



Alleviating Poverty by improving Environmental Health

People living in developing countries are ten times more likely to be exposed to the health risks from environmental hazards than people living in wealthy nations.

1/5 of all health risks in developing countries are linked to the environment.

Conversely, health crises such as the HIV/AIDS pandemic in Sub-Saharan Africa make people increasingly dependent on natural resources, which are an ultimate source of income to replace lost earnings caused by ill health. In Africa, this is resulting in increased extraction of wildlife for food, wood for fuel and coffins, and medicinal plants to treat aids-related ailments.

In addition to the human suffering brought about by disease, there are serious economic consequences: in

“**Environmental hazards cause ill-health and death, especially in developing countries.**”

sub-Saharan Africa, HIV/AIDS affects 28 million adults and children, kills 2.3 million annually, cripples human capacity in every sector (including natural resources), and decreases economic growth significantly. Improving the quality of the environment by conserving water, forests, oceans, and air is frequently more cost-effective than curative measures in the health sector, and it improves health, decreases suffering, and strengthens economies.

Young boy fetching fresh water from a pipe in the courtyard of a nursery school. Zanzibar, Tanzania.

MDGs

In light of the global effort to achieve the Millennium Development Goals, it is crucial to identify that environmental sustainability (MDG 7) will be essential for achieving MDG 1-6. Only then will long term substantial revenues be generated to support economical recovery and security, secure food supply (MDG 1) and decreases health risks (MDG 4-6) for the world's poor.



This sheet will give a few insights¹ into environmental-health linkages as well as an indicative list of suggestions, based on best practices and lessons learned in ways of addressing environmental challenges in order to reduce health risks.

It is meant to be a tool for promoting dialogue between WWF and other stakeholders/decision-makers in the process of sustainable development in Africa.

Environmental linkages

WATER

In developing countries, an estimated 90 per cent of wastewater is discharged untreated into rivers, streams or coastal water. In sub-Saharan Africa, diarrhoeal disease and malaria – linked to water contamination and inadequate sanitation account for **16 per cent of deaths**.

Throughout the world, water-related diseases affect 250 million people and cause five million deaths every year.³

The most vulnerable to water-borne diseases are poor women and children who are disproportionately exposed to polluted water through domestic tasks such as washing clothes and collecting water.

Preserving water sources, abating water pollution, providing access to safe drinking water and promoting hygiene and sanitation is essential to improving health and alleviating poverty.

MARINE and COASTS

Clean and protected coastal areas help create healthy and abundant sources of fish - the primary source of protein for 950 million people worldwide - while reef fisheries provide basic nutrition and income to millions of people with net benefits estimated at 4.6 billion Euro.

CONSERVING MARINE AND COASTAL ECOSYSTEMS

Fisheries along the West African coast provide a key source of food and income generating €220m, and in Senegal alone employing more than 600,000 men and women. Access to these resource-rich waters by European fleets (provided through current EU fishing agreements) is, however, placing unsustainable pressures on local fish stocks and in turn reducing nutrition and jeopardizing local livelihoods. WWF is working with European and African government to reassess fishing agreement towards negotiating more equitable, sustainable, and transparent fishing agreements².



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FORESTS

Forests provide especially the world's poorest and marginalized communities a vital source of food, energy, medicine, shelter, and income.

Biomass (from wood and dung) provides energy for cooking and heating to over 2 billion people in developing countries, while seventy-five per cent of the world's population depend directly on traditional medicines derived from forest and natural resources.

Managing forests and protecting watersheds secures food and potable water.

AIR

Indoor air pollution caused by the smoke of biomass fuels affects one billion people and prematurely kills some two million women and children in developing countries every year. Infants and young children are more vulnerable to indoor air pollution due to their immature respiratory systems. It is estimated that 1.4 million young children die every year from respiratory infections attributable to indoor air pollution⁴.

Outdoor air pollution is also becoming a significant problem in urban areas of some developing countries. Apart from immediate human health impacts, increased air pollution levels are contributing to long-term climate change.

AGROCHEMICALS

Pesticide poisoning is a significant health threat especially to poor farmers. Exposure to pesticides is estimated to cause 11 million annual cases of acute illness or chronic health in Africa alone⁵.

Illiterate farmers who use dangerous agrochemicals without proper clothing and training are at high risk of being exposed to cancer-causing chemicals⁶.



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African women carrying bundles of firewood home on their heads Okavango Delta Botswana



Pesticide inventory, Nanguila, Mali.

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SUGGESTIONS AND LESSONS LEARNED

► Rural communities in Botswana 's Ngamiland use revenues from communities' based natural resources management (**CBNRM**) to **mitigate the effects of HIV/AIDS** through donating to an AIDS trust fund, sponsoring orphans to commercial education and paying for funeral services

► WWF SARPO is developing a joint regional initiative with an hiv/aids organization that will enable CBNRM to incorporate HIV. In this initiative, the **CBNRM structures** will be used to **reach out to remote communities** that do not have conventional health facilities. The initiative will also see revenues from natural resources being reinvested in HIV/AIDS programmes in the same communities.

► Since 1993, communities living along Tanzania's Great Ruaha River have faced water scarcity due to upstream irrigated water use. WWF is helping to make the

Ruaha flow all year round by bringing together local irrigators, pastoralists, the Water Board, government officials and key ministries. **Together, they are preparing a plan to manage the Ruaha and its resources**⁷.

The joint strategy will release more water for the downstream users (including "Tail-tenders"), benefiting the people, wildlife and ecosystems that depend on the river. Already, increased awareness of the problem has led to farmers adopting more efficient water use methods, particularly in terms of irrigation, and communities are now removing thirsty eucalyptus trees and replacing them with local varieties.



Health scouts show how to use impregnated mosquito nets, Salapoumbé.

► WWF is also supporting the development and enforcement of by-laws to ensure long-term access for all the Great Ruaha river - so that dry river beds and parched waterways will become a thing of the past.

► Through its ecoregion-based conservation programme (Miombo) WWF is working with mining companies in the Copperbelt region of Zambia to **reduce the environmental impact of mine pollution**. The Copperbelt is the watershed of Zambia's main river basin, the Kafue, and water pollution from mining activities is a big threat to people's health and the environment.

WWF is currently establishing **dialogue** with mining companies with the aim of inviting the companies to voluntarily reduce pollution from their activities by strengthening their environmental management activities. So far, at least five mining companies have

expressed interest in working with WWF in its activities in the Copperbelt.

► The Health and Environmental Initiative (HELI), implemented by the World Health Organization (WHO) and United Nations Environmental Programme (UNEP), is a **global effort to reduce environmental threats to human health**.

The initiative includes maintaining and updating a web-based clearing house on environment and health linkages that will include principle data sources, policy-relevant briefs, and review documents.



Interacting with farmers. Mugunga village, Democratic Republic of Congo (former Zaire).

Recommendations

Efforts to **protect environmental health** should be integrated with the aim to improve the environment, livelihoods, and economic growth, this entails:

- 1 preventing environmental hazards, health risks, and disease;
- 2 supporting good governance structures to safeguard human and environmental health;
- 3 incorporating water quality issues, hygiene behavior, and sanitation in health education and prevention;
- 4 improving water, energy, and health services and infrastructure;
- 5 changing behavior and adapting to local environments;
- 6 providing incentives to implement pollution control measures (including in the private sector), and
- 7 improving monitoring, evaluation, and enforcement.

References

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2. 'Fair fishing deals', WWF 2005
3. www.panda.org/about_wwf/what_we_do/freshwater/our_solutions
4. Cairncross et al., 2003.
5. Goldman and Tran, 2002. Cited in DFID et al., 2002.
6. DFID et al., 2002.
7. 'Livelihoods running dry on Tanzania's Great Ruaha River', WWF, 2005.

Sources

'Health, Environment and The Burden of Disease; A Guidance Note', Cairncross, S. Dominic O'Neill, A. McCoy, and D. Sethi, 2003. February 2003, Department for International Development (DFID).

'Linking Poverty Reduction and Environmental Management: Policy Challenges and Opportunities', July 2002, Department for International Development (DFID), Directorate General for Development (EC), United Nations Development Programme (UNDP), and The World Bank.

'The Burden of Disease among the Global Poor: Current Sanitation, Future Trends and Implications for Strategy 2000', Gwatkin, D. and M. Guillot, 1999. Global Forum on Health Research.

'Health and Environment Environmental Strategy Papers No. 1', 2001, Lvovsky, K., Environment Department, World Bank.



A. Bongbuembla, a traditional doctor, shows Dr TF Mbenkum, project executant for a WWF ethnobotanical survey of Mt Kilum, how one of the region's plants can be utilized. Mount Kilum, Cameroon.

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Population, Health and

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www.panda.org/about_wwf/what_we_do/policy/pop_health_environment

DFID:

www.dfid.gov.uk

UNEP:

www.unep.org

WHO:

www.who.int/heli

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption



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