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Contribution of Ecosystems Services to Human Health and Wellbeing

Executive Summary

Over the past 25 years, the public health sector has been striving to embrace a more global, systemic and ecologically sound approach. Natural resource management today encompasses environmental, as well as social and economic considerations. Both fields have seen a shift towards a more integrated approach to management—the “healthy ecosystems” approach. By framing human health and wellbeing in the context of an ecosystems approach, it is recognized that healthy people and healthy environments are inextricably linked. Some 60% of the world’s vital ecosystem services are already degraded or under pressure, and the health impacts of this situation are already being felt, particularly among the world’s poor and vulnerable populations. In most African countries, there is still inadequate assessment and monitoring of the dynamics of human activities and their impact on local ecosystems. The UN has released an update on the progress and some of the challenges to achieving the Millennium Development Goals (MDGs). Among these, the degradation of ecosystem services constitutes an important barrier to achieving the Goals. Governments are being urged to recognise the interlinkages between environment and health, from the perspective of the vital services that ecosystems provide to human health and wellbeing, and to promote integrated policies that value these services. Solutions require political commitment, concerted action and shared responsibility between different government sectors and the civil society. Countries should take steps to mitigate the underlying causes of ecosystem damage, while simultaneously improving human health. Inter-sectoral collaboration among government departments and the civil society, capacity-building, dissemination of knowledge and good practices, and integrated action for health and the environment are also critical.

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Acronyms and Abbreviations

CSIR Council for Scientific and Industrial Research

IDRC International Development Research Centre

MA Millennium Ecosystem Assessment Report

MDGs Millennium Development Goals

UNECA United Nations Economic Commission for Africa

1. Background

1. Over the past quarter-century scientists have made significant progress in quantifying the impacts of environmental hazards to human health. The root causes of environmental health risks frequently lie outside of the health sector, yet this sector has to deal with the resultant spiralling costs of health care and treatment, the society with death and disease, and national economies with lost human productivity. The experiences of developed and developing countries in establishing integrated policies and strategies for health, environment and development at national and regional levels have shown that the challenge of bringing the environment and health to the fore of the development agenda can be met, and development investments can be planned more rationally.
2. Over the last 25 years, the public health sector has strived to evolve towards a more global, systemic and ecologically conscious direction. Natural resource management has also progressed to encompass environmental and social factors as well as economic parameters. Both fields have seen a move towards a more integrated approach to management. These two currents of thought have given rise to the term “healthy ecosystems”.
3. The Millennium Ecosystem Assessment (MA) report (WHO, 2005) describes an ecosystem as “a dynamic complex of plant, animal, and micro-organism communities and the nonliving environment interacting as a functional unit. Humans are an integral part of ecosystems.” By framing human health and wellbeing in the context of an ecosystems approach, it is recognized that healthy people and healthy environments are inextricably linked—the MA report describes ecosystems as “the life support system of planet earth.”
4. It is incumbent upon human beings to recognise the services that ecosystems provide in people’s quest for survival, fulfilment and future security, and the effect individuals’ actions have on the various forms of life and ecosystems’ sustainability. In doing so, humans must accept the responsibility for the rational management of nature’s resources.
5. The MA report identifies ecosystems services as the benefits people obtain from (a) provisioning services such as food and water; (b) regulating services such as regulation of floods, drought, land degradation, and disease; (c) supporting services such as soil formation and nutrient cycling; and (d) cultural services such as recreational, spiritual, religious and other non-material benefits. A good illustration of ecosystems services to human health would be traditional medicine; ecosystem service failure can manifest itself in increased incidence and severity of diseases.
6. There is increasing awareness of the need to address the underlying causes of disease outbreaks and the inability of communities in Africa to cope through traditional avenues. Throughout the developing world, traditional medicines are the primary source of health care for up to 80% of populations (WHO, 2002). The

source of traditional medicines is reliant to a large extent on the integrity of ecosystems from both a provisioning and cultural perspective; this includes not only the species harvested for medicinal use, but also for the importance placed on landscapes and places of socio-cultural, religious and symbolic value (Cunningham et al., 2008, in press). Pressures on ecosystems from overharvesting, habitat loss, land degradation, and climate change not only reduce the resource base of medicinal species, but can also change the distribution and patterns of disease vectors.

7. Access to primary health care remains a major challenge in developing countries, and particularly in Africa. It has been reported that emigration has caused the number of trained health care professionals in sub-Saharan Africa to fall below the thresholds required to achieve the health-related MDGs.
8. Human wellbeing has multiple constituents, including health, material wellbeing, freedom of choice and action, social support systems, and security. Wellbeing is the opposite of poverty, a state of “pronounced deprivation in wellbeing.” The constituents of wellbeing, as experienced and perceived by people, are situation-dependent, reflecting local geography, culture, and ecological circumstances.
9. The MA report indicates that modern-day advances in health and wellbeing are being placed at risk by the degradation of ecosystem services. Some 60% of the world’s vital ecosystem services are already degraded or under pressure. The health impacts from such pressure is already being felt, particularly by the world’s poorest and most vulnerable populations, as unsafe water and sanitation; dwindling solid fuel supply, air pollution, climate change, heavy-metal poisoning, and growing disease burdens.

2. Issues and challenges

10. The scientific evidence of the benefits of environmental health interventions has in the past not been effectively integrated into development decisions. In most African countries, there is still inadequate assessment and monitoring of the dynamics of human activities and their impact on local ecosystems, in great part due to inadequate technical capacity for assessing such impacts. This situation does not favour the development of locally appropriate strategies to adapt, mitigate damage and implement corrective measures.
11. The Millennium Declaration set 2015 as the target date for achieving the MDGs. The UN has released an update on progress and the challenges to achieving these goals. While there has been some encouraging progress, there remain serious challenges that will require more concerted and sustained action. The degradation of ecosystem services represents an important barrier to achieving the MDGs. The unsustainable use of ecosystems in many parts of Africa is likely to cause serious and irreversible ecological change, depriving local populations of the foundations

for their health and wellbeing. Some of these challenges relate to the political, legislative and institutional barriers to addressing environment and health in a coherent and unified manner, especially policies that impact on ecosystem services to human health

12. Increasingly, the health sector is recognizing the multiple ways in which a changing economic, social, political, and institutional landscape impacts on health status and health services. The drivers for this change include the globalization of economies, the mandates of international treaties, and technology. In this dynamic landscape, focusing solely on technical improvements in health systems is no longer an option—the health sector must be repositioned to cope with a changing world.

3. Proposed actions

13. Governments should recognize the intrinsic linkages between environment and health from the perspective of the vital services that ecosystems provide to human health and wellbeing, and put in place integrated policies that acknowledge and protect these services.
14. There are no quick-fix solutions to reversing the degradation of ecosystems and their services; solutions require long-term political commitment, concerted action and co-responsibility from different government sectors and the civil society. As recommended in the MA report, countries should take steps to deploy mitigation strategies that reduce the underlying causes of ecosystem change, while simultaneously improving human health. They should implement adaptation strategies to reduce the effects of ecosystem disruption on health, addressing direct, mediated and long-term health impacts.
15. A prerequisite would be the setting up of cross-sectoral policy dialogues that will result in coherent national strategic plans with supporting resources. The following strategies of the MA Health Synthesis Report provide a basis for framing policy dialogue and action by governments:
 - a) Improvement of inter-sectoral collaboration among different tiers of government, government departments and the civil society.
 - b) Capacity-building initiatives for assessing health and environment linkages, using the knowledge gained to create more effective national policy responses to environmental threats.
 - c) Dissemination of knowledge and good practices on health and environment gains achieved from inter-sectoral policy-making.
 - d) Integrated action for health and environment, such as impact assessments of major development projects, policies and programmes, and indicators for health and sustainable development.

4. References

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