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**Outcome of the World Summit on Sustainable Development**

**ENVIRONMENT AND HEALTH**

**Note by the Executive Director**

The present note discusses the linkages between the environment and health, which is one of the five cornerstones of the Secretary-General's initiative on water and sanitation, energy, health, agriculture and biodiversity (WEHAB), and provides information on the activities of the United Nations Environment Programme in this area. The document is submitted to the Council for its information and has been reproduced without formal editing.

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## ENVIRONMENT AND HEALTH

1. A healthy population is dependent on a healthy environment. Although humans have been aware of this crucial relationship for millennia, there has still been a tendency to separate the two fields of endeavour: a tendency to examine health issues in isolation, separate from the environmental factors, although poor environmental quality is responsible for up to 25% of all preventable ill health. WHO defines individual or population health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". However, environmental health is poorly defined, rarely quantified and valued, and as humans impact more and more on their environment, the close relationship between health and environment is becoming increasingly evident.
2. Access to safe and clean supply of water and adequate sanitation facilities are imperative for human health. Unfortunately, this access remains one of the biggest challenges facing millions of people, particularly in the world's poorest countries. In the year 2000, 1.1 billion people still did not have access to improved water supply and 2.4 billion people lacked access to improved sanitation. Water stress (which, two-thirds of the world's population are likely to face by 2025), caused by climate change, uncontrolled urbanization, unplanned water withdrawal and inappropriate water policies, make matters worse. Shortage of water also means food shortage, as 80% of our water consumption is applied for irrigating crops. Even now, malnutrition is responsible for the death of millions of children. Contamination of water can also stress water availability, and influence health, directly: cholera, typhoid and intestinal worms are diseases spread via sewage-contaminated water. Chemical contamination with pesticides, fertilizers, heavy metals, DDT, PCBs and other POPs, from the urban and agricultural environments, affect human health indirectly via the food chain. Water in irrigation, dams and other impoundments, and sewage provides the breeding habitat for mosquitoes, and other vectors of human disease. Malaria alone affects 300 million people a year, 90% of them in Africa, and there is a concern that climate change might lead to wider distribution of and range alternation of the malarial mosquitoes.
3. The Earth's climate is changing, and it is influencing human health. Earth's temperature is expected to rise between 1.4 to 5.8 degrees C in the coming 100 years, and it will affect everything from agriculture to industry to ecosystems. Resulting health problems range from increased incidences of heat stress; injuries and death from natural disasters; changing vector distributions, causing more diseases; and possible malnutrition or starvation due to changing agricultural productivity. The number of people affected by natural disasters, is also on the rise, particularly in Africa, although numbers of people killed by natural disasters has decreased since the 1980s. Approximately 250,000 people are killed in natural disasters, every year, and about 95% of these deaths occur in the developing world.
4. The climate change as well as direct human activity (e.g. habitat destruction, fires, pollution, introduction of alien species and hunting/harvesting) are threatening biodiversity. Ecosystems provide many invaluable goods and services to humans: cycling and filtration processes, such as air and water purification and accumulation or decomposition of toxic substances; stabilization processes such as flood mitigation and erosion control; critical habitats; translocation processes, such as, pollination and seed dispersal; as well as, aesthetic and recreational services. Some of the goods provided by ecosystems include food, medicinal products, building materials and energy sources. WHO estimates that approximately 80 per cent of the world's inhabitants rely mainly on traditional medicines for their primary health care, and plants play an important role in health care in the remaining 20 per cent. The roles of plants, animals and microbes in advancing our knowledge of biology, anatomy, physiology and medicine are also significant. However, with the human population growth and exploration into new territories, extinction events, are diminishing biodiversity.
5. There is a correlated relationship between population growth and urbanization. Almost half of the world's population (47%) live in urban areas, and that figure will continue to rise. In the search for greater opportunities for health, education and employment, a number of people migrate to urban areas. The rapid growth of urban areas, however, means that proper services and infrastructure, such as, adequate housing and water supplies, sewers, roads and waste disposal sites, are often, not provided. Especially, informal settlements are insecure and face high levels of crime, and are often situated on fragile environments, such

as, steep slopes, natural drainage pathways and flood-prone areas, and the health conditions in the poorest slums can be much worse than in rural areas. Indoor air pollution, largely due to the use of biomass fuels in ill-ventilated houses, is a major cause of respiratory disorders, particularly in women and children. Increasing vehicular traffic causes air pollution and noise problems in the urban areas. Lead is still being used as a gasoline additive in most developing countries. Lead impairs learning abilities of children.

6. In general, knowledge of environment and health risks is segmented. Therefore, exchange of information within the environmental health sector, as well as with other sectors, is essential. Environmental health, through its very nature, tends to focus more on preventative medicine, whereas traditionally, the field of medicine has focused more on the curative approach. However, as diseases that are clinically different may respond to the same preventative measures, the extension of current medical approaches (including both preventative and curative) and environmental education, for better health promotion needs to be encouraged. Also, as both the health sector and the environment sector lose out when it comes to financing and budget, it is important that health must be seen as a central factor, not only in social development, but also in a country's ability to compete at the global economic stage, and to achieve sustainable economic progress.

7. Health is one of the five cornerstones of the WEHAB agenda and is, of course, intimately linked with the other four sectors. The health agenda of WEHAB suggests many issues, including environmental health issues that must be addressed, stressing the need for intersectoral cooperation, the need for more information, capacity building and the need for more financial resources.

8. NEPAD (New Partnerships for African Development) has several environmental and health goals in its action plan. Although the overall health objectives and actions are commendable and necessary, the NEPAD initiatives are somewhat lacking when it comes to environmental health. Perhaps the most vital missing link is the need for intersectoral cooperation. Health is represented as a separate sector, and its links, particularly with the environmental sector, are not stressed. In order to improve the health of countless people in Africa, intersectoral cooperation, research and education, will be imperative, not simply improving the health systems, although this will be critical as well.

9. Millennium Development Goals (MDGs) include several goals, which are both directly and indirectly related to environmental health: Goal 1 - Eradicate Extreme Poverty and Hunger; Goal 4 - Reduce Child Mortality; Goal 5 - Improve Maternal Health; Goal 6 - Combat HIV/AIDS, Malaria and Other Diseases; and Goal 7 - Ensure Environmental Sustainability.

10. Finally, to enhance effectiveness in tackling environmental threats to human health, knowledge needs to be consolidated and shared to influence policy responses at the national, regional and global levels. The Canadian proposal: Health and Environment Linkages Initiative (HELI); made at WSSD could improve the policy responses, and provide a global partnership of governments, NGOs, civil society, academic and research institutions, and international organizations, necessary to provide health for all. UNEP is fully committed to the further development and implementation of the HELI proposal, in cooperation with WHO, Health Canada, Environment Canada and other partners. Regional activities will begin with the Latin America and the Caribbean initiative.

11. Human health and well-being are also intimately tied to the health of the life sustaining ecosystems. Yet this complex relationship is rarely taken into account in either mainstream health or natural resource programming. Health is given even less weight in international trade agreements and practices. A medical approach alone is not sufficient for a holistic understanding of the factors affecting human health: economic, social, and environmental components play equally important roles.

12. The United Nations Foundation (UNF) is supporting a UNEP project entitled: Improved Health Outcomes Through Community-Based Ecosystem Management: Building Capacity and Creating Local Knowledge in Community Health and Sustainable Development. The main objective of the project is to foster transdisciplinary research activities to promote human health through better management of the ecosystems. Activities include, research projects and capacity-building activities in Latin America and the Caribbean, Middle East and North Africa and West Africa. Outputs include trained manpower and

multidisciplinary research tools. The expected results are: improved health through better ecosystem management, particularly of tropical vector-borne diseases in agro- and urban ecosystems. UNEP, WHO, IDRC and other partners have been jointly exploring the ecosystem approaches to human health (Ecohealth) concept, to identify the web of ecologically based factors affecting human health - as well as the links between them. Equipped with this knowledge, local communities can better manage ecosystems to improve people's well-being and the health of the ecosystem. Interventions developed using this approach can make a cost-effective contribution to improving human health in developing countries. A Global Forum on Ecohealth will be convened in Montreal, Canada, May 18-23, 2003, jointly with WHO, IDRC and other partners.

13. UNEP will continue its work with WHO, WMO, UNICEF, and others, on: children's environmental health; assessment of the health impacts of climate change; preparation of guidelines to assess the impacts of climate change on human populations; assessing the loss of biodiversity on human health; and air quality management in Asian mega - and major cities, among others. HELI and Ecohealth are two of a growing number of initiatives that UNEP is beginning to tackle in the area of environment and health, providing strong evidence that this holistic approach is both useful and beneficial.

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