A Framework for Action on Health and the Environment

WEHAB Working Group

August 2002

Printed on Recycled Paper

Contents

Preface and Acknowledgments 5

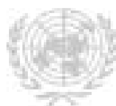
Health and the Environment: Key Issues and Challenges 7

Addressing the Challenges in Health and the Environment 12

Health and the Environment: Frameworks for Action 18

Annexes
Major Agreements on Health and the Environment and Their Objectives 25

UN System Capacities in Health and the Environment 31



Preface and Acknowledgments

The WEHAB initiative was proposed by UN Secretary-General Kofi Annan as a contribution to the preparations for the World Summit on Sustainable Development (WSSD). It seeks to provide focus and impetus to action in the five key thematic areas of Water, Energy, Health, Agriculture and Biodiversity and ecosystem management that are integral to a coherent international approach to the implementation of sustainable development and that are among the issues contained in the Summit's Draft Plan of Implementation.

The five thematic papers are based on initial consultations with concerned agencies of the UN System and are not intended to be consensus documents reflecting the totality of UN System activities in these areas. They do, however, try to provide a broad view of existing normative and programmatic frameworks in each area, to highlight interlinkages among the sectors, to identify key gaps and challenges and to highlight areas where further action is needed.

The WEHAB initiative also responds to resolution 55/199 of the UN General Assembly that mandated the WSSD preparatory process and decided that the Summit should focus on areas where further efforts are needed to implement *Agenda 21* and that action-oriented decisions in those areas should address new challenges and opportunities. In that regard, the initiative takes fully into account the text of the Draft Plan of Implementation agreed at the fourth meeting of the Preparatory Committee for the WSSD in Bali, as well as existing agreed multilateral frameworks. It includes proposals for a number of targeted actions in each of the sectoral areas that are anchored in various intergovernmentally agreed multilateral frameworks on the basis of an incremental approach to meeting broad targets.

The UN General Assembly, in resolution 56/226 on the World Summit on Sustainable Development, also encouraged new initiatives that would contribute to the full implementation of *Agenda 21* and other outcomes of UNCED by strengthening commitments at all levels, including by reinvigorating global commitment and partnerships, both among governments as well as between governments and major groups. Partnerships have thus emerged as an important aspect of the further implementation of *Agenda 21*. While partnerships may involve several actors and be of a broad nature, the WEHAB initiative, drawing as it does on intergovernmental frameworks, could provide a structure for partnerships in these five areas and in this regard could potentially serve as a framework for benchmarking action and monitoring progress in the follow-up to the WSSD.

Due to constraints of time, the initial approach taken in the preparation of the WEHAB initiative was, of necessity, somewhat selective and is not meant to imply any priorities at this stage. If member states believe that a co-ordinated approach to implementation in these areas is required, however, the WEHAB initiative potentially provides a framework for the development of a coherent and co-ordinated follow-up by the UN System based on the intergovernmentally agreed outcome of WSSD. As such, it should be seen as the beginning of a process of follow-up by the UN System.

More than 100 people contributed to the production of these booklets. The list is too long to name everyone here. The names that follow are of individuals who spent a great deal of their time in drafting, providing texts, reading material and giving overall advice. This project would have never been possible without the exemplary joint team work. This is, in fact, an example of the outstanding capacities of the UN System and the World Bank and their capacity to produce team work in record time with very good quality.

Composition of the Working Group:

Leader: Luis Gomez-Echeverri (UNDP)

Water Volume Lead Authors and Co-ordinators:
Manuel Dengo (UNDESA)
Alvaro Umana (UNDP)

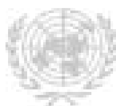
Energy Volume Lead Authors and Co-ordinators:
Jarayo Gururaja (UNDESA)
Susan McDade (UNDP)
Irene Freudenschuss-Reichl (UNIDO)

Health Volume Lead Authors and Co-ordinators:
Yasmin von Schirnding (WHO)
Vanessa Tobin (UNICEF)

Agriculture Volume Lead Authors and Co-ordinators:
Volume compiled by Luis Gomez-Echeverri with inputs from FAO, World Bank and CGIAR

Biodiversity Volume Lead Authors and Co-ordinators:
Peter Schei (UNEP High-Level Advisor)
Charles McNeill (UNDP)

The Core Team consisted of the above plus several others from various agencies: Adnan Amin (UNEP), Yves Bergevin (UNICEF), Fernando Casado (UNIDO), Muhammad Aslam Chaudry (UNDESA), Anilla Cherian (consultant), Mark Collins (UNEP-WCMC), Boyd Haight (FAO), Nicholas Hughes (FAO), Maaike Jansen (UNEP), Kristen Lewis (consultant), Kui-Nang Mak (UNDESA), Nwanze Okidegbe (World Bank), Terri Raney (FAO) and Francisco Reifschneider (CGIAR).



Other staff members of the many agencies listed on the inside back cover provided a number of useful inputs and contributions. Many of them, as in UNEP, FAO and WHO, spent a great deal of time reviewing and providing texts. They are too many to list but we appreciate their timely and valuable inputs. We would like particularly to thank UNEP, UNDP, the World Bank's Environmentally and Socially Sustainable Development Network, UNDESA, UNIDO and WHO for the valuable and substantive support and for placing a large number of the core staff and resources at our disposal.

The project benefited greatly from the contributions of High-Level Advisors who took time to read various drafts and provide useful comments: Margaret Catley-Carlson, Gourisankar Ghosh, Hartwig de Haen, Thomas Johansson, Sir Richard Jolly, Calestous Juma, Izabella Koziell, Stephen Karekezi, Roberto Lenton, Jeffrey McNeely, Peter Raven, Pedro Sanchez and M.S. Swaminathan. The project also benefited from the work of the Millennium Project and its director, Professor Jeffrey Sachs, Director of the Earth Institute of Columbia University.

For this volume on health and the environment, special thanks go to Fernando Casado (UNIDO), Mathew Hodge (UNICEF), Maaike Jansen (UNEP), David Nabarro (WHO), Vanessa Tobin (UNICEF) and Jim Willis (UNEP).

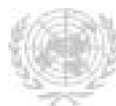
We would also like to thank the team that produced the booklets, especially Jane Coppock of the Yale School of Forestry & Environmental Studies, who managed the production; Dottie Scott, page layout; and Yale Reprographics and Imaging Services (RIS), which did the design and printing. They put in a great deal of effort to make this project happen. We thank them.

Very special thanks to Linda Starke, editor of all the volumes. Her outstanding contribution and deep knowledge about the issues discussed here made this project possible.

Our thanks also to Mr. Mark Malloch Brown, Administrator of UNDP, Dr. Klaus Toepfer, Executive Director of UNEP, and Mr. Ian Johnson, Vice-President, World Bank, for the support they have provided for this project.

Last but not least, this project would never have seen the light of day without the unstinting efforts of Luis Gomez-Echeverri of UNDP, who came to New York to lead the WEHAB Working Group and to manage the project that produced these contributions to WSSD in a very short period of time.

Nitin Desai
Secretary-General
World Summit on Sustainable Development



Health and the Environment: Key Issues and Challenges

Principle 1 of the Rio Declaration on Environment and Development states: “Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.” This stresses the important interlinkages between the social, economic and environmental pillars of sustainable development, all of which are underpinned by good health. Health is both an indicator of as well as a resource for sustainable development.

Agenda 21, the blueprint for action adopted at the Rio Earth Summit, acknowledged the close relationship between health, the environment and development, as well as the need to improve health in order to achieve sustainable development. Poverty eradication and economic development cannot be achieved where there is a high prevalence of debilitating illnesses. And the health of the population cannot be sustained without responsive health systems, a healthy environment and an intact life-support system.

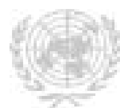
People who are poor are more likely to get sick. But now much more is known about the reverse, which is also true: people who are sick are more likely to become poor. Ill health creates and perpetuates poverty, triggering a vicious circle that hampers economic and social development and contributes to unsustainable resource use and environmental degradation. So efforts to protect the health of the environment need to be closely linked to programmes to protect the health of people.

Humans depend on healthy ecosystems for all their needs. However, the environment can also be a profound source of ill health for many of the world’s people. At least a quarter of the global burden of disease may be attributable to poor environmental conditions. Many infectious diseases are associated with poor environmental quality and lack of access to basic services such as clean water or household energy. Many non-infectious diseases are also environment-related—cancers and chronic respiratory illnesses, for example. Indoor air pollution from cooking and heating with biomass and other dirty fuels such as coal contributes to nearly 2 million excess deaths per year, most of them children under five years old. In addition, the emerging burden of environmental disease is associated with risk factors such as chemicals in food, the air and water (see Box 1); deteriorating ambient air and water quality; physical factors such as noise or radiation; and unhealthy working conditions, both in the formal and the informal sector.

The link between health and the environment is most evident among the poor, who frequently live in unsafe and crowded settlements, in underserved rural areas or in slums on the edges of cities. They are more likely to be exposed to pollution and other health risks at home, at work and in their communities. (See Box 2.) They are also more likely to consume insufficient or poor-quality food, to smoke cigarettes and to be exposed to other health risks. This undermines their ability to lead socially and economically productive lives, which in turn undermines the poorest countries’ ability to develop. Rapid urbanization is a key factor. The combination of pollution, lack of sanitation, inadequate basic services, growing migration from the countryside to the cities and extreme poverty have made many cities in the developing world unhealthy.

Although concerted action over the past 50 years has led to significant improvements in human health—average life expectancy has increased significantly and infant and child mortality rates have declined—not all regions of the world have shared equally in these improvements. Poor health continues to be a constraint on development efforts. In some cases the process of development itself is creating conditions

- More than 2 million children under the age of five continue to die each year from diseases that are easily preventable by currently available vaccines. In developing countries, some 28,000 young children die every day.
- Acute respiratory infections are the top killers of young children today, accounting for nearly 2 million deaths. Pneumonia, the deadliest of these illnesses, kills more children than any other infectious disease. Diarrhoeal diseases are the second leading killer of children, and claim over 1.5 million young lives a year.
- In Africa, women face a 1-in-13 lifetime risk of dying during pregnancy and childbirth.
- Non-communicable diseases—such as cardiovascular disease, cancer, chronic respiratory illnesses and diabetes—currently contribute to almost 60 per cent of global deaths, and are expected to account for nearly 80 per cent of the global burden of disease by 2020.



Box 1: Health and the Chemical Environment

The chemicals revolution of the last century has changed our lives and contributed greatly to our well-being. Today there are some 70,000–100,000 different chemicals on the market, with 1,500 new ones being introduced every year. But it is not all good news—many have now been found to be a threat to human health and the environment. For example, millions of people are poisoned each year using pesticides that are too dangerous to be handled safely. This affects not only agricultural workers directly, but also their families and consumers in general.

Some of the most toxic chemicals are persistent organic pollutants, including dioxins and furans, which exist only as by-products with no commercial use. Also receiving global attention are some persistent inorganic chemicals, such as lead and mercury compounds. Exposure to high levels of metallic, inorganic or organic mercury can permanently damage the brain, kidneys and a developing foetus. Similarly, lead is known to be extremely toxic to the brain, the kidneys and the reproductive and cardiovascular systems. And once lead is emitted (in car exhaust fumes, for instance), it can reside in the environment for hundreds of years and become globally dispersed. Unfortunately, there are still many countries with high levels of lead in gasoline.

Arsenic is another heavy metal of concern. More than 50 million people in Asia regularly drink water containing toxic levels of arsenic due to deep-set aquifers. The effects of arsenic exposure range from skin disorders to cancer and include also a host of neurological and developmental problems. Despite this, effective public policy responses to remediate or prevent this exposure have not yet been proposed.

where human health suffers as a result of economic, political and social upheaval, of environmental degradation and of uneven development or increasing inequities.

The main causes of avoidable death in low-income countries have been well documented: they include HIV/AIDS, malaria, tuberculosis (TB), childhood infectious diseases, maternal and perinatal conditions, micronutrient deficiencies and tobacco-related illnesses. There is little doubt that improvements in health in these areas alone would translate into higher incomes, higher economic growth and reduced population growth—all major contributing factors to sustainable development.

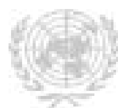
Infectious and parasitic diseases account for around 25 per cent of total deaths and are the world's leading killers of children and young adults, including many breadwinners and parents. These diseases, which have intimate links to environmental conditions and poverty, affect the lives of poor people disproportionately and pose a serious threat to health and economic development. Many are becoming of increasing importance in urban areas, where they may spread rapidly with insanitary conditions, coupled with such factors as densely populated and crowded settlements, increased mobility and changes in human behaviour and sexual activities.

Poverty increases vulnerability to HIV infection, and AIDS exacerbates poverty—with devastating social impacts, not least of which is children becoming orphans. In some countries the rising life expectancies of the 1990s have been reversed—sometimes by as much as a third—and dropped back to pre-1980 levels. In stark contrast to trends in other regions, children today in southern Africa can expect to live shorter lives than their grandparents.

The impact of poor health on economic sustainability is clear. People who are ill cannot contribute fully to their families, their communities or the economic development of their nations. HIV prevalence rates of 10–15 per cent—which are no longer uncommon—can translate into a reduction in the annual growth rate of gross domestic product (GDP) per capita of up to 1 per cent. In sub-Saharan Africa,

Box 2: Vulnerable Groups in the Household Environment

The health of poor children is particularly affected by adverse environmental conditions at the household and neighbourhood level. Not only are they more exposed to health threats in the environment, they are also more vulnerable to the ill health effects of problems such as a lack of clean water and air. Lead poisoning illustrates well the unequal burden of risk borne by poor inner-city children who are not only more exposed to sources of lead in and around the home environment but also more affected by its toxicity. Studies from South Africa illustrate dramatic socio-economic differentials with respect to blood lead burdens in inner-city children. These are associated with such factors as poor housing and deteriorating lead-based paint, contaminated air and dust, pronounced hand-to-mouth exposure and poor supervision of children, coupled with nutritional deficiencies. Women are also vulnerable to a range of hazards. They typically spend more time in and around the home, carry a disproportionately high responsibility for household chores, and often have economic activities based in the home. The problem of indoor air pollution from biomass burning illustrates the increased vulnerability of both women and children at the household level.



losses due to HIV/AIDS are estimated to be at least 12 per cent of annual gross national product. TB, which is exacerbated by HIV and which kills more than 1.5 million people each year, takes an economic toll equivalent to US$12 billion from the incomes of poor communities.

Malaria is another disease that has a major impact on health and economic development. Malaria infects several hundred million people annually, resulting in at least 1 million deaths. Africa's GDP would probably be about US$100 billion higher if malaria had been tackled 30 years ago, when effective control measures first became available. The scale of the problem is increasing in many countries, partly because of deterioration in public health infrastructure, environmental change, conflict-related human migration, widespread poverty and drug-resistant parasites.

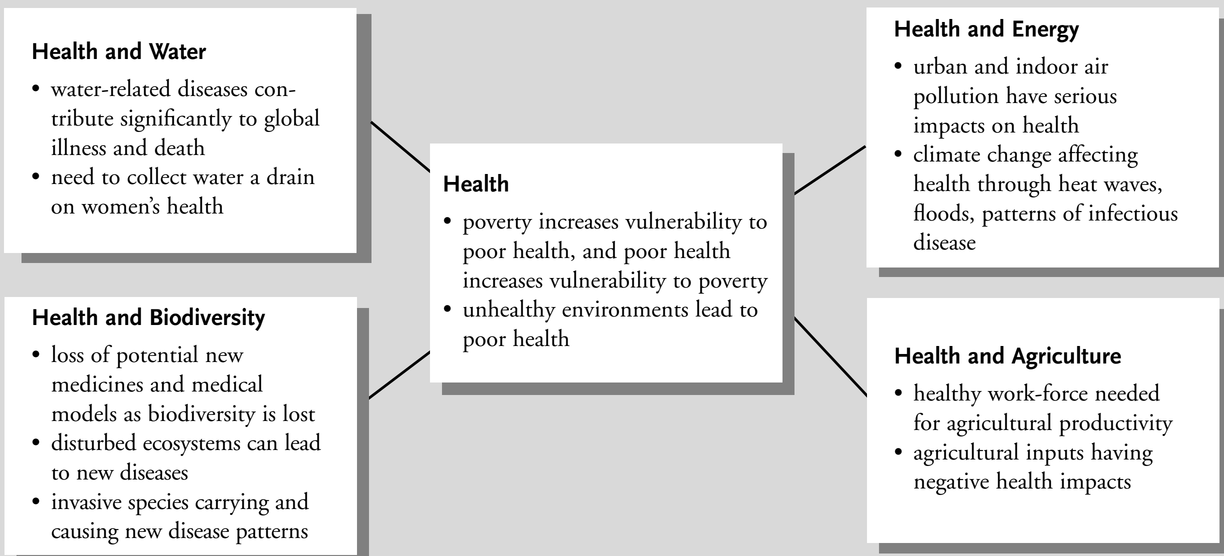
The rapid rise of non-communicable diseases is also threatening economic and social development as well as the lives and health of millions of people. These are largely associated with unhealthy lifestyles and consumption processes (unhealthy diets, physical inactivity and tobacco and alcohol use) as well as with poor environmental quality, giving nations an added burden of disease to cope with—a burden their underfunded national budgets and weak health sectors can ill afford. If the growth in tobacco use goes unchecked, the numbers of deaths related to its use will nearly triple—from 4 million a year to 10 million within 30 years. More than 70 per cent of these deaths will take place in developing countries, and an increasing proportion among women. Tobacco also leads to considerable losses in natural resources and national productivity: in many countries tobacco growing is associated with deforestation, increased pesticide contamination of farmland and displacement of land that could be used for food production.

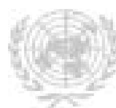
In summary, there is no question that good health is the foundation for environmental, social and economic sustainability. More specific links among these topics are discussed further in the remainder of this chapter in the context of five key areas where concrete results can and must be obtained, as described by Secretary-General Kofi Annan—water and sanitation, energy, health and the environment, agriculture and biodiversity and ecosystem management (WEHAB). (See Figure.)

Health and Water

Water-related diseases contribute significantly to global morbidity and mortality. They occur in countries at all levels of development and in all regions, with the burden of disease being borne disproportionately by children, particularly in developing countries. Diseases directly influenced by hygiene, sanitation and water include, for example, infectious diarrhoea, typhoid, cholera, hepatitis, malaria, trachoma (a cause of irreversible sight impairment) and fluorosis (which has both crippling skeletal and dental effects and affects around 30 million in China alone), along with other debilitating diseases such as schistosomiasis or Japanese encephalitis, for example. Improvements in sanitation and hygiene behaviours may reduce the incidence of many such diseases, while better water resources management in both agricultural and urban settings can help control malaria and other water-related vector-borne diseases.

Figure: Examples of the Critical Role of Health in WEHAB Priority Areas





Other linkages between water and health are more indirect, such as those related to water as a means of producing food—our source of nutrition—and of protecting the environment (the maintenance of biodiversity for pharmaceutical development, for example). In addition to reducing the incidence of disease, improved water management has other beneficial effects on health that occur through diverse mechanisms, such as decreased expenditure arising from water-related disease; increased time available for productive and non-productive activity, especially by children and women, due to improved access to drinking water; and the economic benefits of using water in productive activity (in household-based industrial production, for example).

Health and Energy

The environmental consequences of current patterns of energy generation and use account for a significant fraction of the health impacts of using energy, mainly due to poor air quality. Emissions from fossil fuel combustion, for instance, are major contributors to urban air pollution. Already more than 1 billion people in urban areas are exposed to health-threatening levels of air pollution—a number that is expected to increase. Dust and smoke particles have been associated with increased mortality, increased hospital admissions for lung and heart disease and increased use of medication among asthmatics. Ozone exacerbates respiratory disease by damaging lung tissue and reducing lung function, and by sensitizing the lung to other irritants. Rising carbon monoxide levels have been linked to higher rates of hospitalization from heart attack. Particulate matter is a rising concern, especially in countries where dirty fuels predominate with little emissions abatement.

In stark contrast to trends in other regions, children today in southern Africa can expect to live shorter lives than their grandparents.

At the household level, indoor air pollution from solid fuel use for cooking and heating is a major contributor to respiratory infections in young children. The ill effects of relying on traditional fuels such as biomass, kerosene or gas include burns and poisonings in children and physical exhaustion for women who must deal with arduous firewood collection. In addition, time spent on such activities limits women's and children's opportunities for education and other productive activities, which in turn affects efforts to alleviate poverty and improve human health.

Long-term changes in world climate due to current patterns of energy use will affect many of the prerequisites for health and sustainable development. Some of the health impacts will be direct, such as heat-wave or flood-related deaths; others will come from disturbances in complex ecological processes, affecting, for example, patterns of infectious diseases. Disruption of complex ecological processes is already affecting the geography of vector-borne and infectious diseases such as malaria, dengue fever and leishmaniasis. Malaria increases markedly during periods of extreme temperature or altered rainfall in many areas of the world. Recent assessments by the Intergovernmental Panel on Climate Change have confirmed that poor countries tend to be the most vulnerable to the health impacts of climatic variation and climate change, illustrating the interconnections between social inequality and environmental issues.

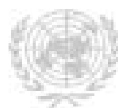
Health and Agriculture

Agriculture and health are inextricably linked: people's health depends on productive and sustainable agriculture, and agriculture, in order to be continuously productive, needs a healthy work-force. Undernourishment, in the sense of insufficient calories, is one of the primary causes of poor nutrition and, often, of premature death. So the production of food is the backbone of a population's survival. Socio-economic and infrastructure elements needed for successful agriculture are thus indirect elements of food security and human health. The lack of income, resulting in poverty, for example, is a key determinant of food insecurity and a principal cause of hunger.

The sustainability of the agricultural process is of fundamental importance to human health. Health can be affected in numerous ways, including through direct and indirect environmental changes associated with irrigation, land use changes and habitat modification, cropping patterns, livestock management and agricultural run-off, as well as the use of pesticides, herbicides and other chemical inputs.

Millions of people are acutely poisoned by pesticides each year (mainly through pesticide use), and others have their health affected by pesticide residues in food. Persistent organic pollutants accumulate in the food chain and may be a particularly severe health threat to certain populations (such as the Inuit or people living by subsistence hunting and fishing). Heavy metals like mercury, lead and arsenic also continue to poison people through contaminated food, drinking water and other sources.

Concern about the links between health and agriculture has recently also been heightened by episodes of chemical contamination of foodstuffs, as well as by the outbreak of bovine spongiform encephalopathy and the emergence of variant Creutzfeldt-Jakob Disease.



Poor health weakens and diminishes the work-force and therefore can decrease agricultural productivity. Insufficient access to health services and facilities can perpetuate disease and further reduce the agricultural work-force. For instance, in the most affected countries in Africa, millions of agricultural workers are expected to die from HIV/AIDS in the next two decades. On a national level, the decline in the agricultural work-force due to disease translates into lower total output and a rise in food prices. This, in turn, can mean that poor people take in even fewer calories and then have less energy to do work when they do find some, keeping them trapped in the vicious circle of poverty.

Health and Biodiversity

The world economy is based on the goods and services derived from ecosystems, and humans depend on the continuing capacity of ecosystems to provide this multitude of benefits. In terms of health impact, the loss of biological diversity is directly associated with the loss of potential new medicines and medical models that are vital to a better understanding of human physiology and disease. Thus we are losing, before we even discover them, many of nature's chemicals and genes. Much of the world relies on traditional plant-based medicine, and over 50 per cent of commercially available drugs are extracted or patterned from non-human species. Yet less than 1 per cent of flowering plants have been tested for their potential beneficial pharmaceutical properties. It has been estimated that five-sixths of tropical vegetative nature's medicinal goods have yet to be recruited for human benefit.

In many countries, tobacco growing is associated with deforestation, increased pesticide contamination of farmland and displacement of land that could be used for food production.

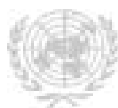
In addition, the disturbance of ecosystems that is associated with biodiversity loss can have health impacts in that population explosions of competitive species and the switching of pathogens from primary hosts to humans can result in new and emerging infectious diseases.

Meanwhile, "invasive" species are spreading world-wide into new environments through intensified human food production, commerce and mobility. The resultant changes in regional species composition have myriad consequences for human health. For example, the choking water hyacinth in eastern Africa's Lake Victoria, introduced from Brazil as a decorative plant, is now a breeding ground for the water snail that transmits schistosomiasis and for diarrhoeal disease organisms.

Health and the Millennium Development Goals

The Millennium Development Goals (MDGs, see inside front cover) adopted in September 2000 provide key targets to address the most pressing development needs. Three of the eight goals are on health concerns: reducing child mortality; improving maternal health; and combating HIV/AIDS, malaria and other diseases. As indicated, many of the interventions needed to tackle such diseases and ill health conditions (particularly among the young) are environmentally related and include factors such as clean water and sanitation, household energy and sound environmental management. Several other MDGs are of central importance to realizing health goals. The first one—eradicating extreme poverty and hunger—has an obvious and direct impact on people's health. Even when hunger is not an immediate problem, poverty can have a significant impact on health, and vice versa. As described, there are numerous pathways for these effects to occur. While poverty may cause people to become ill, it often means becoming poorer—both directly, because the poor have to spend a part of their small income to pay for treatment and medicines, and indirectly, because their choices become limited and they may be unable to secure a livelihood.

In addition, universal primary education—the second MDG—which is associated with social and economic advancement, is key to improving health. Also, health investments are more effective in the presence of better educated populations. Similarly, promoting gender equality and giving women more power will strengthen their role in their families and thus the health of their children, for studies have shown that women wage earners spend more of their pay than men do on caring for their families. Finally, the MDG concerned with environmental sustainability is fundamental to ensuring that health gains are sustained in the longer term, for the benefit of future generations.



Addressing the Challenges in Health and the Environment

As indicated in the first chapter, widening and deepening poverty and inequities are increasing the gap in health worldwide. Poverty is a major cause of undernutrition and poor health; it contributes to the spread of diseases and environmental degradation, it undermines the effectiveness of health systems, and it impedes efforts to slow population growth. Other factors, such as rapid and uncontrolled urbanization and industrialization, are adversely affecting the quality of the physical and social environment and have outstripped the capacity of the health infrastructure to meet people's needs.

Major UN conferences and summits over the past decade—most notably, the 1992 Earth Summit and the Millennium Summit—have led to a number of important goals, targets and commitments. It is becoming increasingly evident that national and local decisions are affected as never before by global forces and policies. Countries have been forced to acknowledge the interdependence arising from the fragility of our shared environment, an increasingly global economic system and the potential for the rapid spread of infectious diseases.

It is not only infectious diseases that spread with globalization, however. Countries are having to contend with the emerging burden of non-infectious diseases and with diseases and ill health related to the environment and to people's lifestyles. There is also increasing concern about food safety, related both to microbiological organisms and to chemical substances. In many parts of the world, the incidence of food-borne disease has been rising. The growing international trade in food, while associated with substantial health benefits, also has the potential to disseminate food-borne disease.

Although in the twenty-first century there are age-old public health threats to be addressed as well as emerging ones, new opportunities and approaches are also available to overcome them. Globalization of trade, travel, technology and communications could yield substantive benefits—provided the potential for serious adverse health effects is addressed. New technologies could transform health systems and improve health. Stronger partnerships for health between private and public sectors and civil society could lead to stronger joint action in support of improved health. Progress to date has been hampered by a number of factors, however, including insufficient political commitment, inadequate human resources, weak health systems, difficulty in achieving intersectoral action for health and insufficient funding.

Two key policy objectives need to be met in order to achieve the goal of better health for all: making health central to sustainable development (for example, by combating poverty and by promoting health in all settings, sectors, policies and planning processes) and developing health systems to meet people's needs more effectively.

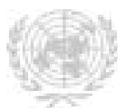
Tackling Poverty

Poverty leads to poor health and poor health exacerbates and deepens poverty. A major intensification of effort, including improvements in disease programmes, health services and environmental and living conditions, is required if the world is to meet the Millennium Development Goals (see inside front cover)—three of which are directly related to human health. Scaling up interventions to address the health needs of the poor is the top priority. Tackling the cycle of poverty and poor health requires a sustainable and integrated approach to poverty reduction and environmental improvement that reaches the poorest, most marginalized and most displaced individuals.

Inequities in health are not inevitable. Disease control and environmental management programmes have the potential to have a major impact on the disease burden. Interventions to change sexual behaviour to prevent HIV, directly observed treatment for tuberculosis (TB), bed nets impregnated with insecticides and vector control programmes against malaria, immunization of children against measles, water and sanitation programmes coupled with oral rehydration solutions to prevent and treat diarrhoea, environmental management interventions for indoor air pollution (see Box 3), early identification and treatment of pneumonia, national tobacco control strategies—all these initiatives and programmes are cost-effective, but too few people are able to benefit from them.

Successful strategies and policy measures have a number of elements in common:

- They focus on diseases, health conditions and risk factors, both present and future, that threaten sustainable development.
- They focus on the broader determinants of health and disease.
- They focus on good governance and sustainable health systems.
- And they forge partnerships with sectors inside and outside of health.



Box 3: The Problem of Indoor Air Pollution

Nearly 3 billion people rely on traditional biomass fuels—wood, charcoal, animal dung, crop wastes—and coal-burning for household energy needs. This can produce indoor air pollution levels many times higher than international air quality standards allow. The level and kind of pollution depends on the type of fuel and the combustion efficiency. Fuels such as crop residues and firewood are used mostly by poor households; charcoal, kerosene and bottled gas are used by those better off; electricity is mostly used by the affluent who can afford the grid connection as well as electric appliances. There is also a rural-urban dimension to fuel choice: crop residues and firewood are more readily available in rural areas, and the smoke has the added benefit of controlling insects in thatched roofs.

Health risks are often complex and interconnected. Crowding, poor ventilation, malnutrition, poor sanitation and lack of immunization, together with high levels of indoor air pollution, result in ill health. Elevated indoor air pollution levels increase the risk of a range of diseases, such as acute lower respiratory infections in childhood, particularly pneumonia. Elevated risks have also been demonstrated for chronic respiratory diseases and lung cancer, mainly where coal is burned and particularly in women.

A wide range of interventions can reduce the impact of household energy use on health. These include modifying the source (improved stoves, access to cleaner sources of energy), the home environment (better ventilation) and user behaviour (keeping children away from smoke during peak cooking times). These can be implemented through policies operating at the national level (supply and distribution of improved stoves, cleaner fuels) and the local level. For example, several hundred programmes for improved stoves are in place in over 50 countries—ranging from entirely local, nongovernmental initiatives such as the ceramic stove program in Kenya to national initiatives reaching millions of households, as in rural China.

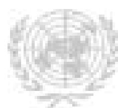
Three diseases have been singled out for their particularly significant contribution to poverty: HIV/AIDS, malaria and tuberculosis. Despite enormous obstacles still to be overcome, there have also been successes from which valuable lessons can be learned.

Effective measures for a substantially scaled-up AIDS prevention effort, for example, that incorporates the education and empowerment of women include the following, among other components: accessible, inexpensive condoms; immediate treatment of other sexually transmitted infections; voluntary counselling and testing for HIV; prevention of mother-to-child transmission; promotion of harm reduction to reduce HIV infection in drug users, in sex and migrant workers, and among young people; sexual health education in school and beyond; accelerated access to care, support and treatment, including psychosocial support; home and community-based care (including of orphans); and innovative new partnerships to provide sustainable and affordable supplies of medicines and diagnostics. As with other diseases, effective care of people living with HIV/AIDS will require affordable drugs and strengthened health systems, including stable and effective drug distribution, improved laboratory services and supportive health care staff. It also requires community action and empowered individuals and families. The response to the epidemic must thus be through integrating prevention, care, support and treatment.

Similarly, in the area of malaria a number of elements are fundamental to achieving success. This includes such factors as early detection and response to outbreaks; rapid diagnosis and treatment of those who are ill, including home-initiated care; chemoprophylaxis for pregnant women; multiple and cost-effective means of preventing infection; improved environmental management, including vector control measures; use of insecticide-treated materials; focused research to develop, test and introduce new products, such as safe and cost-effective alternatives to DDT; and a well-co-ordinated movement through stronger capacity for health sector and community-level efforts.

In particular, better environmental management can contribute to malaria control through interventions to address the links between malaria and poor water management strategies; habitat modifications, such as land conversion and forest clearance for roads and agriculture; and changing ecological conditions and consequent increased vector-borne transmissions. The construction of dams and reservoirs, inadequate drainage in irrigation schemes or poor urban water management can create increased quantities of standing water that provide ideal breeding grounds for mosquitoes.

Finally, the example of tuberculosis points to a similar interrelationship. Effective drugs are available for TB for less than US$20, but few people are diagnosed with this disease. TB spreads from person-to-person more easily in crowded conditions, and the resulting illness often impoverishes both the sick and their families. Investing in TB treatment strengthens the capacities of individuals and families to withstand financial and environmental threats. And investing in improvements to the built environment that reduce crowding as well as TB transmission could yield health benefits.



Building a Secure Health System

Health systems must be able to respond to the health and social needs of people over their entire life. In many developing countries with high infant and child mortality, a significant proportion of children die at home due to inadequate knowledge and practices regarding prevention, inappropriate home care, poor care-seeking behaviours and inadequate access to quality health care and other basic services. In many countries, public health systems and services are under-resourced and poorly maintained. Some development and economic policies combined with demographic and epidemiologic changes have increased the burden of disease that countries have to contend with. Health systems are having to pay the price of the failure of governments to fund long-term measures to promote and protect health.

In the first ever global analysis of health systems carried out by the World Health Organization, performance was found to depend on four vital factors: service provision, resource generation, financing and stewardship. The following factors have been found to be essential to improving health systems: making quality care available across the life span; preventing and controlling disease and protecting health; promoting regulations and legislation in support of health systems; developing health information systems and ensuring active surveillance; fostering the use of and innovation in health-related science and technology; building and maintaining human resources for health; and securing adequate financing.

Adaptation needs to take account of the opportunities and pressures on health systems that arise from decentralization and devolution of responsibilities to local government and civil society, from increased participation of the private sector and from the greater involvement of people in decision-making about many aspects of their health care.

Human resource development is a fundamental aspect of poverty reduction and is vital to the process of sustainable development, contributing to sustained economic growth, social development and environmental protection. Training and retention of health professionals is a major challenge, particularly in developing countries. Better health and education go hand in hand, with success in one reinforcing progress in the other. The mutually beneficial effects of health, education and other capacity-building approaches to development should be explicitly considered in the design and implementation of development strategies. To take advantage of this synergy, a multisectoral approach is needed.

Action Outside the Health Sector

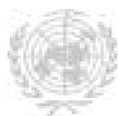
As noted in the first chapter, many of the key determinants of health and disease as well as the solutions lie outside the direct control of the health sector, in such areas as environment, water and sanitation, agriculture, education, employment, trade, tourism, energy and housing. Addressing the underlying determinants of health is essential to ensuring sustained, long-term health improvements as well as ecologically sustainable development. Protecting human health may be one of the most compelling reasons for pursuing environmental improvements, especially in conditions of poverty.

A shared health, environment and development agenda is needed to address both the direct threats to health associated with poor living conditions and the indirect threats associated with global change and development itself. This results in a win-win situation: The health sector gains because disease prevention can move upstream and take advantage of the intersectoral approach to development and environmental improvements. The environment sector gains because environmental issues become grounded in matters of local and direct concern to people.

In the case of water-related diseases, despite massive investment in water supply since 1980, the health benefits have been limited by poor progress in other areas, especially in human excreta management. (See Box 4.) The lack of good excreta management is not only a principal cause of sickness and disease, it is a major environmental threat to global water resources. Effective engagement of the health sector in water management will continue to be essential to ensure that potential health gains are realized and that adverse health impacts are prevented.

To tackle the health impacts of air pollution more effectively, comprehensive air pollution control programmes that adopt an intersectoral approach and that are based on the collaborative efforts of different entities, both private and governmental, are needed. Various technical, legal and economic instruments being used to control pollution are achieving success, in combination with improved administrative and jurisdictional arrangements that aim at more co-ordinated and integrated air pollution control. Nevertheless, the various sectoral responsibilities at different tiers of government must be clarified, and communities and the private sector must become more involved in developing and implementing control strategies.

Potential solutions to the problems associated with domestic fuel use in poor countries also demand intersectoral approaches and are highly dependent on the local context and the specific needs of a particular household energy system. Effective measures to address indoor air pollution include improved stoves, cleaner fuels, housing modifications and behavioural change measures. The benefits of such actions extend beyond direct health gains associated with reductions in exposure to indoor air pollution, and include the health and economic benefits from time saved collecting



Box 4: Water, Sanitation and Hygiene

Various diarrhoeal and other diseases are spread when excreta contaminate water supplies. Environmental factors such as poor sanitation, hygiene and access to clean water and food are virtually always implicated when the prevalence of diarrhoeal diseases is high, although other factors may also contribute.

Where conventional piped water services are lacking, water and sanitation facilities tend to be characterized by inadequacy and high levels of sharing. Difficult access to water means that women and children (for the most part) spend a great deal of time and effort collecting water. In urban areas, household expenditure on water can be high relative to incomes of poor people, deepening their impoverishment. Scarce sanitary facilities can lead to high fees for toilet use and even jeopardize women's security when they are forced to seek solitary places to defecate. In both rural and urban areas, human faeces are used as fertilizers. Although sound from an ecological perspective, this increases the risks of food contamination.

Although many routes of transmission of faecal-oral diseases have been identified, even within a given neighbourhood it is usually difficult to identify which are the most important. Several review studies comparing different risk factors have concluded that the association between sanitation and health is stronger than that between water supplies and health. There are also indications that the quantity of water is often more important to health than the quality. It is widely acknowledged that water and sanitation improvements unaccompanied by changes in hygiene behaviour will improve health less than they could. Such insights do not provide a basis for designing improvements or for ignoring residents' local knowledge and priorities. They do, however, highlight the importance of taking health issues seriously, and ensuring that local improvement efforts are well informed.

fuelwood, increased educational opportunities and income-generating activities, as well as ecological benefits resulting from less deforestation, soil erosion and accompanying losses in soil fertility.

Health in Sustainable Development Planning

Chapter 6 of *Agenda 21* specified that countries should set priorities for action based on co-operative planning by various levels of government, non-governmental organizations and local communities. This created an important opportunity for health authorities to influence national planning and to reverse the trend of environmentally damaging and health-threatening development. Many countries have instituted new policy and planning frameworks and have developed tools to make health and environment concerns an integral part of the planning process.

Of particular interest have been the National Environment and Health Action Plans. Local planning initiatives that address health and environment concerns in sustainable development have been collectively referred to as Local Environment and Health Action Plans, or LEHAPs. These include local *Agenda 21* initiatives that deal with health issues or involve the health sector in local development planning, as well as Healthy Cities–type approaches.

While such approaches at the national and local level have encouraged intersectoral consultation and collaboration that has led to a better understanding of the importance of environment and development issues within health ministries as well as a better understanding of the importance of health issues within environment ministries, a great deal of work remains to be done. This includes filling gaps in data availability and quality, improving detection of health and environment trends and strengthening linkages between health and environment data, as well as expanding capacity for implementation of initiatives.

Aligning Sectoral Policies for Health

The policies of all sectors that affect health directly or indirectly need to be analysed and aligned to maximize opportunities for health promotion and protection. This will require health policymakers to be more responsive to the primary motivations of policymakers from other sectors and to negotiate mutually beneficial policies.

Stronger joint action by health systems and the education sector, for instance, could contribute substantially and rapidly to the overall improvement of people's health and to a long-term reduction in health and economic inequalities between groups. Economic and fiscal policies can significantly influence the potential for health gains and their distribution in society. Fiscal policies that contribute to health—for instance, those that discourage use of harmful products or that stimulate consumption of nutritious foods and the adoption of healthy lifestyles—should be encouraged. Such policies, when combined with appropriate legislation and health education programmes, can retard and even reverse trends towards poorer health, particularly increases in non-communicable diseases and trauma.

Agricultural policies can incorporate specific disease prevention measures in irrigation schemes, actively promote integrated pest management to minimize the use of toxic chem-

icals, establish land use patterns that facilitate rather than discourage settlement in rural areas, encourage substitution for crops that harm health and ensure the production of safe and sufficient foods. An energy policy that favours health would support the use of cleaner energy sources and ensure that less hazardous and toxic waste is produced, that cleaner and more energy-efficient transport is available and that buildings are designed to be energy-efficient. The cumulative impact of such policies can be substantial. Their enactment can ensure that health is not sacrificed for narrow short-term sectoral or economic gains.

Strengthening Information on Health and Environment Linkages

Health, environment and sustainable development policies and programmes depend on ready access to information about a large variety of hazards—from biological hazards in food and water to chemical hazards such as pesticides and different physical and social factors. Health authorities need this information so they can effectively discharge their responsibility to protect public health. But such information also clarifies the extent to which health hazards arise from environmental conditions or the activities of sectors other than health.

An energy policy that favours health would support the use of cleaner energy sources and ensure that less hazardous and toxic waste is produced.

Environmental monitoring systems need to be designed to ensure that the exposure information collected is relevant to health concerns, and not used merely to monitor effectiveness of environmental control measures. Currently, few monitoring systems are set up with the aim of assessing the various exposure routes (such as air and water) of potential contaminants comprehensively.

Well-developed health-and-environment information systems, based on relevant data sets, are essential if scientific monitoring information is to be provided in support of policy and decision-making, planning and evaluation. In general, knowledge of environment and health risks is segmented, and information is incomplete. Commonly, mechanisms to ensure co-ordination at the national, regional and local levels regarding health effects, impact assessment and the development of adequate reporting systems are lacking. In addition, mechanisms are frequently not in place to ensure that such information, once obtained, is transmitted to the various relevant sectors for action.

Integrated databases on development hazards, environmental exposures and health are urgently required for impact and risk assessments. Indicators that are understandable and can be used by a wide range of sectors and communities are essential for bringing about change and tracking progress, as well as for building the evidence base for effective health, environment and development policies. Many stakeholders need to be involved from the beginning in the development and use of different tools and indicators.

Capacity Building

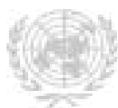
Strengthened capacity at national and local levels is needed, building on local knowledge and expertise. While there is more acceptance now of links between health status outcomes and the determinants of health, particularly those arising from the activities of sectors other than health, there are still problems in acting on this knowledge. Greater attention needs to be paid to developing managerial, administrative, institutional, human resource, legal and financial capacities to address health, environment and development linkages and to work in an integrated fashion both between and within sectors.

To intensify and sustain efforts to improve human health and promote equitable and sustainable development, better tools are needed to strengthen intersectoral action and align sectoral policies for health. Intersectoral reorganization in recent decades has meant that health capacities in many sectors (water, sanitation and hygiene, for example) have declined in some countries, sometimes through transfer to newly created institutions with a non-health orientation. Active participation of health expertise through Ministries of Health or their equivalents is essential in several areas, including the health impact assessment of development projects and policies and the regulation of basic services and products so as to protect and promote human health.

Securing Additional Financial Resources

Political commitment at all levels of government is clearly a prerequisite for success. Where there is such commitment, health, environment and sustainable development issues move higher on the development agenda.

New evidence in recent years indicates that health must be seen as a central factor not only in social development but also in a country's ability to compete on a global economic stage and achieve sustainable economic progress. The Commission on Macroeconomics and Health has suggested that each 10 per cent improvement in life expectancy can lead to an increase in economic growth of 0.3–0.4 per cent. Good health therefore must no longer be seen as an expen-



diture only rich countries can afford, but instead as a necessary investment by the poorest countries of the world. Investing in poor people's health is a prerequisite for other development-spurring activities.

The high societal burden attributable to disease requires unprecedented resources and global alliances to address health threats in a broader development framework. It is quite clear that the massive effort envisaged against the major burdens of disease and unnecessary death in the developing world will require substantially increased funding, including a greater share of domestic budgets being devoted to health. This will need to go not only into disease-specific programmes but also into securing the vehicle that provides much of the specific prevention and care that has to be implemented: the health system. Also, more effective co-ordination of donor funding and assistance is needed to ensure that essential links are maintained in the chain of reduction of disease burden and building of health systems.

Intensified efforts are needed to mobilize resources through higher allocations from national budgetary resources, increases in bilateral and multilateral assistance and provision of substantial and additional resources to, among others, the Global Fund to Fight AIDS, TB and Malaria. Consideration should be given to strengthening existing partnerships and alliances (such as the Global Alliance for Vaccines and Immunization) and to launching new partnerships and initiatives in such areas as the prevention of HIV/AIDS through education; maternal, child and reproductive health; affordable, essential drugs; and new alliances to create healthier environments—especially for children.

It has been estimated that, at a minimum, US$30–40 per person is needed to cover essential interventions, including for HIV/AIDS. This contrasts with actual spending on the order of US$13 per person in the poorest countries. The Commission on Macroeconomics and Health has recommended an increase in domestic budgetary resources of 1 per cent of gross national product by 2007 and 2 per cent by 2015. In addition, donor grants of US$27 billion a year will be needed by 2007, rising to US$38 billion in 2015. The Commission recommends that investment should focus on R&D that is geared towards new drugs, vaccines and diagnostics for tackling diseases of the poor. It also recommends decreasing prices of drugs through full use of the safeguards contained in the Agreement on Trade-related Aspects of Intellectual Property Rights.

The aggregate additional cost of scaling up interventions in low-income countries is on the order of US$66 billion a year, about half of which comes from donors. This is expected to result in saving 8 million lives a year and providing economic benefits that yield a sixfold return on investment. This applies whether the risks are from communicable diseases, maternal and child health conditions, poor nutrition, reproductive ill health, non-communicable diseases or unhealthy environments. Evidence-based multisectoral approaches to securing health for all that include civil society and private-sector actors and that are supported by stewardship from governments are key. Supportive alliances around the targets agreed to in recent international summits and conferences—especially the Millennium Development Goals—are urgently needed.

Health and the Environment: Frameworks for Action

There can be little doubt that health is central to sustainable development concerns. The goals of sustainable development cannot be achieved where there is a high incidence of debilitating illness and poverty, and the health of a population cannot be maintained without a healthy environment. *Agenda 21* recognized the importance of the health dimension, and singled out the need for action in a number of strategic areas, including meeting primary health care needs, control of communicable diseases, protecting vulnerable groups, meeting the urban health challenge and reducing health risks from environmental pollution and hazards.

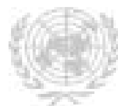
Since then there has been increasing recognition of the two-way linkages between health and poverty, the incidence of non-communicable diseases has risen and joined the prevailing burden of communicable diseases and globalization has become an increasingly important driver and influencing factor. Many international conferences and summits have developed a range of goals and targets (such as the Millennium Development Goals, three of which are directly related to health) as well as action strategies needed to improve global health. In this context, the World Summit on Sustainable Development (WSSD) is a unique opportunity to translate into practice the recommendations of such meetings on health in the context of sustainable development. During the WSSD preparatory process, a number of stakeholders expressed interest in appropriate initiatives to focus on this. Such initiatives would need to identify partners; specify clear targets, timetables, co-ordination and implementation mechanisms; and establish arrangements for monitoring progress, systematic and predictable funding and technology transfer. This chapter is intended to facilitate this process by providing frameworks for action in the area of health and sustainable development.

The WSSD calls for action from the international community, governments, non-governmental organizations (NGOs), the private sector and local communities to continue to implement sustainable development objectives. It is a call to recognize that sustainable development is possible with the resources available at hand. And it is a call to find new solutions to old problems. These frameworks for action on health and sustainable development highlight areas for action, targets for outcomes and examples of activities that could be carried out. These are meant to be indicative, a starting point rather than a conclusion, and will be further refined with discussion among stakeholders and in light of the outcomes of the WSSD. They are meant to stimulate ideas and discussion and are not an exhaustive account of all potential actions that might be taken to address health issues. They have been drawn from international conferences and agreements related to health, but have been regrouped here to reflect specific priorities that need to be addressed.

Clearly, tackling the disease burden in the face of enormous challenges at global, national and local levels requires a sustainable, comprehensive, integrated approach that reaches the poorest, most marginalized and displaced people. As indicated in the preceding chapter, while there is little doubt that additional financial resources are required for such actions to be fully implemented, a great deal can be done to make more effective and efficient use of existing resources. As has been shown, countries face a myriad of health-related problems linked to poverty and a lack of access to basic services and resources, as well as large-scale and rapid industrialization, urbanization and technological change. Improving health requires more than services delivered by the health sector alone; the contribution of other sectors is explicitly recognized as vital for improving the health and well-being of the population. Achieving intersectoral action is one of the largest challenges to be addressed.

Intersectoral approaches and partnerships have been developed to tackle particular diseases, both communicable and non-communicable, as well as their risk factors. Evidence shows that these diseases can be controlled in the world's poorest countries. There are numerous examples of successful partnerships in the field of health. One is the Global Alliance for Vaccines and Immunization—an international coalition of partners including WHO, UNICEF, the World Bank, governments, foundations, the private sector and research and public health institutions. It has four strategic objectives: to improve access to sustainable immunization services, to expand the use of all existing safe and cost-effective vaccines, to accelerate the introduction of new vaccines to strengthen research efforts and to make immunization coverage an integral part of the design and assessment of international development efforts, including debt relief.

Another example is the WHO/FAO/UNEP/UN Habitat Panel of Experts on Environmental Management for Vector Control. This partnership addresses the vector-borne disease problems that can result from water resource development projects as well as urban management and wastewater use. Important aspects of the work of this partnership include development policy adjustment, health impact assessments and field research to classify specific health risk factors in water resources development and to test the effectiveness of



environmental management interventions. The panel is also involved in capacity-building efforts to strengthen health sector input into the national development dialogue.

In the area of chemicals, the Intergovernmental Forum on Chemical Safety, formed in 1994, is a non-institutional arrangement in which national governments, intergovernmental organizations and NGOs can meet to consider issues associated with the assessment and management of chemical risks. An example of how this mechanism has borne fruit is the efforts to develop recommendations to UNEP's Governing Council on persistent organic pollutants. This subsequently led to the negotiation and adoption of the Stockholm Convention. Another partnership example in this area is the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), which was formed in 1995 as a mechanism to co-ordinate the work of intergovernmental organizations active in chemical safety—UNEP, WHO, ILO, FAO, UNIDO, UNITAR and OECD. The successes of this partnership have been numerous, including introducing a globally harmonized system for classification and labeling of chemicals, increasing the numbers of risk assessments developed and working to address the dangers of chemical accidents.

Frameworks for Action

Action Area 1: Reduce poverty and malnutrition.

Indicative Targets/Milestones

Halve, between 1990 and 2015, the proportion of people whose income is less than US$1 a day.

Halve between 1990 and 2015 the proportion of people who suffer from hunger.

Improve availability and access for all to sufficient, safe, culturally acceptable and nutritionally adequate food; increase consumer health protection; address issues of micronutrient deficiency; and implement existing internationally agreed commitments and relevant standards and guidelines.

Reduce malnutrition in children under 5 years of age by at least one-third, reduce the rate of low birth weight by at least one-third, and improve the nutrition of mothers.

Reduce by one-third the prevalence of anaemia, including iron deficiency, by 2010 and accelerate progress towards reduction of other micronutrient deficiencies.

Examples of Activities

- Enhance capabilities at all levels to address ill health and increase investment in health through poverty reduction strategies.
- Monitor and tackle health disparities within and between countries by developing health services that respond to poor people's needs, and by strengthening and scaling up disease control and prevention programmes, including environmental health interventions.
- Seek poor people's participation in health system action, with particular focus on gender equity.
- Develop strategies and programmes that will reduce major forms of malnutrition, obtain surveillance data that is effective in planning and targeting effective interventions, and produce guidance and training on effective nutritional interventions.

Action Area 2: Improve access to affordable, efficient and effective health services and reduce infant, child and maternal mortality.

Indicative Targets/Milestones

Develop programmes and initiatives to reduce, by the year 2015, mortality rates for infants and children under 5 by two-thirds, and maternal mortality rates by three-quarters of the prevailing rate in 2000, and reduce disparities between and within industrial and developing countries as quickly as possible, with particular attention to eliminating the pattern of disproportionate and preventable mortality among girl infants and children.

Promote equitable and improved access to affordable and efficient health care services, including prevention, at all levels of the health system, to essential and safe drugs at affordable prices, to immunization services and safe vaccines, and to medical technology.

Promote the preservation, development and use of effective traditional medicine knowledge and practices, where appropriate, in combination with modern medicine, recognizing indigenous and local communities as custodians of traditional knowledge, as appropriate, consistent with international law.

Improve the development and management of human resources in health care services.

Strengthen environmental health services.

Ensure access to preventive and curative health care systems in order to tackle health problems.

Improve access to comprehensive, essential, quality health care that is supported by public health functions.

Strengthen primary health care, family planning facilities and family planning methods.

Reduce by three-quarters, between 1990 and 2015, the maternal mortality rate.

Ensure equal access of women to health care services, giving particular attention to maternal and emergency obstetric care.

Address effectively, for all individuals of appropriate age, the promotion of healthy lives, including reproductive and sexual health, consistent with the commitments and outcomes of recent UN conferences and summits, including the World Summit for Children, UNCED, ICPD, the Social Summit and the Fourth World Conference on Women, and their respective reviews and reports.

Improve the proportion of births assisted by skilled attendants, strengthen access to essential obstetric care and strengthen efforts to provide universal access to high-quality primary health care.

Examples of Activities

- Review action plans for delivery of basic health services at the local level to ensure that priority problems of poor people are adequately addressed.
- Expand coverage of basic health services to ensure that all children have access to prompt, affordable, competent care when they are sick, ensuring high coverage of immunizations (at least 90 per cent of all children in each country and at least 80 per cent in each district).
- Make essential drugs affordable and available to the world's poorer nations through multiple actions, including the multilateral trade system, national policies and institutional drug supply management.
- Strengthen infrastructure, equipment and technology in primary, secondary and tertiary institutions.
- As appropriate, strengthen capability of health systems to address chronic diseases that cause the greatest suffering and loss of productivity.
- Increase ability of countries to integrate rehabilitation services in primary health care for early detection and management of disabilities.
- Implement long-range health and human resource planning to train, recruit and retain staff, and develop codes of conduct for international recruitment of health professionals.
- Strengthen health services for displaced communities and those affected by war or famine or environmental degradation.
- Strengthen surveillance, monitoring and evaluation systems and capacity to respond to emergencies.
- Increase rapid detection and response capacities for disease outbreaks, epidemics and emerging health threats.
- Ensure ready and affordable access to essential obstetric care, well-equipped and adequately staffed maternal health care services, skilled attendance at delivery, emergency obstetric care, effective referral and transport to higher levels of care when necessary, post-partum care and family planning in order to, among other things, promote safe motherhood.

Action Area 3: Control or eradicate major diseases.

Indicative Targets/Milestones

Halt by 2015 and begin to reverse the spread of HIV/AIDS.

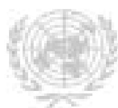
Halt by 2015 and begin to reverse the incidence of malaria and other major diseases.

Implement, within the agreed time frames, all commitments agreed in the UNGASS declaration on HIV/AIDS, emphasizing in particular the reduction of HIV prevalence among young men and women aged 15–24 by 25 per cent in the most affected countries by 2005 and globally by 2010, as well as combating malaria, TB and other diseases, by *inter alia*:

- implementing national preventive and treatment strategies, regional and international co-operation measures as well as development of international initiatives to provide special assistance to children orphaned by HIV/AIDS;
- fulfilling commitments for the provision of sufficient resources to support the Global Fund to Fight AIDS, TB and Malaria, while promoting access to the Fund by countries most in need; and
- mobilizing adequate public and encouraging private financial resources for research and development on diseases of the poor, such as HIV/AIDS, malaria, TB, directed at biomedical and health research, as well as new vaccine and drug development.

Per the Abuja Declaration, 2000, initiate appropriate and sustainable action to strengthen the health systems to ensure that by 2005:

- at least 60 per cent of those suffering from malaria have prompt access to and are able to use correct, affordable and appropriate treatment within 24 hours of the onset of symptoms;
- at least 60 per cent of those at risk of malaria, particularly pregnant women and children under 5, benefit from the most suitable combination of personal and community protective measures, such as insecticide-treated mosquito nets and other accessible and affordable interventions to prevent infection and suffering; and



- at least 60 per cent of all pregnant women who are at risk of malaria, especially those in their first pregnancies, have access to chemoprophylaxis or presumptive intermittent treatment.

Develop or strengthen, where applicable, preventive, promotive and curative programmes to address non-communicable diseases and conditions such as cardiovascular diseases, cancer, diabetes, chronic respiratory diseases, injuries, violence and mental health disorders, as well as associated risk factors including alcohol, tobacco, unhealthy diets and lack of physical activity.

Examples of Activities

- Ensure use of evidence-based policies and strategies at all levels for the prevention, control and elimination of targeted communicable and non-communicable diseases, emphasizing best practice.
- Develop new drugs, vaccines and diagnostics and cost-effective interventions for prevention and control of diseases, with particular priority for diseases affecting the poor.
- Provide accessible, inexpensive condoms, treatment of other sexually transmitted diseases, voluntary counselling and testing, sexual education in schools and beyond, accelerated access to treatment, care, and support for people living with HIV/AIDS; prevent mother-to-child transmission; implement harm reduction to reduce HIV infection in drug users, sex and migrant workers and youth.
- Increase the proportion of eligible countries with approved proposals to the Global Fund on AIDS, TB and Malaria, and improve quality of grant applications.
- Ensure effective management of malaria, including early detection and response to outbreaks, rapid diagnosis and treatment of those who are ill, chemoprophylaxis for pregnant women, increased use of insecticide-treated bed nets.
- Expand environmental management measures, including vector control and land and water management strategies.
- Strengthen understanding of linkages between ecosystem and climatic changes and vector-borne diseases.
- Equip governments, international agencies and other partners to implement national and transnational approaches to tobacco control.
- Link alliances and partnerships to enable all at risk to benefit from these strategies through scaling up coverage of effective services.
- Build capacity in surveillance, research, legislation, economics and health education for communicable and non- communicable disease control and prevention.
- Equip governments and their partners to implement cost-effective strategies to prevent and mitigate the consequences of violence and unintentional injuries and disabilities.

Action Area 4: Improve health and sustainable development planning.

Indicative Targets/Milestones

Integrate health concerns, including those of the most vulnerable populations, into strategies, policies and programmes for poverty reduction and sustainable development.

Provide technical and financial assistance to developing countries as well as countries with economies in transition to implement the Health for All Strategy, including health information systems and integrated databases on development hazards.

Launch international capacity-building initiatives, as appropriate, that assess health and environment linkages and use the knowledge gained to create more effective national and regional policy responses to environmental threats to human health.

Examples of Activities

- Disseminate knowledge and good practice on health gains from intersectoral policy.
- Address health in multilateral trade and environmental agreements and in Poverty Reduction Strategy Papers (PRSPs).
- Develop and apply tools to promote integrated action for health, such as health impact assessment of major development projects, policies and programmes, and indicators for health and sustainable development.
- Include health in sustainable development planning efforts such as *Agenda 21*s and PRSPs, and improve intersectoral collaboration between different tiers of government, government departments and NGOs.
- Strengthen advocacy and health communications at all levels in relation to major risk factors.
- Strengthen partnerships for health and sustainable development, including community participation.

Action Area 5: Address health and environment linkages.

Indicative Targets/Milestones

Transfer and disseminate—on mutually agreed terms, including through public-private multisector partnerships—technologies for safe water, sanitation and waste management for rural and urban areas in developing countries as well as countries with economies in transition, using international financial support, taking into account country-specific conditions and gender equality, including specific technology needs of women.

Halve, by 2015, the proportion of people without sustainable access to safe drinking water—significantly reducing the prevalence of water-related diseases.

Intensify water pollution prevention to reduce health hazards and protect ecosystems by introducing technologies for affordable sanitation and industrial and domestic wastewater treatment, by mitigating the effects of groundwater contamination and by establishing, at the national level, monitoring systems and effective legal frameworks.

Increase access to sanitation to improve human health and reduce infant and child mortality, by giving priority to water and sanitation in national sustainable development strategies and poverty reduction strategies where they exist.

Deliver basic health services for all and reduce environmental health threats, taking into account the special needs of children and the linkages between poverty, health and environment, with provision of financial resources, technical assistance and knowledge transfer to developing countries and countries with economies in transition.

Strengthen and promote ILO and WHO programmes to reduce occupational deaths, injuries and illnesses and link occupational health with public health promotion as a means for promoting public health and education.

Reduce respiratory diseases and other health impacts resulting from air pollution, with particular attention to women and children, by:

- strengthening regional and national programmes, including through public-private partnerships, with technical and financial assistance to developing countries;
- supporting the phaseout of lead in gasoline;
- strengthening and supporting efforts for the reduction of emissions, through the use of cleaner fuels and modern pollution control techniques; and
- assisting developing countries to provide affordable energy to rural communities, particularly to reduce dependence on traditional fuel sources for cooking and heating, which affect the health of women and children.

Phase out lead in lead-based paints and other sources of human exposure; work to prevent, in particular, children's exposure to lead; and strengthen monitoring and surveillance efforts as well as treatment of lead poisoning.

Reduce health impacts of environmental and occupational exposure to chemicals, including chemicals and toxic substances, lead, asbestos and persistent organic pollutants.

Promote the ratification and implementation of relevant international instruments on chemicals and hazardous waste, including the Rotterdam Convention on Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade, so that it can enter into force by 2003, and the Stockholm Convention on Persistent Organic Pollutants, so that it can enter into force by 2004, and encourage and improve co-ordination as well as supporting developing countries in their implementation.

Further develop a strategic approach to international chemicals management based on the Bahia Declaration and Priorities for Action beyond 2000 of the Intergovernmental Forum on Chemical Safety by 2005.

Encourage partnerships to promote activities aimed at enhancing environmentally sound management of chemicals and hazardous wastes, at implementing multilateral environmental agreements, at raising awareness of issues relating to chemicals and hazardous waste and at encouraging the collection and use of additional scientific data.

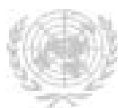
Support developing countries in strengthening their capacity for the sound management of chemicals and hazardous wastes by providing technical and financial assistance.

Invite all states that have not already done so to ratify the Cartagena Protocol on Biosafety, and invite those that have done so to promote its effective implementation at national, regional and international levels and to support developing countries and countries with economies in transition technically and financially in this regard.

Advance implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and the Montreal Declaration on the Protection of the Marine Environment from Land-based Activities, with particular emphasis in the period 2002–06 on municipal wastewater.

Examples of Activities

- Work with communities to implement interventions to increase healthy behaviour with regard to water and sanitation and to implement control measures for water-borne illness.



- Strengthen understanding of linkages between ecosystem and climatic changes and vector-borne diseases.
- Conduct science-based risk assessments on the health impacts of global change, biodiversity, water resources, disease vector habitats and other ecosystems.
- Develop evidence-based normative guidelines in water and air quality, workplace hazards, and radiation.
- Develop good practice tools and guidelines on cost-effective interventions for reduction of risks from exposure to environmental health threats.
- Take measures to address the special vulnerability of children to environmental health threats.
- Ensure the conservation, sustainable management and use of biological resources as a source of both traditional and modern medicines.
- Improve intersectoral collaboration between health, environment, transport, industry, development and other sectors.
- Promote regional and sub-regional agreements to reduce the health and environmental impacts of air pollution, both ambient and domestic.
- Promote and encourage technological development and transfer of technology for reducing the health and environmental impacts of air pollution, both ambient and domestic.
- Provide support for prevention, preparedness and response to chemical incidents and poisonings, radiation accidents and other emergencies.
- Develop further a strategic approach to international chemicals management.
- Reduce and eliminate releases of persistent organic pollutants into the environment.
- Address the threats to human health and the environment posed by persistent inorganic pollutants.
- Conduct surveillance and monitoring of food-borne diseases, improve responsiveness to food-borne disease outbreaks and emergencies and reduce the risk of unsafe food by strengthening microbiological and chemical risk assessment and by developing effective tools and technologies.
- Enhance appropriate scientific and technical co-operation on biotechnology and biosafety, and promote practical measures for improving access to the results and benefits arising from biotechnologies based on genetic resources.

Action Area 6: Improve capacities in risk management/disaster preparedness related to health.

Indicative Targets/Milestones

Develop relevant early warning systems at local, national and regional levels.

Examples of Activities

- Develop policies and strategies to address health issues in emergency situations.
- Put in place surveillance, monitoring and health information systems for emergency response, preparedness and vulnerability reduction.
- Strengthen capacity to respond to emergencies, increasing local ability to reduce vulnerability of people and health facilities and to prepare for and act in emergency situations.
- Strengthen institutional and human capacities to manage health-related risks.
- Develop integrated multi-hazards approach to address vulnerability, risk assessment and disaster management related to health.
- Develop programmes for mitigating the health effects of extreme events.
- Strengthen partnerships and co-operation for health-related disaster reduction and risk management.

Building and Implementing Partnerships

The international community has a vital role to play in helping developing countries achieve objectives in health and the environment for sustainable development. Clearly, various co-operative actions are needed on the part of governments, businesses, civil society, international organizations and other relevant stakeholders to address the challenges. Forging partnerships among all stakeholders therefore constitutes a key component of this action agenda. This section provides a brief summary of some of the critical elements required for building and implementing partnerships in health and the environment.[1]

The CSD, based on the preparatory process leading up to the WSSD, has envisaged that forming and promoting new and innovative partnerships will be critical to meet the challenges articulated in this document. These partnership initiatives are foreseen to be basically of a voluntary nature—agreed on through mutual consultations among the stakeholders. The main focus of these initiatives will be to supplement and complement the WSSD-negotiated outcome and the ongoing work by governments and other stakeholders in the implementation of *Agenda 21*. As such, the partnership ini-

tiatives will give rise to a series of commitments and action-oriented coalitions focused on deliverables and would contribute to translating the political commitments into action. In response to a wish for additional guidance on the elaboration of partnerships expressed during the informal meetings on partnerships in PrepCom 3, an addendum to the Chairman's explanatory note, entitled "Further Guidance for Partnerships/Initiatives", has also been provided.[2]

The critical issue is how to translate the idea of partnership building from global or regional-level discussions and advocacy campaigns into local actions. New and innovative partnerships will have to be formed that may involve a wide range of stakeholders and may have many different kinds of ways for partners to participate.

A framework is proposed here to facilitate this process without which individual partnership initiatives devised by a wide range of actors may result in duplication of efforts and restrictions on resource inputs by stakeholders:

Consultative process. All partnerships begin with a dialogue. This can be initiated by a lead partner or partners, by a global consensus or by some other catalyst. The role of a champion or lead partner in moving the partnership forward in the early stages is critical. A broad consultative process for partnerships may also be necessary to assist in sharing experiences and learning at all levels (local, national, regional and global), as individual initiatives will not be isolated but can be informed by and grow from broader processes and initiatives.

Definition of objectives. The next step is scoping and definition of objectives, targets, activities and implementation and co-ordination arrangements associated with the partnership. This requires consultation among different actors in order to harmonize the views and needs of all stakeholders—donors, participating institutions, technical groups and recipients. Underlying principles around which partnership objectives could be defined are: ensuring mutuality of interests, promoting a shared sense of purpose, and engendering respect for all stakeholders.

Mobilization of resources. This stage in the process is crucial to the overall success of the partnership, as it results in the provision of actual (financial, institutional and human) resource inputs. This stage often needs to be initiated in conjunction with the task definition work done by stakeholders.[3]

Implementation of partnerships. All partnerships are dynamic processes or works in progress, and the stage at which the partnership is actually launched or implemented provides all stakeholders with an opportunity to see partnership activities and organizations in operation. Partners can also use this as an opportunity to examine whether additional skills and resources are needed to strengthen the partnership.

Tracking progress and results. At this stage, the partnership initiative is already under way and all stakeholders can now review and evaluate existing operations and experiences. The tracking of short-, medium- and long-term results is crucial in the evolution and growth of a partnership and should allow for modifications and further refining of tasks and activities based on results/targets achieved.

Scaling-up of partnership initiatives. Once a partnership initiative has been established, appropriate steps are needed to scale up and link with other activities in contiguous areas. Going to scale requires the adoption of partnership strategies and linkage mechanisms that can meet challenges involved in achieving agreed objectives.

All initiators of partnerships were invited to complete and submit an Information Sheet related to a specific initiative to the WSSD Secretariat.[4] The Secretariat has posted on its Web site all partnership proposals received. Detailed information on these may be obtained from the official Web site of the Summit. A number of proposals for partnerships have been developed, and many more are still in the process of being developed.

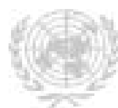
Endnotes

1 A listing of some selected partnerships is available in Annex K of the World Bank document (2001) "Making Sustainable Commitments: An Environment Strategy for the World Bank," at http://gefweb.org/Documents/Council_Documents/GEF_C17/C.17.Inf15.Annexes.pdf.

2 The document entitled "Further Guidance" is a two-page addendum available at http://www.johannesburgsummit.org/html/documents/prepcom3docs/summary_partnerships_annex_05040.doc.

3 Different financing mechanisms, such as those related to regional development banks, the World Bank and the Global Environmental Facility, are potential sources of finance. In addition, an active role for commercial banks and investment companies is envisaged.

4 The Information Sheet is available at http://www.johannesburgsummit.org/html/sustainable_dev/partnerships2_form.doc.



Major Agreements on Health and the Environment and Their Objectives

This chapter provides the reader with an overview of the major conferences and international agreements that provide the broad background for today's health and environment policies and decision-making. Over the last decade, numerous international conferences have discussed and agreed on steps required to speed up the implementation of *Agenda 21*, which highlighted the linkages between health and sustainable development and identified the main areas in which action needed to be taken. Since the Earth Summit in 1992, health has been central to the discussion at a number of important international conferences and summits. These include, among others, conferences on population, women, human settlements and aging. The World Social Summit and the Millennium Summit also had health as one of their central features, and at the Millennium Summit world leaders agreed on specific time-bound targets to be reached by 2015.

These international meetings have identified several key health issues and challenges, with increasing focus on the need to improve the health conditions of the poor and the vulnerable. Other conferences of the last decade have also addressed important health and environment linkages. They range from those that aim at phasing out ozone-depleting substances to those dealing with hazardous wastes, chemicals, pesticides and persistent organic pollutants. For the area of biotechnology, the Biosafety Protocol serves as a supplementary agreement to the Convention on Biological Diversity for ensuring the safe handling and use of living modified organisms.

Conference/Agreement: The Montreal Protocol on Substances That Deplete the Ozone Layer

Date: September 1987

Main Focus: The Montreal Protocol aims to reduce and eventually eliminate the emissions of human-made ozone-depleting substances. As the ozone layer absorbs most of the harmful ultraviolet-B radiation from the sun and screens out lethal UV-C radiation, it is essential to life as we know it.

http://www.unep.org/ozone/

Conference/Agreement: The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

Date: March 1989

Main Focus: A central goal of the Basel Convention is environmentally sound management (ESM), the aim of which is to protect human health and the environment by minimizing hazardous waste production whenever possible. ESM means addressing the issue through an 'integrated life-cycle approach', which involves strong controls from the generation of a hazardous waste to its storage, transport, treatment, reuse, recycling, recovery and final disposal.

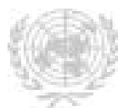
http://www.basel.int/

Conference/Agreement: United Nations Conference on Environment and Development, Rio de Janeiro, Brazil

Date: June 1992

Main Focus: The conference recognized that human beings are at the centre of concerns for sustainable development and are entitled to a healthy and productive life in harmony with nature. Chapter 6 of *Agenda 21*, "Protecting and Promoting Human Health", called for action in five key areas: to meet primary health care needs, particularly in rural areas; to control communicable diseases; to protect vulnerable groups; to meet the urban health challenge; and to reduce health risks from environmental pollution and hazards. Many other chapters also highlighted the importance of health issues in the context of specific issues and themes.

http://www.un.org/esa/sustdev/agenda21.htm



Conference/Agreement: International Conference on Population and Development, Cairo, Egypt

Date: 1994

Main Focus: It was agreed that population and development are inextricably linked, and that empowering women and meeting people's needs for education and health, including reproductive health, are necessary for both individual advancement and balanced development. Advancing gender equality, eliminating violence against women and ensuring women's ability to control their own fertility were acknowledged as cornerstones of population and development policies. Concrete goals were focused on providing universal education and reproductive health care, including family planning, and on reducing infant, child and maternal mortality.

http://www.unfpa.org/icpd/background.htm

Conference/Agreement: World Summit for Social Development, Copenhagen, Denmark

Date: 1995

Main Focus: The Social Summit aimed to reach a new consensus on the need to put people at the centre of development and to conquer poverty—the goal of full employment and the fostering of social integration being overriding objectives of development. It was decided to focus efforts and policies to address the root causes of poverty and to provide for the basic needs of all. These efforts included the elimination of hunger and malnutrition; the provision of food security, education, employment and livelihood; and the provision of primary health care services, including reproductive health care. Major goals were to develop and implement policies to ensure that all people have adequate economic and social protection during unemployment, ill health, maternity, child-rearing, widowhood, disability and old age, and to promote and attain the goals of universal and equitable access to quality education, the highest attainable standard of physical and mental health, and access for all to primary health care.

http://www.un.org/esa/socdev/wssd/

Conference/Agreement: Global Programme of Action for the Protection of the Marine Environment from Land-based Activities

Date: November 1995

Main Focus: The Global Programme of Action aims to prevent the degradation of the marine environment by assisting states in taking actions that will lead to the prevention, reduction, control or elimination of the degradation of the marine environment, as well as its recovery from the impacts of land-based activities. Sewage and wastewater, persistent organic pollutants (including pesticides), heavy metals, oils, nutrients and sediments—whether brought by rivers or discharged directly into coastal waters—take a severe toll on human health and well-being, as well as on coastal ecosystems.

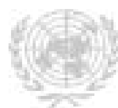
http://www.gpa.unep.org/

Conference/Agreement: Second UN Conference on Human Settlements (Habitat II), Istanbul, Turkey, and Istanbul +5 (New York)

Date: 1996

Main Focus: The conference aimed to ensure adequate shelter for all and make human settlements safer, healthier and more livable, equitable, sustainable and productive. In order to achieve this overarching objective, goals were established, such as developing and implementing national, subnational and local health plans or strategies, especially in developing countries; developing and implementing programmes to ensure universal access for women throughout their lives to the full range of affordable health services; improving shelter conditions so as to mitigate health and safety risks; promoting access to safe drinking water for all; and facilitating provision of basic infrastructure and urban services. In addition, Istanbul+5 called for intensified international and national efforts against HIV/AIDS, in particular to implement policy actions to address the impact of HIV/AIDS on human settlements.

http://www.unhabitat.org/istanbul+5/declaration.htm



Conference/Agreement: Rio+5: Special Session of the General Assembly to Review and Appraise the Implementation of Agenda 21

Date: June 1997

Main Focus: Adopted the Programme for the Further Implementation of *Agenda 21*, which called for the provision of universal access to basic social services including health care, nutrition, clean water and sanitation, along with policies to promote economic development, social development, environmental protection, poverty eradication and the expansion of health care, including reproductive health care and both family planning and sexual health, consistent with the report of the International Conference on Population and Development. An overriding goal was the implementation of the Health for All Strategy and the need to protect children from environmental health threats and infectious diseases, to improve and expand basic health and sanitation services and to provide safe drinking water. Also emphasized were the need to promote immunization programmes, promote accelerated research and vaccine development, reduce the transmission of other major infectious diseases, reduce risks due to ambient and indoor air pollution and lead poisoning, consider the environmental health impacts of tobacco, improve health risk and impact assessment and address health issues in national and local sustainable development planning processes.

http://www.un.org/esa/earthsummit/

Conference/Agreement: 51st World Health Assembly, Geneva, Switzerland

Date: May 1998

Main Focus: The renewed Health for All (HFA) in the 21st Century strategy of WHO was given effect through relevant regional and national policies and strategies. Ten health goals and targets were established to increase life expectancy and quality of life, improve equity in health between and within countries and ensure access to health systems and services. They dealt with measures to improve survival; reverse the five major pandemics; eradicate and eliminate certain diseases; improve access to water, sanitation, food and shelter; strengthen measures to promote health; improve access to quality health care; implement and monitor national HFA policies; strengthen health information and surveillance systems; and support research for health. Four strategic lines of action were singled out to make health central to development: combating poverty, promoting health in all settings, aligning sectoral policies for health and including health in sustainable development planning.

http://www.who.int/inf-pr-1998/en/pr98-WHA8.html

Conference/Agreement: Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Date: September 1998

Main Focus: The convention uses the Prior Informed Consent (PIC) procedure to help governments decide whether they will accept imports of certain hazardous chemicals. If they decide they cannot safely manage a chemical subject to the PIC procedure, they can refuse its importation. If a government does choose to import such hazardous chemicals or pesticides, they do so having been made aware of information on the potential health and environmental dangers.

http://www.pic.int

Conference/Agreement: International Conference on Population and Development +5

Date: June 1999

Main Focus: A review of the ICPD was undertaken that confirmed that the agenda was practical, realistic and put into practice. It identified key actions needed for further implementation of the ICPD Programme of Action and new benchmarks for measuring progress towards ICPD goals. These included goals and objectives to ensure universal access to primary health care; universal access to a full range of comprehensive reproductive health care services, including family planning; reductions in infant, child and maternal morbidity and mortality; and increased life expectancy.

http://www.unfpa.org/icpd/news.htm

Conference/Agreement: Cartagena Protocol on Biosafety

Date: January 2000

Main Focus: The Protocol is a supplementary agreement to the Convention on Biological Diversity. It aims to ensure the safe transfer, handling and use of living modified organisms that result from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. It establishes an advance informed agreement procedure to ensure that countries are provided with the information necessary to make informed decisions before agreeing to import such organisms.

http://www.biodiv.org/biosafety

Conference/Agreement: **Fourth World Conference on Women, Beijing; Beijing Declaration and the Platform for Action, and Beijing +5**

Date: June 2000

Main Focus: The Beijing Declaration recognized and reaffirmed the right of all women to control all aspects of their health, in particular their own fertility. Accelerating the implementation of the Nairobi Forward-looking Strategies for the Advancement of Women and removing all the obstacles to women's active participation in all spheres of public and private life through a full and equal share in economic, social, cultural and political decision-making was a key aim. Actions were proposed to increase women's access throughout the life cycle to appropriate, affordable and quality health care, information and related services; to strengthen preventive programmes that promote women's health; to undertake gender-sensitive initiatives that address sexually transmitted diseases, HIV/AIDS and sexual and reproductive health issues; to promote research and disseminate information on women's health; and to increase resources and monitor follow-up for women's health.

http://www.un.org/womenwatch/daw/beijing/platform/

Conference/Agreement: **24th Special Session of the United Nations General Assembly, Social Summit +5**

Date: July 2000

Main Focus: The conference aimed to implement the Copenhagen Declaration and Programme of Action, including the strategies and agreed targets contained therein. The Copenhagen Declaration and Programme of Action would remain the basic framework for social development in the years to come. It aimed to place particular focus on, and give priority attention to, the fight against the world-wide conditions that pose severe threats to the health, safety, peace, security and well-being of people. Among these conditions are chronic hunger; malnutrition; illicit drug problems; natural disasters; and endemic, communicable and chronic diseases, in particular HIV/AIDS, malaria and tuberculosis, among others. Health measures highlighted included measures to improve access to primary health care; health promotion and disease prevention measures; increased efforts to ensure adequate, affordable and universally accessible health care and services, including sexual and reproductive health; and promotion of healthy and safe settings at work.

http://www.un.org/esa/socdev/geneva2000/

Conference/Agreement: **Millennium Development Goals**

Date: September 2000

Main Focus: With the purpose of combating poverty and inequality, a set of goals and targets were defined that aimed to reduce the under-5 mortality rate, the maternal mortality rate, the spread of HIV/AIDS, the incidence of malaria and other major diseases and the proportion of people without sustainable access to safe drinking water. (See inside front cover for Millennium Development Goals.)

http://www.undp.org/mdg/

Conference/Agreement: **The Bahia Declaration on Chemical Safety**

Date: October 2000

Main Focus: The Bahia Declaration is a commitment by the Intergovernmental Forum on Chemical Safety (IFCS) to strengthen efforts and build partnerships to accomplish specific targets during the next decade. The Declaration recognizes the importance of providing technical and financial assistance and technology transfer to enable accomplishment of IFCS priorities and recommits to challenges set out in Chapter 19 of *Agenda 21*. Key goals are those specified in its Priorities for Action and include the potential to improve chemical safety at all levels; prevent or reduce adverse health and environment effects of chemicals throughout their life cycle; be suitable for immediate implementation by most countries; and use existing tools for rapid implementation.

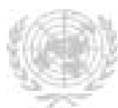
http://www.who.int/ifcs/forum3/index.html

Conference/Agreement: **Stockholm Convention on Persistent Organic Pollutants**

Date: May 2001

Main Focus: The Stockholm Convention is a global treaty to protect human health and the environment from persistent organic pollutants (POPs)—chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife. POPs circulate globally and can cause damage wherever they travel.

http://www.chem.unep.ch/sc/



Conference/Agreement: United Nations General Assembly Special Session on HIV/AIDS

Date: June 2001

Main Focus: Adopted the Declaration of Commitment on HIV/AIDS, and called, as a matter of urgency, to review and address the problem of HIV/AIDS in all its aspects, as well as to secure a global commitment to enhancing co-ordination and intensification of national, regional and international efforts to combat it in a comprehensive manner.

http://www.un.org/ga/aids/coverage/

Conference/Agreement: World Conference Against Racism, Racial Discrimination, Xenophobia and Related Intolerance

Date: September 2001

Main Focus: Adopted the Declaration and Programme of Action to eliminate racial discrimination in relation to issues such as employment and social services (including education and health) and called on nations to consider positively concentrating additional investments in issues such as health care systems, supported by international co-operation as appropriate.

http://www.unhchr.ch/html/racism/Durban.htm

Conference/Agreement: Declaration on the Trade-Related Aspects of Intellectual Property Rights

Date: November 2001

Main Focus: Stressed the need for the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) to be part of the wider national and international action to address the gravity of the public health problems afflicting many developing and least-developed countries, especially those resulting from HIV/AIDS, tuberculosis, malaria and other epidemics. Among other things, reaffirmed the commitment of industrial-country members to provide incentives to their enterprises and institutions to promote and encourage technology transfer to least-developed country members.

http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.htm

Conference/Agreement: United Nations General Assembly Special Session on Children

Date: May 2002

Main Focus: To improve living conditions for children and their chances for survival by increasing access to health services for women and children, reducing the spread of preventable diseases, creating more opportunities for education, providing better sanitation and greater food supply and protecting children in danger.

http://www.un.org/ga/children/

Conference/Agreement: XIV International AIDS Conference

Date: July 2002

Main Focus: Adopted the Barcelona Framework to ensure that knowledge gained from science and experience is translated into action. The major focus was to maintain and increase the scientific quality of the meeting; to integrate science and action; to highlight prevention science; to highlight the burden of intravenous drug use in the pandemic; and to facilitate participation from around the world, particularly the most affected areas such as sub-Saharan Africa, South and Southeast Asia, Eastern Europe and Latin America and the Caribbean.

http://www.aids2002.org/

UN System Capacities in Health and the Environment

A large number of agencies in the UN System deal with various aspects of health in relation to sustainable development—some directly, others more indirectly. The most significant ones are mentioned here. The World Health Organization (WHO) is the lead agency on international health, and also the task manager for Chapter 6 of *Agenda 21* on "Protecting and Promoting Human Health". As indicated in this chapter, WHO carries out a wide variety of technical and normative functions, many of which are performed in collaboration with other UN agencies and institutions.

Other agencies, such as UNICEF, are responsible for a number of activities and programmes in health that are focused on children. As a field-based agency, UNICEF implements mother and child survival programmes, as well as those related to micronutrients and immunization. While several UN agencies have responsibility for HIV/AIDS, UNAIDS provides high-level overall global advocacy. The United Nations Population Fund co-ordinates UN activities in relation to reproductive health services (including increasing access to knowledge and technologies for family planning). The World Bank finances and facilitates the development health infrastructure and programmes as part of its overall development agenda and does so using norms and standards developed by WHO.

Other UN agencies whose mandates are indirectly related to health, such as those with lead responsibilities for the environment, human settlements or the work environment, address many physical factors needed to sustain and maintain health. The International Atomic Energy Agency (IAEA) and the Food and Agriculture Organization (FAO) work closely with WHO to address, for instance, cancer control and food irradiation (in the case of IAEA) and agricultural policy in relation to food and nutrition (in the case of FAO). Many other agencies, if not most, have some aspects of their work programmes that relate to health in one way or another.

This is an indicative list of the UN entities most active in the field of health, their main focus areas and some of their key initiatives. Its purpose is to give World Summit participants an overview of the work of the UN family as a whole as well as an indication of the breadth and depth of the organization's programme in this area. It is not a comprehensive or authoritative listing of all UN System activities in health. The information was gathered primarily from the Web sites of the organizations featured. Any omissions or errors were inadvertent and are sincerely regretted.

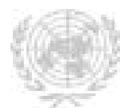
World Health Organization (WHO)

http://www.who.int/aboutwho/

WHO is the directing and co-ordinating authority on international health. It has the lead responsibility within the UN for the development of norms and standards related to health, for global advocacy for health within development debates and for providing guidance to member states in relation to health systems development. In support of its main goals—building healthy populations and communities and combating ill health—WHO focuses on:

- reducing excess mortality, morbidity and disability, especially in poor and marginalized communities;
- promoting healthy lifestyles and reducing risk factors to human health that arise from environmental, economic, social and behavioural causes;
- developing health systems that equitably improve health outcomes, respond to people's legitimate demands and are financially fair; and
- framing an enabling policy, creating an institutional environment for the health sector and promoting an effective health dimension to social, economic, environmental and development policy.

WHO performs a wide range of advisory, technical and policy-setting functions. It leads international disease surveillance in relation to communicable and non-communicable diseases, provides policy guidance based on evidence and knowledge with respect to the effectiveness of interventions to improve health, stimulates and co-ordinates biomedical and health systems research and supports governments in promoting higher standards of teaching and training, in improving environmental and occupational health conditions and in preparing for and responding to health aspects of emergencies. WHO develops, establishes and promotes international standards concerning foods (through, for example, the Codex Alimentarius Commission and in partnership with FAO) and biological, pharmaceutical and similar substances. Safe water to drink, cleaner air to breathe and antibiotics that can be guaranteed to work are all areas where WHO sets the world standard. It also stimulates the development of medicines, vaccines and other technologies that hold the key to controlling important or neglected diseases or disorders and proposes conventions, agreements, regulations and recommendations in respect of major public health issues.



In conducting its work, WHO works closely with other organizations in the United Nations System and maintains close working relationships with bilateral agencies and intergovernmental and non-governmental organizations (NGOs). More than 180 NGOs are in official relations with the Organization. In addition, nearly 1,200 leading health-related institutions around the world are officially designated as WHO Collaborating Centres.

WHO challenges society's leaders—whether in government, international bodies, business or civil society—to act in the interests of health and, in particular, to address the health needs of the world's 1.5 billion deeply impoverished people who have barely shared in the health gains of the past half-century. WHO urges society's leaders to recognize that funds spent on health are not wasted expenditures, but essential investments in human and economic progress. WHO is likewise advocating that society's leaders act on the broader determinants of health by educating girls, improving housing conditions and addressing environment and sustainable development challenges.

WHO has major programmes in place at headquarters and in its six regional offices, which are actively involved through their normative and technical work in addressing challenges in relation to a wide range of issues on prevention and control of priority communicable and non-communicable diseases, health systems, research, health technologies and pharmaceuticals, family and child health, health and poverty reduction, trade, environmental health and sustainable development (including water and sanitation, indoor and outdoor air pollution, radiation, health impacts of climate change, vector control, chemical safety and occupational health), nutrition and food safety and many others.

Health and Development
http://www.who.int/aboutwho/en/integrating/integrating.htm
Health and Environment
http://www.who.int/m/topicgroups/environment/en/index.html

Food and Agriculture Organization (FAO)

http://www.fao.org

FAO was founded in 1945 with a mandate to raise levels of nutrition and standards of living, to improve agricultural productivity and to better the condition of rural populations. Today, FAO is one of the largest specialized agencies in the United Nations System and the lead agency for agriculture, forestry, fisheries and rural development.

Inadequate dietary intake that persists over time poses a serious threat to health, prevents normal growth and development in children, reduces mental capacity and lowers the productivity of able-bodied adults, thereby contributing significantly to the conditions that prevent people from moving out of poverty. FAO works in the following areas: the incorporation of nutrition objectives and considerations into policies and plans; national food insecurity and vulnerability information and mapping systems; social safety net policies that ensure the minimum nutritional requirements of vulnerable and disadvantaged groups are met; direct action to improve household food security and nutrition; and maximizing the nutritional benefits of food supplies through proper handling (for hygiene and safety), preservation and preparation within households and communities, and in the informal commercial sector (street foods).

FAO promotes food safety standards adopted by the Codex Alimentarius Commission and plant health standards developed under the aegis of the IPPC. FAO co-operates with WHO in the Joint FAO/WHO Food Standards Programme and the Codex Alimentarius Commission, and with the International Plant Genetic Resources Institute and the Consultative Group on International Agricultural Research in the area of genetic resources for food and agriculture. Considering that undernourishment is often also the result of disease, partnerships with WHO and UNICEF are crucial.

International Atomic Energy Agency (IAEA)

http://www.iaea.org/worldatom/

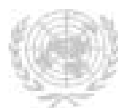
The IAEA serves as the global focal point for nuclear co-operation. It assists its member states in promoting safety in applications of nuclear energy, as well as the protection of human health and the environment against ionizing radiation. In addition, IAEA's Division of Human Health develops, disseminates and evaluates nuclear and related radiation technologies for application in public health programmes. It focuses on nuclear medicine, applied radiation biology and radiotherapy, dosimetry and medical radiation physics and nutrition and health-related environmental studies.

International Fund for Agricultural Development (IFAD)

http://www.ifad.org/operations/regional/pf/index.htm

IFAD works towards enabling the rural poor to overcome their poverty—as perceived by the poor themselves—by fostering social development, gender equity, income generation, improved nutritional status, environmental sustainability and good governance.

HIV/AIDS is emerging as a key cross-sectoral issue for IFAD-supported projects in East and Southern Africa because of the magnitude of the epidemic and the disproportionate impact of HIV/AIDS on the agricultural sector. IFAD addresses HIV/AIDS among its target groups with information and education on HIV prevention and AIDS mitigation; poverty alleviation and livelihood security programmes adapted to the conditions created by HIV/AIDS;



food security and nutrition-related innovations and adaptations to existing practices; socio-economic safety nets, particularly for orphans; and integrated HIV/AIDS workplace programmes.

International Labour Organization (ILO)

http://www.ilo.org/

ILO seeks the promotion of social justice and internationally recognized human and labour rights. It formulates international labour standards in the form of Conventions and Recommendations setting minimum standards of basic labour rights: freedom of association, the right to organize, collective bargaining, abolition of forced labour, equality of opportunity and treatment, and others.

ILO's InFocus Programme on Safety and Health at Work and the Environment (http://www.ilo.org/public/english/protection/safework) aims to create world-wide awareness of the dimensions and consequences of work-related accidents, injuries and diseases; to place the health and safety of all workers on the international agenda; and to stimulate and support practical action at all levels. It focuses on hazardous occupations in sectors where the risks to life and safety are manifestly high, such as agriculture, mining and construction, workers in the informal sector, and those occupationally exposed to abuse and exploitation, such as women, children and migrants.

UNAIDS

http://www.unaids.org/

As the leading advocate for world-wide action against HIV/AIDS, the global mission of UNAIDS is to lead, strengthen and support an expanded response to the epidemic that will:

- prevent the spread of HIV,
- provide care and support for those infected and affected by the disease,
- reduce the vulnerability of individuals and communities to HIV/AIDS and
- alleviate the socioeconomic and human impact of the epidemic.

UNAIDS is a joint programme of UNICEF, UNDP, UNFPA, UNESCO, WHO, UNDCP and the World Bank; its goal is to catalyse, strengthen and orchestrate the unique expertise, resources, and networks of influence that each of these organizations offers. Working together through UNAIDS, the co-sponsors expand their outreach through strategic alliances with other United Nations agencies, national governments, corporations, media, religious organizations, community-based groups, regional and country networks of people living with HIV/AIDS and other NGOs. UNAIDS has an annual budget of US$60 million and a staff of 129 professionals.

United Nations Development Programme (UNDP)

http://www.undp.org/hiv/

UNDP is the UN's global development network, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. It is on the ground in 166 countries, working with them on their own solutions to global and national development challenges.

One of the organization's six focus areas is HIV/AIDS. As a trusted development partner, UNDP advocates for placing HIV/AIDS at the centre of national planning and budgets; helps build national capacity to manage initiatives that include people and institutions not usually involved with public heath; and promotes decentralized responses that support community-level action. Because HIV/AIDS is a world-wide problem, UNDP supports these national efforts by offering knowledge, resources and best practices from around the world.

UNDP is a co-sponsor of UNAIDS, an innovative joint venture that brings together seven UN System organizations to ensure a co-ordinated and intensive response to HIV/AIDS.

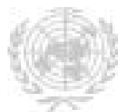
United Nations Environment Programme (UNEP)

http://www.unep.org/

Up to 30 per cent of the global burden of disease is due to environmental factors and is largely preventable though better environmental and ecosystem management. UNEP's activities in capacity building, assessment and technical and policy advice emphasize the links between human and environmental health.

Particular attention is accorded to the assessment and reduction of risks posed by toxic chemicals and hazardous wastes (www.chem.unep.ch) through providing the secretariats for and substantively supporting countries' efforts to implement the Stockholm Convention on Persistent Organic Pollutants (www.chem.unep.ch/pops), the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (jointly with FAO) (www.pic.int) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (www.basel.int).

UNEP is a co-founder of the International Programme on Chemical Safety, together with WHO and ILO, and contributes to the development of internationally agreed risk assessments on chemicals. UNEP also promotes the imple-



mentation of conventions and agreements with implications for health, such as the Montreal Protocol on ozone depletion, agreements to reduce trans-boundary air pollution (such as the ASEAN Agreement on Transboundary Haze Pollution) and the Cartagena Protocol on Biosafety; in addition, UNEP provides the secretariat and technical support to the Intergovernmental Panel on Climate Change.

UNEP, together with WHO, also addresses the links between poverty, ill health and the environment through an ecosystem approach that aims to identify the web of ecologically based factors that influence human health. UNEP also works with UNICEF and WHO in the field of children's environmental health.

United Nations Population Fund (UNFPA)

http://www.unfpa.org/about/aboutmain.htm

The UNFPA supports developing countries to improve access to and the quality of reproductive health care, particularly family planning, safe motherhood and prevention of sexually transmitted infections, including HIV/AIDS. Priorities include protecting young people, responding to emergencies, and ensuring an adequate supply of condoms and other essentials. The Fund also promotes women's rights, and supports data collection and analysis to help countries achieve sustainable development. Its focus areas include:

- Reproductive Health and Family Planning
- HIV/AIDS Prevention
- Young People
- Safe Motherhood
- Reproductive Health Supplies, including condoms
- Response to Emergencies
- Women's Empowerment, advocating for women's rights and an end to gender-based violence
- Population and Development

UNICEF

http://www.unicef.org/programme/health/mainmenu.html

UNICEF supports policies, legislation and programmes focusing on the health and survival of children and their mothers. Over 10 million children die each year and 55 per cent of childhood deaths in developing countries can be attributed to just five main causes, sometimes occurring together: pneumonia, diarrhoea, measles, malaria and malnutrition. Reaching every child with cost-effective interventions targeting these major killers is the ultimate goal of UNICEF's assistance to countries.

Mothers also face threats to their lives. Each year close to 515,000 women—more than one woman a minute—die from complications related to pregnancy and childbirth. In addition, these complications contribute to more than 3 million infant deaths within their first week of life and another 3 million stillbirths. Expanding access to skilled attendance at birth and emergency obstetric care could save millions from preventable death.

UNICEF's health work is concentrated around four health themes:

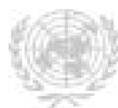
- *Immunization*—support for routine immunization, polio eradication, measles elimination, maternal and neonatal tetanus elimination and vitamin A supplementation.
- *Child & Maternal Survival*—prevention and treatment of common childhood illness, including malaria, through integrated management of childhood illness and activities to expand safe motherhood.
- *Emergencies*—addressing the malnutrition and disease that accompany emergencies.
- *HIV/AIDS*—prevention among young people; prevention of mother-to-child transmission; care and support for orphans and children in families affected by HIV/AIDS; care and support for people living with HIV/AIDS.

UNICEF promotes children's and women's health, nutrition and education as stipulated in the Convention of the Rights of the Child, the Convention on the Elimination of All Forms of Discrimination Against Women and the International Conference on Population Development. UNICEF bases its programming process within this human rights framework, which was adopted by the Executive Board in 1998. Programmatically, UNICEF's health action contributes to four of the five 2002–2005 MTSP priorities: girls' education, immunization plus, integrated early childhood development and HIV/AIDS.

UNIFEM

http://www.unifem.org/

UNIFEM promotes gender equality and women's social, economic and political empowerment. It works to ensure the participation of women in all levels of development planning and practice and acts as a catalyst within the UN System, supporting efforts that link the needs and concerns of women to all critical issues on national, regional and global agendas. UNIFEM's work focuses on strengthening women's economic capacity as entrepreneurs and producers, increasing women's participation in the decision-making processes that shape their lives, and promoting women's human rights. Two programme areas with particular relevance for health are violence against women and HIV/AIDS.



World Bank

http://www1.worldbank.org/hnp/

Good health, nutrition, reproductive policies and effective health services are critical links in the chain of events that allow countries to break out of the vicious circle of poverty, high fertility, poor health and low economic growth, replacing this with a virtuous circle of greater productivity, low fertility, better health and rising incomes.

Since its first health, nutrition and population (HNP) loan in 1970, the Bank's activities in this sector have grown rapidly to the point where it is now the single largest external source of HNP financing in low- and middle-income countries. Today, there are 154 active and 94 completed Bank HNP projects, for a total cumulative value of US$13.5 billion in 1996 prices.

The objectives of the Bank's work in the HNP sector are to:

- improve the health, nutrition and population outcomes of the poor, and to protect the population from the impoverishing effects of illness, malnutrition and high fertility;
- enhance the performance of health care systems by promoting equitable, responsive, high-quality and affordable health, nutrition and population services; and
- secure sustainable health care financing by mobilizing adequate levels of resources, establishing broad-based risk pooling mechanisms and maintaining effective control over public and private expenditure.

The Bank will continue to build relations with partners based on its comparative advantage and clear agreement on mutual roles, as it is now doing with WHO and UNAIDS. It will build on the past success in river blindness control and support other international health, nutrition and population initiatives. Future partnership priorities include collaboration with African governments in a major effort to control the malaria epidemic, work with WHO and others to combat the pandemic of tuberculosis and to promote integrated management of childhood illness and work with many partners to launch the Global Forum on Health Research. Through such actions, the Bank expects to enhance its contribution to the global effort to improve human development during the first decade of the twenty-first century.

Regional Commissions

The Regional Commissions support a wide range of WEHAB activities: technical co-operation, policy advice, research, analysis, data/statistics, exchange of best practices, meetings, regional integration and co-ordination, publications, networking and training. See links below for specific areas of intervention.

Economic Commission for Africa (ECA)

Fostering Sustainable Development
http://www.uneca.org/programmes_home.htm

Economic Commission for Europe (ECE)

Environment and Human Settlements
http://www.unece.org/env/welcome.html
Transport, Environment, and Health
http://www.unece.org/poja/

Economic Commission for Latin America and the Caribbean (ECLAC)

Environment and Human Settlements
http://www.eclac.org/dmaah/

Economic and Social Commission for Asia and the Pacific (ESCAP)

Population, Rural and Urban Development
http://www.unescap.org/pop/division.htm

Economic and Social Commission for Western Asia (ESCWA)

Energy
http://www.escwa.org.lb/divisions/environment/eis.html
Natural Resources
http://www.escwa.org.lb/divisions/environment/nrs.html