Intergovernmental Forum on Chemical Safety, a multisectoral forum to identify priorities, develop strategies and build partnerships for chemical safety. Dr D. Narvaez reported on the recommendations of the Asia-Pacific Meeting for the Intergovernmental Forum on Chemical Safety, held in Manila, the Philippines, from 22 to 23 November 2004.

2.3.4 Topic D: Poverty, conservation and health

This session was presented by Dr D. McCauley and Mr P. Steele from ADB. They emphasized the limited dialogue between the health and environment communities, especially concerning ecosystems, and noted the need for health and environment authorities to collaborate in tackling environmental issues and demonstrating the health benefits of proper ecosystem management. The presenters classified the key linkages among poverty, health and conservation under three broad areas: (1) immediate or direct (i.e. impact on nutrition, natural resources and traditional medicines; (2) medium-term or indirect (i.e. changes in vectorborne diseases and ecological services that matter to the poor); and (c) longer-term (i.e. links to genetic resources for food security and pharmaceuticals). They also mentioned that one of the four themes in the 3rd International Union for Conservation of Nature and Natural Resources (IUCN) World Conservation Forum was Health, Poverty and Conservation. A joint ADB-IUCN study on this topic, spanning ten countries of South and East Asia, was described, together with preliminary findings that support the linkages between ecosystems management and human health. It was concluded that important health problems, such as nutritional deficits, exposure to diseases and the lack of medicines could be directly or indirectly traced to the decline in the health of ecosystems. Hence such degradation of natural systems and loss of their services should be tackled as a root cause of health risks.

During the discussion period, Dr M. Sahani, Institute for Medical Research, Malaysia, shared her country's experiences during the outbreak of Nipah virus from bats, which resulted in the massive destruction of many pigs and large-scale pig farms. The Government was compelled to slaughter about a million pigs to prevent further transfer of virus to humans. It was also noted in the discussion that some traditional medicines use plant and animal species that are already threatened or endangered.

2.3.5 Topic E: Climate change and health

Dr H. Ogawa, Regional Adviser in Healthy Settings and Environment, WHO Regional Office for the Western Pacific, presented an overview of the issues and evidence of health impacts of climate change, as well as mechanisms and strategies to support capacity building in countries. He presented the forecast for global surface temperature increases over this century and the potential resulting health impacts. As examples of such health impacts, he discussed mortality and morbidity due to heatwaves, vectorborne diseases (e.g. dengue fever) and extreme weather (e.g. storms, floods and droughts). He further presented the international mechanisms and strategies to support mitigation and adaptation measures, including the UN Framework Convention on Climate Change and its Kyoto Protocol, the Intergovernmental Panel on Climate Change, the Inter-Agency Committee on the Climate Agenda (IACCA), and the Inter-Agency Network on Climate and Human Health. He suggested that a multisectoral inter-agency mechanism, similar to IACCA, should be established at the national level and that national assessments, including health impacts, should be undertaken.

Following Dr Ogawa's overview paper, Dr Kabuto outlined a research project on climate change and health in Japan, focusing on heatwaves in the country in the summer of 2004. Dr Sahani then presented a project recently undertaken to develop national response strategies to climate change in Malaysia.

During the discussion session, it was noted that the linkage between climate change and health is a relatively new issue to most countries. However, some countries have initiated national assessment studies, involving a number of different sectors. Further awareness-raising and public communication activities will need to be undertaken.

2.4 Summary of video conference on the European experience with the Ministerial Conference on Health and Environment

Dr L. Licari, Regional Adviser in Environment and Health, WHO Regional Office for Europe, gave a presentation, through a video conference, on experiences in organizing a series of ministerial conferences on environment and health in Europe. She highlighted the importance of engaging different stakeholders, and the need to have champions to promote the organization of such a high-level regional forum. Dr C. Dora, WHO Headquarters, who was previously with the European Regional Office, supplemented Dr Licari's presentation, using an example of organizing a ministerial conference on transport, environment and health.

Following these presentations, a brief discussion took place between the presenters and the meeting participants. One of the points repeated was that a good concept paper should be prepared to initiate the process of engaging different stakeholders if this is to be considered in Asia.

2.5 Group discussion on recommendations

Group work was conducted at the country and regional levels to identify possible mechanisms and innovative ideas to strengthen intersectoral collaboration. The first task was to discuss, among the participants from the same country, the main issues and challenges and the potential mechanisms and strategies to address them in that country. The second was to discuss, in three randomly selected groups, recommended actions at the national as well as the regional level. The results of the group work were presented at plenary, and suggested actions were summarized, as presented in the recommendations section (section 3.2).

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 Conclusions

3.1.1 The presentation of the EHCP and EHDS informed participants about the purpose and structure of the instruments designed to give an overview of the environmental and health status of the countries. The information from the data collected enabled participants to discuss the major environmental and health issues in the countries. Discussion on the usefulness of the instruments concluded that they are of value and should be reviewed, revised and updated on a regular basis. The sections covering legal policy, institutional structure and human resources are not as complete as the other sections. Many of the participants indicated that they would be checking and revising the information for their particular countries in the short term.

3.1.2 The meeting discussed the linkages between the environment and health through the sessions on: air quality and health; water quality and health; hazardous chemicals/waste and health; poverty conservation and health; and climate change and health. The papers presented by consultants and staff from the three agencies organizing the meeting provided information for participants to discuss the main issues linking environment and health, and strategies to address them. Barriers to the implementation of control measures and experiences from individual countries were also discussed. The participants deliberated on recommended actions that need to be taken at national and regional levels.

3.2 Recommendations

After discussing priority issues linking health and environment in each country, as well as in the region, and reviewing the ways in which regular joint meetings of ministers of health and environment had been organized in Europe, the participants from the 14 countries, temporary advisers, consultants and staff members of WHO, UNEP and ADB deliberated on recommendations for actions that should be taken to enhance collaboration between the health and environment sectors and strengthen capacity to address the priority issues at the national as well as at the regional level.

These recommendations are given below. The recommended actions at the national level are mainly directed towards the health and environment agencies in countries, with support from international partner agencies where appropriate. Those recommendations pertaining to the regional level are actions that should be led by international partner agencies in close collaboration with the countries.

3.2.1 National level

- (1) Institutional mechanisms should be established and/or strengthened to enable the health and environment sectors to work together more effectively, such as through memoranda of understanding or memoranda of agreement.
- (2) A national framework should be developed for the integrated management of environmental health (National environmental health action plans may provide a suitable model for this process).
- (3) A national forum on environment and health should be convened, involving all relevant stakeholders on a regular basis.
- (4) Programmes should be developed and implemented to promote and strengthen public awareness, education and training, and information dissemination on environmental health issues.
- (5) Mechanisms should be developed and implemented to enable more effective sharing of information between the health and environment sectors (The Environmental Health Country Profiles (EHCP) and Environmental Health Data Sheets (EHDS) could form part of this process).
- (6) Mechanisms should be developed and implemented to facilitate the integration of health and environment assessment at both the project and national levels.
- (7) Joint training activities, involving both the health and environment sectors at all levels, should be developed and implemented.
- (8) Collaborative research programmes between the environmental and health agencies should be developed and undertaken.
- (9) Environmental health topics should be incorporated in formal educational programmes at all levels and in professional development activities.

3.2.2 Regional level

- (1) A regional forum on environment and health, at the ministerial level, should be convened within the next 12-24 months, where appropriate, to consider adopting existing regional mechanisms.
- (2) Relevant people from countries represented should be identified to form a task force to develop a programme to progress towards the proposed regional forum.
- (3) Potential arrangements and resources should be identified and meetings organized to prepare for the proposed regional forum.
- (4) A focal point should be identified to act as a regional secretariat to provide coordination and keep member countries informed about developments.
- (5) It should be proposed that the integration of environment and health matters be included on the agenda of ASEAN ministerial meetings, the Ministerial Conference on Environment and Development (MCED) and ministerial meetings of UNEP and WHO.
- (6) A regional action plan or framework for an integrated approach to the management of environment and health issues should be developed and implemented.
- (7) A regional information source and database should be developed and implemented, to be hosted on a website to be supported by ADB, UNEP and WHO.
- (8) The EHCP and EHDS which have been prepared should be reviewed, improved and updated.

- (9) Joint activities on common problems/issues in the region should be planned and undertaken, such as research to inform policy development, training to build capacity and strategies to mitigate hazards.
- (10) Programmes aimed at providing increased capacity in information and awareness sharing and training on significant environmental health matters should be developed and implemented.
- (11) The required resources and appropriate funding mechanisms should be identified to implement these recommendations.

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PROGRAMME OF ACTIVITIES

24 NOVEMBER 2004, WEDNESDAY

- 08:00 – 08:45 Registration
- 09:00 – 10:00 Opening ceremony
- Welcome remarks by Mr Geert van der Linden, Vice-President, Knowledge Management and Sustainable Development, Asian Development Bank, Manila
 - Opening remarks by Mr Mahesh Pradhan, Environmental Affairs Officer, United Nations Environment Programme (UNEP), Bangkok
 - Opening address by Dr Shigeru Omi, Regional Director, WHO Regional Office for the Western Pacific, Manila
 - Selection of meeting officers
- 09:40 – 10:00 Group photograph and tea break
- 10:00 – 10:30 Self-introduction of participants, representatives, observers
- Introduction to the meeting (objectives, programme of activities) and other administrative matters
- Dr H. Ogawa, Regional Adviser in Healthy Settings and Environment, WHO Regional Office for the Western Pacific
- Objective 1: Review and identify key environmental health issues and challenges common to ASEAN countries, People's Republic of China, Japan, Mongolia and the Republic of Korea**
- 10:30 – 11:30 Summary of environmental health country profiles - Presentation by WHO consultants
- 11:30 – 12:30 Group Discussion 1 (in three groups) on environmental health issues and challenges in the region

Annex 2

Group A – Cambodia, the Lao People's Democratic Republic,
Myanmar, Thailand, Viet Nam

Philippines, Group B – Brunei Darussalam, Indonesia, Malaysia, the
Singapore

Group C – People's Republic of China, Japan, the Republic of Korea,
Mongolia

12:30 – 13:30 Lunch

13:30 – 14:30 Plenary Session: Presentation of the results of Group Discussion 1

Objective 2: Delineate actions by countries and partner agencies that would strengthen the effective collaboration between the health and environment sectors for sound environmental health policies and interventions

Plenary Session: Presentations and discussions

14:30 – 16:30 Topic A: Air quality and health
(outdoor air and indoor air pollution, regional air pollution)

16:30 – 17:30 Reception (hosted by WHO)

25 November 2004, Thursday

08:00 – 10:00 Topic B: Water quality and health
(drinking water and sanitation, ground water contamination)

10:00 – 10:20 Tea break

10:20 – 12:00 Topic C: Hazardous chemicals/waste and health
(chemical safety, waste disposal, persistent organic pollutants)

12:00 – 13:00 Lunch

13:00 – 14:00 Topic D: Poverty, conservation and health

14:00 – 15:00 Topic E: Climate change and health
(heat wave, vectorborne diseases)

15:00 – 15:20 Tea break

15:20 – 16:30 Group Discussion 2 (in three groups) on recommended actions to
address issues and challenges by participating countries
and ADB, UNEP, WHO and other
development partners

16:30 – 17:30 Video conference on the European experience on
Ministerial Conference on Health and Environment

26 November 2004, Friday

08:00 – 09:30 Group Discussion 2 (continued)

09:30 – 10:30 Plenary Session: Presentation of the results of Group Discussion 2

10:30 – 11:30 Tea break (Secretariat to work on draft conclusions of the meeting)

11:30 – 12:30 Plenary Session: Presentation and adoption of draft conclusions

12:30 – 12:50 Closing ceremony

LIST OF DOCUMENTS

1. WPR/ICP/HSE/4.3/001/EHH(1)/2004/IB/1 - Information Bulletin No. 1
2. WPR/ICP/HSE/4.3/001/EHH(1)/2004/IB/2 - Tentative List of Participants, Temporary Advisers, Consultants, Observers/Representatives, and Secretariat
3. WPR/ICP/HSE/4.3/001/EHH(1)/2004.1 - Provisional Agenda
4. WPR/ICP/HSE/4.3/001/EHH(1)/2004.1a - Tentative Programme of Activities
5. WPR/ICP/HSE/4.3/001/EHH(1)/2004.2 - Environmental Health Country Profile – Brunei Darussalam
6. WPR/ICP/HSE/4.3/001/EHH(1)/2004.3 - Environmental Health Country Profile – Cambodia
7. WPR/ICP/HSE/4.3/001/EHH(1)/2004.4 - Environmental Health Country Profile – People's Republic of China
8. WPR/ICP/HSE/4.3/001/EHH(1)/2004.5 - Environmental Health Country Profile – Indonesia
9. WPR/ICP/HSE/4.3/001/EHH(1)/2004.6 - Environmental Health Country Profile – Japan
10. WPR/ICP/HSE/4.3/001/EHH(1)/2004.7 - Environmental Health Country Profile – Lao People's Democratic Republic
11. WPR/ICP/HSE/4.3/001/EHH(1)/2004.8 - Environmental Health Country Profile – Malaysia
12. WPR/ICP/HSE/4.3/001/EHH(1)/2004.9 - Environmental Health Country Profile – Mongolia
13. WPR/ICP/HSE/4.3/001/EHH(1)/2004.10 - Environmental Health Country Profile – Myanmar
14. WPR/ICP/HSE/4.3/001/EHH(1)/2004.11 - Environmental Health Country Profile – Philippines
15. WPR/ICP/HSE/4.3/001/EHH(1)/2004.12 - Environmental Health Country Profile – Republic of Korea
16. WPR/ICP/HSE/4.3/001/EHH(1)/2004.13 - Environmental Health Country Profile – Singapore
17. WPR/ICP/HSE/4.3/001/EHH(1)/2004.14 - Environmental Health Country Profile – Thailand

Annex 3

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| 18. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.15 - | Environmental Health Country Profile – Viet Nam |
| 19. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.16 - | Ambient Air Quality and Health |
| 20. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.16a - | Ambient Air Quality and Health – (Powerpoint presentation) |
| 21. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.17 - | Indoor Air Quality Component |
| 22. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.17a - | Indoor Air Quality Component (Powerpoint presentation) |
| 23. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.18 - | Regional Air Pollution |
| 24. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.18a - | Regional Air Pollution (Powerpoint presentation) |
| 25. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.19 - | Water, Poverty, Health and Environment in ASEAN and East Asian Countries |
| 26. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.19a - | Water, Poverty, Health and Environment in ASEAN and East Asian Countries (Powerpoint presentation) |
| 27. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.19b - | Water and Poverty (Powerpoint presentation) |
| 28. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.20 - | Chemical safety, hazardous waste and health |
| 29. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.20a - | Chemical safety, hazardous waste and health (Powerpoint presentation) |
| 30. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.20b - | Reducing Adverse Health and Environmental Impacts of Chemicals (Powerpoint Presentation) |
| 31. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.20c - | Intergovernmental Forum on Chemical Safety (Powerpoint presentation) |
| 32. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.20d - | Recommendation of the Asia Pacific Meeting for the Intergovernmental on Chemical Safety |
| | Forum | |
| 33. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.21 - | Poverty, Health and Conservation: Healthy Ecosystems, Healthy People |
| 33. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.21a - | Poverty, Health and Conservation: Healthy Ecosystems, Healthy People (Powerpoint presentation) |
| 34. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.22 - | Climate Change |
| 35. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.22a - | Climate change (Powerpoint presentation) |
| 36. | WPR/ICP/HSE/4.3/001/EHH(1)/2004.23 - and Health" | Research on "Climate Change in Japan |

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37. WPR/ICP/HSE/4.3/001/EHH(1)/2004.23a - Research on "Climate Change and Health" in Japan
(Powerpoint presentation)
38. WPR/ICP/HSE/4.3/001/EHH(1)/2004.24 - Climate Change and Dengue in Singapore
39. WPR/ICP/HSE/4.3/001/EHH(1)/2004.24a - Climate change and dengue in Singapore
(Powerpoint presentation)
40. WPR/ICP/HSE/4.3/001/EHH(1)/2004.25 - National Response Strategies to Climate Change and the Impact of Climate Change on Public Health in Malaysia
41. WPR/ICP/HSE/4.3/001/EHH(1)/2004.25a - National Response Strategies to Climate Change and the Impact of Climate Change on Public Health in Malaysia
(Powerpoint presentation)
42. WPR/ICP/HSE/4.3/001/EHH(1)/2004.26 - European experience on Ministerial Conference in Health and Environment
(Powerpoint presentation)

**High-Level Meeting on Health and Environment in ASEAN
and East Asian Countries**

Opening Remarks

by

Geert van der Linden

**Vice President, Knowledge Management & Sustainable Development
*Asian Development Bank***

24 November 2004

Manila

Introductory Comments

Dr. Shigeru Omi, Mr. Mahesh Pradhan, distinguished guests, ladies and gentlemen,

It gives me great pleasure to welcome you to ADB in Manila for this 3-day High Level Meeting on Health and Environment.

Let me start by thanking the World Health Organization (WHO) and the United Nations Environment Programme (UNEP) with whom we are organizing this event. While we are all too aware of the critical link between the environment, poverty and health, it is seldom that an effort has been made at this level to attack the issue from a strategic perspective.

Environment, Poverty and Health - Challenges

You may be familiar with the parable about a group of villagers who see a baby floating down the river near where they were working. Someone quickly rushes out and rescues the baby, taking it home to care for it. But the next day there are two babies floating down the river. Again, the infants are quickly rescued. Each day more babies float by, and soon the entire village is involved in the business of rescuing them from the stream. Suddenly one person starts to walk away from the group still on shore. Accusingly they shout, "where are you going?" The response: "I'm going upstream to stop whoever's throwing babies into the river." This story illustrates the challenge facing all of us today: the challenge of finding the root causes of problems, rather than simply addressing the symptoms.

Nowhere is this more important than in the area of health and environment. We know that the poor are most likely to be affected by the environment. Their homes and work environments often threaten their health, and this unhealthy environment is the entry point for a vicious circle of ill health, increasing poverty and further environmental degradation.

Recent estimates suggest that premature death and illness due to major environmental risks account for a fifth of the total burden of disease worldwide, and even more in developing countries. For example, a large percentage of households in Asia, especially in the rural areas, use biomass fuel for cooking

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and heating without sufficient ventilation - causing respiratory impairment, especially to women and children.

Urban environments have their own air pollution risks. Due to urbanization, industrialization and motorization, the level of air pollutants in many of Asia's major cities is alarmingly high. Exposure to particulate matter, for example, exceeds US allowable standards for health by more than 70% in Shanghai, and is more than double the air quality standards in Beijing.¹ And, with People's Republic of China expected to have 100 million vehicles by 2020, the environmental and health costs are staggering.

Safe water supply and sanitation are also major issues for many people in Asia. Potable water, a basic human need, remains unavailable to one in 3 people in Asia. And one in two do not have access to sanitation. The continued depletion and pollution of water bodies is increasing the incidence of waterborne diseases in rural and urban areas alike.

3. Prospects for Partnerships in Asia

There is no doubt about the link between environment, health and poverty. The question is: how can we better coordinate our efforts and put an end to this vicious circle?

The international community has mobilized around the Millennium Development Goals, setting targets to improve living standards around the world by 2015. And although the MDGs do not sufficiently articulate this, it is clear that progress on the key health goals – particularly for child health, access to water and sanitation and environmental sustainability – will be accelerated through improved environmental health conditions.

As we know, health and environmental issues have tended to be treated separately due to traditional institutional arrangements both in government and academic areas. However, many jurisdictions are now recognizing the need for innovative, collaborative and integrated approaches within and outside the health sector.

The new public health model emphasizes well-being and quality of life, and prevention of illness as much as treating sickness. Re-establishing the link between the medical sciences on the one hand, and the natural and social sciences on the other is critical. In this respect, I commend the work of the World Health Organization in bringing together health and environment ministries, as well as intergovernmental and civil society organizations, to address these issues in Europe. And, I thank the WHO as well for initiating this meeting to bring a similar approach to Asia and the Pacific.

I believe the timing of this discussion and the prospects for moving forward are excellent. Deeper integration of regional and global economies, continued globalization of trade and investment; and increased public concern over the environmental, social, political, and economic consequences of this integration

¹ World Bank. 2003. *WDI 2003*. Washington, D.C.

could provide a natural entry point for influencing policies in the region. Similarly, a growing and more urbanized population, with more sophisticated knowledge of the issues and better access to information will be looking to their governments for integrated solutions to the growing health and environment crisis.

There is a window of opportunity in front of us – but we must act quickly to use it towards greater collaboration, to create a new framework and foster innovation within and outside our traditional sectoral boundaries. If we can do this, I am confident we can make greater progress on both sustainable development and poverty reduction.

The Kiribati example shows it can be done. This isolated island Republic faced huge challenges in providing fresh water and sanitation sufficient for its population. With an ADB loan and several technical assistance grants, Kiribati created a cooperative partnership among government agencies, NGOs, cooperatives and community groups to provide a sustained program of improvements in water supply, sanitation services, solid waste disposal and environmental conservation. The people of Kiribati have gained not only improvements to their living conditions, but also a new understanding of the links between environment and health.

Action and Way Forward

In closing, let me briefly outline my expectations and hopes for this meeting. One objective, of course, is to identify the major and common environmental health challenges that the ASEAN and other East Asian countries face. But we also need, now, to discuss and develop specific responses to these health and environment challenges that we have identified. Raising issues is not enough: we must recognize shared benefits and responsibilities and propose concrete solutions and actions.

We--ADB, UNEP and WHO—as international development organizations also have key roles to play. We must share information about our strategies, programs, and projects, and mobilize resources in a concerted way to collaborate wherever possible in responding to environmental health challenges.

I hope that the deliberations in the next three days will lead to better understanding of the interlinked poverty, health, and environment issues and will generate useful discussions that will effect action and change through shared ownership and collaboration among all stakeholders.

Sound environmental management and environment-related health policies and initiatives are among ADB's priorities to achieve our overarching objective of reducing poverty. And I know these are also priorities of all who have gathered here today. Let us therefore challenge each other to become full partners as our discussions lead us towards a clear vision, strategic directions and concrete actions for a healthier, sustainable future.

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**WHO/UNEP/ADB HIGH-LEVEL MEETING ON HEALTH
AND ENVIRONMENT IN ASEAN AND EAST ASIAN COUNTRIES**

Opening Remarks
by Mr Mahesh Pradhan,
on behalf of
Dr Surendra Shresta,
Regional Director,
United Nations Environment Programme (UNEP)

I. BACKGROUND

- (1) Approximately 3.5 billion people, 58% of the world's population, live in Asia and the Pacific. Asia has the fastest growing economies and a high rate of urbanization of 2.4 % per annum. Around 75 % of the worlds poor live in Asia. At least one in three Asians has no access to safe drinking water and at least one in two has no access to sanitation.
- (2) The high population density, economic growth, rapid industrialization, urbanization and widespread poverty are driving environmental degradation in the region. These range from: poor water quality and provision; inadequate sanitation and garbage collection /disposal; vector-borne diseases; air pollution; toxic chemical exposures; climate change and variability; to degraded urban environments.

II. ENVIRONMENT AND HEALTH

- (3) Globally, environmental factors are estimated to be responsible for up to 25 per cent of all death, disease and disability. In some regions, such as Africa, the environmental burden of disease is estimated to be as high as 35 per cent.
- (4) Health, environment and poverty are also intricately intertwined. The burden of mortality and morbidity attributed with Infectious Diseases falls, most heavily, on people in poor developing countries, and, in particular, in infants and children and in developed nations, it disproportionately affects indigenous and disadvantaged minorities. Undernutrition is often called "the silent killer".
- (5) Unsafe water, together with poor sanitation and hygiene, kills an estimated 1.7 million people annually, particularly as a result of diarrhoeal diseases.
- (6) Indoor air pollution caused by burning of biomass fuels, in poorly ventilated dwellings, for cooking and space heating, is responsible for the death of an estimated 1.6 million people annually, mostly due to respiratory infections.
- (7) Urban air pollution generated by motor vehicles, industry and in energy production, is estimated to be responsible for the death of over 800,000 people annually.
- (8) Exposure to lead kills an estimated 234,000 people annually.
- (9) Climate change, including more extreme weather events and changed patterns of diseases, is responsible for some 1.5 million deaths annually.
- (10) Several thousands die each year due to pesticide poisoning. One to five million cases of poisoning occur annually, mostly in developing countries.

III. PREVENTION

- (11) Many of these deaths, disability and disease are preventable, if a more proactive, preventive approach is adopted. Currently almost 99% of resources for environmental management are targeted at mitigation. India is spending over \$100 billion every year on treatment of diseases caused by air pollution. Cost of air pollution in PEOPLE'S REPUBLIC OF CHINA is estimated at 7% of GDP. These costs are estimated to rise to 13% of GDP by 2020. Future investment needs to focus on prevention.
- (12) UNEP and its partners, in recent times has adopted an ecosystem approach to human health, which uses ecosystem management principles for improving human health. What is good for the environment is also good for health, and is good for development.

IV. EXAMPLES OF SYNERGY BETWEEN ECOSYSTEM MANAGEMENT & IMPROVED HEALTH.

- (13) Better management of the home environment could reduce morbidity from diarrhoea-related diseases by 40 percent, through the use of already established interventions such as the supply of safe drinking water and environmental hygiene
- (14) Diseases such as trachoma, schistosomiasis and Chagas' disease can be reduced by 30 percent with improved environmental hygiene, garbage removal, safe drinking water and the elimination of breeding sites for vectors in the vicinity of dwellings.
- (15) By improving the quality of air inside homes and by taking action to reduce overcrowding, it is predicted that respiratory illnesses could be cut by 15 percent.
- (16) This approach to "ecosystem management", targeted specifically at improving human health, has been shown has the advantage of being much more economical than traditional methods and that it does not depend on inputs, such as, pesticides which cause water pollution.

V. MAJOR INITIATIVES

Since the WSSD, many initiatives being undertaken by the UN system and its partners.

- (17) Under the Health and Environment Linkages Initiative (HELI), operated by WHO, UNEP and other agencies, pilot projects were initiated in Jordan, Uganda and Thailand.
- (18) Under the Ecosystem Approaches to Human Health (Ecohealth) initiative, UNEP, WHO and others have initiated a series of field activities in Latin America and the Caribbean, North Africa, Middle East and West Africa. During the next couple of years Ecohealth projects will be initiated in the Asia-Pacific Region.
- (19) UNEP has also a major involvement in the field of children's environmental health, particularly through the WHO-led Healthy Environments for Children Alliance (HECA) and the Children's Environment Health Indicators Initiative (CEHI);

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OPENING ADDRESS BY DR SHIGERU OMI,
REGIONAL DIRECTOR,
WHO REGIONAL OFFICE FOR THE WESTERN PACIFIC
AT THE WHO/UNEP/ADB HIGH-LEVEL
MEETING ON HEALTH AND ENVIRONMENT
IN ASEAN AND EAST ASIAN COUNTRIES
MANILA, PHILIPPINES,
24-26 NOVEMBER 2004

MR GEERT VAN DER LINDEN, VICE-PRESIDENT, KNOWLEDGE MANAGEMENT AND
SUSTAINABLE DEVELOPMENT, ASIAN DEVELOPMENT BANK,

MR MAHESH PRADHAN, ENVIRONMENTAL AFFAIRS OFFICER,
UNITED NATIONS ENVIRONMENT PROGRAMME,
REGIONAL OFFICE FOR ASIA AND THE PACIFIC,

DISTINGUISHED GUESTS AND PARTICIPANTS,

LADIES AND GENTLEMEN,

I am pleased to address the opening of this meeting on health and environment in ASEAN and East Asian countries. On behalf of the two WHO Regional Offices that cover Asia and the Pacific, I would like to extend our warm welcome to you.

The subject of this meeting is closely related to something that I have been thinking of lately. That is, health and civilization and the influences of one on the other. As you may know, there were three major waves of events in the past that have dramatically influenced disease patterns and vice versa.

The first of these waves came when hunter-gatherers started settling into agrarian villages, about 4000 to 5000 years ago. Prior to the development of these settlements, widespread human-to-human transmission of diseases could not be sustained among the small isolated groups of nomadic hunter-gatherers. Widespread disease transmission became possible only when people ceased roaming and began living together in large human settlements.

These settlements occurred in different parts of the world, evolving into different civilizations.

The second wave was characterized by early contact between these different civilizations. This contact took place through trade, travel and military movement. For example, bubonic plague, also known as "Black Death", started in the Roman Empire during the 6th and 7th centuries.

It spread to PEOPLE'S REPUBLIC OF CHINA and Japan, as well as to the rest of Europe. At its height in the 14th century, bubonic plague had killed 30%-40% of the European population and about a half of the population of PEOPLE'S REPUBLIC OF CHINA. In turn, the bubonic plague is said to have eroded the orthodoxy and authority of the established Christian churches

and paved the way for a more liberal and entrepreneurial society which helped usher in the Renaissance.

The third wave occurred in the 16th to 18th centuries and was characterized by trans-oceanic travel of seafarers. Smallpox, measles, influenza and typhus spread to the Americas from Europe, killing around 90% of infected natives. On the other hand, new diseases, such as syphilis, were brought to Europe by seafarers returning from the Americas. I believe that we are in the 4th wave of change in disease patterns, and that today's civilizations are characterized by globalization, urbanization, consumerism and increasing dependency on science and technology.

In today's world, new infectious diseases such as severe acute respiratory syndrome and avian flu are emerging almost every year, while other infectious diseases, such as tuberculosis, are re-emerging. Noncommunicable diseases have become dominant causes of death in most developed countries, and are growing in significance in developing countries. Mental health problems, such as suicide, are on the rise in both developed and developing countries.

As my time is limited here, I will not talk in detail about how these characteristics of today's civilization affect the current disease patterns and health problems. But, globalization, urbanization, consumerism and advancement in science and technology all serve as driving forces for changes in the society and the environment in which we live, work, play and learn.

Environmental determinants of health, such as the air we breathe and the water we drink, have drastically changed, particularly over the last 50 years. WHO estimated that the annual mortality attributable to environmental risks in the Asia-Pacific region amounted to over 2.5 million deaths in 2000. This means that these environmental risks contribute to almost 6900 deaths every day in the region, a significant cause for concern.

Like changes in disease patterns, environmental risks also change in time and space. Water, sanitation, hygiene and indoor smoke from firewood and coal may be called traditional environmental risks and the problems are often local and rural in nature. More modern risks, such as outdoor air pollution, solid and hazardous wastes and toxic chemicals, are due to industrialization and urbanization, and often involve a large area, sometimes crossing country borders. More recent environmental risks, such as climate change, ultra violet radiation, and ecosystem change, are global in nature.

Socioeconomic developments of ASEAN and East Asian countries are becoming increasingly interdependent, and the linkages of these developments to the environment and health in the region are becoming more complex and cross-boundary. It is timely to discuss these issues. This meeting provides a forum to discuss such linkages developing in the region and identify the public health and environmental policies and actions that need to be taken individually and jointly by countries and international partner agencies.

The Asian Development Bank (ADB), United Nations Environment Programme (UNEP) and WHO have agreed to convene this meeting jointly, and to work together to support the implementation of the recommendations coming out of this meeting. Our commitment is important in advancing the environmental health agenda in the region, and WHO looks forward to further collaboration with UNEP and ADB in this field.

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Finally, I wish you every success in your deliberations during the meeting, and look forward to the fruitful outcomes of the meeting. With these words, I declare this meeting open.

Thank you.