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Improving Human Health: Environmental and Social Considerations of Sectoral Reform

Effective environmental policies, institutions and local governance are critical in supporting human health. Deficiencies in these factors all too often lead to an impoverished and poorly managed natural resource base in rural areas, resulting in poverty, hunger and consequent out-migration to rapidly growing urban centers, where overburdened and largely dysfunctional local environments provide ideal vectors for the spread of diseases.

The environment performs two basic functions – those of ‘source’ and ‘sink’.¹ As a source, it supports livelihoods by providing sustaining resources. As a sink, it provides pollutant absorption and cleansing, thus supporting human health. Consequently, disruptive change to the environment adversely affects human health and wellbeing.

The advent of urbanized societies, with ‘mega’ cities such as Cairo, Mexico City, Mumbai and Sao Paulo, together with rapid and largely unregulated industrial growth, poses severe challenges for maintaining clean air, safe drinking water and adequate waste disposal. Recent studies show that premature death and illness due to major environmental risks account for one fifth of the total burden of disease in the developing world, equivalent to a factor of 10:1 as compared with developed countries.² Worldwide, three million people in developing countries die each year from vector-borne diseases related to water and poor sanitation. In addition, air pollution is responsible for approximately 5 percent of the global burden of disease, with nearly two million children under the age of five dying each year from respiratory infections.³

Climatic patterns are only likely to exacerbate current health conditions in the foreseeable future. The UN Intergovernmental Panel on Climate Change (IPCC) has estimated that the warming trends of the Earth’s surface, caused by the build-up of greenhouse gas concentrations (GHC) from industrialization and energy-led development, will lead to further decreases in clean water supplies for the one billion people who already experience shortages; an increase in the incidence of vector-borne diseases (malaria and dengue), water-borne diseases (cholera), and malnutrition across tropical and sub-tropical regions; and decreases in agricultural productivity in parts of Africa, already hard hit by hunger and famine.⁴ It is thus increasingly urgent that environmental considerations and their impact on human health be placed at the core of national policy agenda.

¹ Roger-Mark De Souza, et al. September 2003. “Critical Links: Population, Health and the Environment”; *Population Bulletin*, Volume 58, No. 3. Population Reference Bureau, Washington, DC.

² The World Bank, 2004. *Making Sustainable Commitments – An Environmental Strategy for the World Bank*

³ U.S. Center for Disease Control, Office of Global Health, National Center for Environmental Health. “Access to Safe Water, Sanitation and Hygiene”. <http://www.cdc.gov/nceh/globalhealth/priorities/access.htm>

⁴ The World Bank. “Climate Change”. <http://web.worldbank.org/WBSITE/EXTERNAL>

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Barriers to implementing improved environmental policies

Significant, entrenched policy and institutional barriers exist against the adoption of improved environmental practices. Environmental health issues are multi-sectoral and therefore tend to “fall through the cracks” of the agenda of local government and other institutions, many of whom may lack clear directives and priorities for addressing complex environmental issues. Also, environmental policy innovation requires time and effort to yield results, as well as to monitor and measure health outcomes and their linkages in terms of sustainable economic growth. Sound, empirical evidence is often required to move the policy agenda towards aligning human health, economic and environmental concerns.

Environmentally favorable innovations often are driven by economic, not human health, considerations. For example, improved air quality was achieved in many parts of India and China in the late 1980s through better designed domestic stoves, largely motivated by energy efficiency considerations. Other readily available innovations, such as those that dramatically reduce diesel fuel emissions, may be delayed because of reasons of short term commercial gain. Environmental improvements may also not be cost-effective or affordable to the poor. A recent study on the use of biomass fuels by families in Sub-Saharan Africa estimates that, over the next 25 years, some ten million women and children will die from exposure to smoke. Switching to cleaner, more efficient fuels would require a doubling of the cooking fuel budget, which few households are able to afford.⁵

An improved paradigm must be created to foster beneficial environmental policies that also embrace a ‘business case’ for sustainable economic development. The needs and interests of the poor must be taken into account in the shaping of environmental and economic policies, since it is the poor who are most vulnerable to their outcomes. Also, trade-offs between economic and environmental management decisions must be made in a participatory, transparent and accountable manner. Environmental management cannot be treated as a separate development agenda, but rather requires integration with poverty reduction policies and improved health programs.

Linking environmental, economic and health policy agenda

Major types of initiatives that improve human health include the following:

- *Improving governance* – in order to integrate poverty/environmental issues with national development agenda, empower civil society, and strengthen decentralization for improved environmental management at the municipal and community level;
- *Enhancing the assets of the poor* – so as to strengthen the resource rights of marginalized groups and the poor, whose health is most directly affected by environmental degradation;
- *Improving the quality of health care delivery and disease control through policy and institutional reform* – in order to afford better regulation and to further facilitate involvement by the private sector;
- *Monitoring and constantly improving environmental performance of both the public and private sectors* – in order to reduce pollutant loads and the risk of disease vectors.

⁵ Susan P. William, The Washington Post, April 20, 2005. “In Africa, Lifting the Pall of Smoke from Cooking.”

Improved local governance is required to address environmental issues by allocating scarce resources among competing development needs. As more countries devolve authority to states, provinces and municipalities, local governments often must deal with issues of scarce potable water supplies, and the setting of tariff and fee structures for water, energy and other basic services for marginalized and poor populations. Both environmental and community based health organizations (CBHOs) need to be part of the decision-making process in order to safeguard the provision of services critical to health. Development agencies can assist in providing technical assistance and enhanced management capabilities in order to help ensure a constructive dialog with government and other parties.

Land tenure issues need to be addressed. In urban areas, they have serious implications for the provision of water and sanitation services. Legal frameworks that recognize the property rights of especially 'squatters' enable the tapping of a vast pool of wealth by borrowing against properties that may have been improved over several years. A new class of homeowners is created than can begin to pay for water, sanitation and other services that reduce the incidence of disease vectors. In rural areas, improved local governance and land tenure favorably improve natural resources management, resulting in higher living and health standards, and consequently reduced out-migration.

Pro-growth strategies must address environmental health concerns. Donor agencies and governments have a responsibility to foster appropriate and balanced policies that mainstream these concerns from the start, rather than as an afterthought. In developing policies for different economic sectors, impacts on the environment and public health need to be considered. Donors can assist by developing and promulgating decision-making tools, such as the WHO/UN health impact assessment that measures the economic and health trade-offs resulting from different interventions.⁶

The private sector is a key partner through its ability to deliver services efficiently for appropriate levels of risk and reward. The private sector also brings financial investment to develop new technologies that can improve environmental health. However, it must be brought in as an equal partner, through a legal and institutional framework that removes unnecessary regulatory and administrative burdens, while providing for adequate financial incentives to ensure participation and investment in new partnerships.

'Clean' technologies need to be supported and developed. Donor agency initiatives – such as those of the Global Environment Fund (GEF), the Clean Development Mechanism (CDM), the Prototype Carbon Fund, and the World Bank's Fuel for Thought – are examples of attempts to implement policy reforms encouraging the use of energy efficient technologies. Similarly, voluntary environmental management systems (EMS) represent a holistic, programmatic approach that combines economic development objectives with human and environmental wellbeing. At the same time, however, sound regulatory enforcement programs are needed to control the emission of persistent organic pollutants (POPs) and other substances known to be harmful to health. Voluntary mechanisms alone are seldom sufficient.

⁶ World Health Organization. The Health an Environment Linkages Initiative (HELI). <http://www.who.int/heli/publications/brochure>.

Environmental policies and related activities that help to support and improve human health include the following:

- Implement land tenure/ownership reform that strengthens environmental stewardship and local governance
- Encourage partnerships between environmental and community health organizations
- Build collaboration efforts among multiple stakeholders (government, citizens, industry) to foster local accountability
- Develop efficient pricing and supply of essential municipal services (potable water supply, sanitation, solid waste disposal)
- Encourage public/private partnerships through enabling institutional and legal frameworks
- Encourage voluntary EMS to reduce pollution at originating sources
- Develop effective incentives and penalties for compliance with realistic environmental goals and regulations
- Conduct integrated coastal and watershed management to safeguard environmental and community systems.

Sound environmental policy supports both a healthy economy and population. Poor or no environmental policy can lead to ecological disaster, with grave ramifications for human health and long-term economic growth.