

Environment and Health Decision-Making in Developing Countries

***A global review conducted by the WHO–UNEP
Health and Environment Linkages Initiative (HELI)***



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We are here to consider how we might effectively address environment and health issues, not as we have in the past, as separate and un-related topics, but within a new paradigm, which is holistic and also linked to the basic change forces driving our societies – particularly in developing world/emerging economy countries. This presentation will focus on the process of environment and health decision-making in developing countries – and findings from a new global review on the issue conducted by WHO and UNEP under the auspices of the joint WHO/UNEP Health and Environment Linkages Initiative.

WHAT IS HEALTH?

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."



UNEP/TopFoto.co.uk

Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19–22 June 1946; signed on 22 July 1946 by the representatives of 61 States; and entered into force on 7 April 1948. The definition has not been amended since 1948.



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2. As I am starting from the point of view of a Health official, I want to speak first about "what is health" in the definition of the term by WHO at its founding in 1948. This was: "health is not only the absence of disease, but a complete state of well-being." Based on this definition – already more than half a century old – we can justifiably say anything impacting on health; social, economic, or environmental; should be of concern to the health sector.

CATEGORIES OF ILL HEALTH

- Communicable diseases
- Maternal, perinatal conditions & nutritional deficiencies
- Noncommunicable diseases, e.g.:
 - Cardiovascular diseases & malignant neoplasms
 - Injuries
 - Neuropsychiatric disorders
 - Congenital abnormalities.



WHO/Photo Archives

("Deaths by Cause", *World Health Report*)



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3. The conventional categories through which we traditionally approach health issues commonly refer to conditions of disease or disability. They relate little to the ways in which natural ecosystems ensure our well-being and health – "as a complete state of physical, mental and social well-being." Conversely, they tell us little about the ways in which environmental degradation, contamination, and ecosystem disruption can be a root cause of much disease.

THE HEALTH AND ENVIRONMENT NEXUS

Environmental hazards/ecosystem degradation are a root cause of a significant health burden:

- 25% of the burden of disease globally
- up to 35% of disease burden in very poor regions such as sub-Saharan Africa.

(Smith KR et al. *Epidemiology*, 1999)



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4. There is now a growing body of scientific evidence documenting the degree to which environment is a factor in death, disease and disability overall. Environmental hazards and ecosystem degradation are estimated to be the cause of approximately 25% of the burden of disease globally, and nearly 35% of the disease burden in very poor regions, such as sub-Saharan Africa. These estimates reflect ongoing burden of disease assessment work by experts within the World Health Organization, in collaboration with experts worldwide.

THE LINKS

- Unsafe water kills 1.7 million → mostly from diarrhoeal diseases.
- Indoor smoke from solid fuels kills 1.6 million → deforestation a related issue.
- Malaria kills 1.2 million → deforestation, water/irrigation, waste, housing.



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5. There are many ways in which environmental hazards impact directly on health:

- Unsafe water leads to the death of an estimated 1.7 million people annually – mostly as a result of diarrhoeal diseases.
- Indoor smoke from solid fuels kills 1.6 million – of course the use of solid fuels also is a factor in deforestation.
- One of the world's biggest single disease killers today remains malaria. Over 1.2 million people die annually, most of them children. Irrigation and water systems; waste disposal, housing, and deforestation all are factors that may impact malaria transmission, as well as transmission of other common vector-borne diseases.

THE LINKS

- **Air pollution** — kills 800 000
- **Poisonings**, including agro-chemicals — kills 224 000 in developing countries
- **Climate change** — over 150 000 deaths, including those arising from more extreme weather and natural disasters.



UNEP/Permdhai Vesri; Topham Picturepoint



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6. To cite just a few more examples: urban air pollution, including emissions from unsustainable transport/industry kills 800 000 globally. In developing countries, an estimated 224 000 people die from unintentional poisonings, often due to exposure or ingestion of agro-chemicals or other toxic substances, which also pollute ecosystems. Finally, climate change, including extreme weather events, is estimated to cause over 150 000 deaths annually.

A COMPLEX INTERFACE

Shifts from subsistence to export-oriented agriculture may impact soil and water conservation practices & biodiversity, as well as health (e.g. exposures to agro-chemicals, nutrition, and food security).



2000 UNEP/Topham; UNEP/Wenren Yang



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7. The links between environment and health are not always linear cause and effect relationships, but part of a complex interface of broader change factors. For instance, new patterns of trade and export-oriented agriculture may lead to changes in soil and water conservation practices, which in turn may impact water quality and biodiversity. At the same time, there may be health impacts from exposures to agro-chemicals, changed nutrition patterns, and increased or decreased food security.

REVIEW OF ENVIRONMENT AND HEALTH DECISION-MAKING

*"Considering the risks, why aren't these issues
higher on policy agendas?"*

- Health and Environment Linkages Initiative (HELI)



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8. The cumulative evidence of these powerful links leads us naturally to one question: Considering the risks, why aren't such issues already higher on national policy agendas in developing countries? It was largely to address that question, that WHO/UNEP sponsored a review of environment and health decision making in developing countries, as a first stage in a new global Health and Environment Linkages Initiative (HELI). This review included qualitative, in-depth interviews with over 50 "key informants" globally — environment and health experts working in government, NGOs, and within international agencies. In addition, a broad literature review was conducted to examine how policy issues were being addressed in key areas of risk, including: indoor and outdoor air pollution; water, sanitation and health; toxic substances, and climate change.

PARAMETERS OF THE REVIEW

- **Driving forces** in environment and health decision-making
- **Barriers** to better environment and health decisions and policy
- **Needs** of policy-makers in countries
- **Opportunities** for international agencies and partner countries to take action together.



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9. Parameters of the review included four main questions: What are the "driving forces" in environment and health decision-making? What are the major "barriers" to better decisions and policy; and what are the "needs" of environment and health experts and policymakers at the country level, as well as "opportunities" for international agencies, NGOs, and country partners to take action together.

KEY FINDINGS

- ❖ Basic knowledge exists about environment and health problems.
- ❖ However, drivers of policy are economic, political, institutional, and social.
- ❖ Science, as such, must maximize its limited 'window of opportunity' for introducing evidence that makes an impact.



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10. The findings substantiate a perception that many of us already may hold informally: Basic knowledge exists about health and environment problems, even in countries with poor data and monitoring capacity. The drivers of policy – and barriers to more effective policy – are more often economic, political, institutional, and social – rather than lack of knowledge, as such. There is, indeed, a limited "window of opportunity" to introduce scientific evidence that can make an impact in policy debates. But the opportunity exists, nonetheless.

ECONOMIC DRIVERS

- **Market liberalization and globalization** → new pressures on traditional subsistence economies and natural ecosystems in developing countries.
- **Social access to/allocation of natural resources** → insecure land tenure, poverty.
- **Patterns of resource consumption** → nationally, regionally and globally.



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11. Three major economic drivers were cited by informants, and in the literature, as critical to policy processes impacting environment and health. Those include:
- Market liberalization and trade globalization: They create new pressures on traditional subsistence economies & natural ecosystems in developing countries
 - Social access to/allocation of natural resources – which are factors in insecure land tenure and poverty.
 - Finally, unsustainable patterns of consumption/production lead to the exploitation of natural resources for short-term gain, rather than for the long-term, sustainable development of society at large. Globally, consumption patterns in wealthy countries drive pressures for resource exploitation in poor countries.

POLITICAL AND SOCIAL DRIVERS

- **Patterns of political power and governance** → short-term interests rather than long-term perspective
- **Ethnic and political rivalries** → instability & violence
- **Population pressures** → growth & migration to urban areas
- **Grassroots awareness** → illness may be seen fatalistically. Basic livelihood needs are a first priority, and links between health, environment and economic well-being are not well perceived.



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12. Along with market forces, patterns of political power and political alliances, and related issues of "good" governance, may hinder effective action on linked environment and health issues – particularly when policy action seems to threaten the short-term interests of a powerful group or interest. As UN Secretary General Kofi Annan observed, speaking before the Commission on Sustainable Development in April, 2004: "We need to overcome the entrenched interests and economic short-sightedness that hinder progress."
- Shifting political rivalries, political and ethnic instability, and in the most extreme case, violence, certainly can undermine long-term perspectives. A policy or plan that takes months or years to develop can be overturned overnight with a sudden change of government.
 - In addition, we continue to be faced with population pressures – most of the world's population growth over the next two decades will occur in developing countries, particularly around urban areas. Since the poor also rely more directly on natural resources for livelihoods, population pressures may lead to increased pressure on natural resource bases.
 - Finally, key informants raised the issues of "awareness". The concrete link between common diseases and pollution or degradation, often are not readily apparent. And even if they are, meeting basic livelihood needs may take priority over improvements in environment, and health. As one key informant to the study, working to introduce low cost, community-based water quality improvements in sub-Saharan Africa noted, "*if a poor mother is faced with spending her remaining money on better quality water from an improved supply, that may marginally improve health, or on another meal a day for her child, she is likely to choose the meal.*"

INSTITUTIONAL DRIVERS

- **International policy agendas** have relevance at critical moments; but national agendas as set by ministries, are a daily driving force.
- **Decentralization** is a major trend operationally.
- **But.... resources still are controlled nationally;** national-level policies have a major impact on determinants of health, e.g. watershed management, national transport infrastructure.



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13. There also are institutional and bureaucratic drivers – and these may warrant our greatest attention in a forum like this one.

- Let us first of all understand the background in which our health and environment institutions function. Although international policy agendas have relevance at critical moments, decision-makers must respond firstly to the national agenda as set by their own national leaders.
- Secondly, while decentralization is a major trend – we have not yet harnessed fully that trend to environment and health objectives. We still have much to do in order to improve technical capacity at local level to monitor pollution and health, and take action.
- We have not fully integrated the principle of "subsidiarity" into our thinking – giving the local level full control over those resources/decisions that they can best manage, while leaving the regional or national level with control over those resources/decisions that they can and must manage, such as regional watersheds.

ENVIRONMENT AND HEALTH SECTORS

- Health ministries focused on **curative programs and service delivery**
- Environment ministries focused on policy assessment and regulatory action, but have **insufficient influence on upstream policy decisions.**
- Ministries naturally protect their own **sectoral interests**, programs, budgets and jobs.
- Blurred boundaries of jurisdiction can also leave environment and health to **fall through the cracks.**



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14. Most relevant to our review, of course, are the institutional driving forces and barriers, as they relate to environment and health sectors.

- There is a constant pressure on health systems to provide for patient care services that address the most immediate health problems, and that consumes most of the sector's resources. So it is difficult to look more deeply at the root causes of ill health, including environmental factors.
- Environment Ministries may be more interested in tackling those broad development agendas – but they may have insufficient influence on those "upstream" decisions about strategic development. Typically, economic, production and finance sectors set those big agendas.

FROM BARRIER TO OPPORTUNITY

- Environment and Health possess **complementary skills**.
- Environment sector has expertise in environmental pollution, monitoring and regulation.
- Health sector can relate environmental hazards to human health and well-being.
- Only by acting together can environment and health issues move higher on national agendas.



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15. Despite these very powerful financial, political and institutional barriers, or perhaps because of these barriers, we need to seize the **opportunity** to act together. We need to ensure that environment and health sectors – both at the global level and the national level – coordinate their agendas and their activities. These two sectors possess complementary skills and knowledge vital both to ecosystem preservation and to ensuring long term human health. As informant in this review noted: *"If environment and health sectors do **not** work together, the assessment of impacts on sheep will be better than the assessment of impacts on humans."* – WHO technical official, Europe.

NEEDS IDENTIFIED BY INFORMANTS

- Improved **impact assessment** tools/processes
- Link impact assessment and **economic valuation/analysis**
- **Interaction and communication** between scientists, policymakers and civil society.



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16. In facilitating joint action, four key needs were identified in this review, by our key informants:

- The first was the need for improved **impact assessment** tools and processes.
- The second was the need to better incorporate **economic valuation** of environment and health into the impact assessment process.
- Finally, the need to create incentives and an enabling environment for intersectoral action was highlighted. This includes support for, and investment in, those mechanisms or processes that can facilitate **interaction** and **communication** between scientists, policymakers and civil society.

IMPROVED IMPACT ASSESSMENT

- Impact assessment → a **'bridge'** between science & policy-making.
- Introduce evidence about environment and health into policy debates **upstream** of strategic development decisions that are root causes of big disease burden.
- Support more **transparent** impact assessment process.
- Create an **enabling environment** for intersectoral assessment that gets environment and health at the table with key productive sectors.



17. Why is impact assessment so important? **Impact assessment, in its most generic sense, is a "bridge" that links scientific knowledge and policy decisions. In fact, whenever decision-makers consider a major development strategy or policy, they will be crossing this bridge somehow.** They will consider the impacts of their policy on the economy, society, and the political arena – and they may or may not consider health and environment.

- But **formal** impact assessments usually are conducted only at the project level – after strategic development decisions have already been made. More formalized "impact assessment" is needed at the strategic level of decision-making.

- Impact assessment also needs to be more transparent – including all of the stakeholders who will be affected by the decision in the process, from the outset. That is likely to increase consensus and reduce conflict over the policy selected.

- Finally, given the barriers to cooperation between sectors, we also must think about how to use available **political, financial, and institutional incentives** to promote intersectoral forms of impact assessment. This is a long process. However, a partnership, as we have in HELI, where international support is given to a country-managed assessment process, is one example. (In its use and application of Health Impact Assessment, Thailand on its own also has been a pioneer in innovative impact assessment approaches.)

ECONOMIC ANALYSIS

- **Economic valuation** of environment and health costs/benefits is vital; it can help get issues onto broader national development/poverty-reduction agendas.
- Economic analysis should, however, be **integrated** with other indicators and measures of impacts, both quantitative and qualitative.



18. The **second key need** identified was for more complete economic valuation of environment and health costs and benefits, within the assessment process.

• In an age where measures of GDP and development growth are common reference points for decision-makers, economic tools are vital to health and environment sectors, and are critical to getting the issues onto broader national development/poverty reduction agendas.

• That is not to say that everything can be valued in money. Loss of life on its own, may also be sufficiently powerful evidence to drive action. And in poorly resourced settings, it may be difficult to quantify many health and environment impacts at all. So we also should rely on qualitative input, local knowledge, and participatory processes, to define the problems and find solutions.

To summarize what I have said so far, I cite a comment from a key informant to the review, from Health Systems Research Institute who observed: "*The political agenda in our country is called the 'Economic Catching up Process.'*"

*"This causes significant bias towards short-term economic interests rather than long-term development goals. The more intense the political competition, the greater the need for politicians to define their specific political agenda as a 'faster catching up process' than that of other parties. **In this situation, the only successful way to promote healthy public policy is to show how the economy can gain from protecting health and environment.**"*

INTERACTIVE PROCESSES

- Knowledge sharing – knowledge management
- Strengthen forums of 'engagement' between scientists, policymakers, and civil society at all levels.



WHO/Photo Archives



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19. Alongside the need for **better assessment and better economic valuation**, the review identified how we may respond to these needs, and make the most of opportunities that do exist for addressing the issues.

- In this context, our key informants told us that we need to talk more, perhaps, about **knowledge sharing**, as compared to **knowledge management**.
- Policymakers will respond best to new knowledge, not when they are the *passive recipients of information*, no matter how well it is organized and presented, but when they become part of the process. "Knowledge sharing" implies an interactive process.
- In line with this, we need to identify and strengthen forums for "**engagement**," between scientists, policy makers and civil society, making interactivity a key element in health and environment strategies.

Such interactivity can range from "**action research**" at grassroots, to the kinds of **intersectoral assessment** exercises we have focused on in HELI. **Professional workshops** also are important forums of exchange and learning, as are virtual communities of practice. At the regional and political-strategic level, **ministerial meetings** between health and environment can set new dynamics in motion. Finally, **global forums** like this one at the World Conservation Forum – where policy makers, scientists and civil society actors all come together – can help stimulate change.

INTERNATIONAL/NATIONAL PARTNERSHIPS

- International agencies (UNEP, WHO) and institutions have **'convening'** power that can provide incentives to intersectoral action and help overcome barriers.
- Direct financial support can also be critical in stimulating interest and cooperation.



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20. Often, intersectoral action is blessed by everybody, but funded and supported by nobody. In the HELI initiative, WHO and UNEP have used their "convening power" as UN institutions, with direct financial support to country partners, to stimulate a process that is country driven and operated. Of course even a little seed money – to directly support activities on the ground – is helpful.

COMMUNICATION

- Present **solutions** alongside the problems.
- Describe **economic and poverty-reduction gains** that can be achieved along with health gains.
- Relate environment and health issues to specific government sectors but within an **intersectoral perspective**.
- Let policy-makers **see** the issues and evidence for themselves.



21. Finally, we need to pay attention to the many demands policymakers have on their time, and tailor our messages accordingly. In that regard, the review made the following points:

- Describe **economic & poverty reduction gains** alongside the human health gains.
- Describe environment and health problems in terms of the **activities** familiar to government; i.e. transport; municipal sewage – but maintain an intersectoral vision.
- Present **solutions, and successful experience elsewhere, alongside the problems**. No policymaker likes to deal with failure. Success, on the other hand, can be contagious.
- And whenever possible, let **policymakers see and touch the evidence of problems and solutions for themselves**. As the key informant working on introduction of low-cost water quality improvements in sub-Saharan Africa noted: "At both community and government levels, people were not convinced by arguments and facts just set out on paper. Government officials and communities needed to see results and some way of implementation, in order to adopt new ideas into policy."

SCIENCE AND POLICY IN DIALOGUE

"We have done a lot of identification of the issues. However, that remains only information – unless it can be turned into policies in the respective ministries. Why hasn't that happened?"

"Passion drives action. Knowledge, raw data, does not have passion unless someone translates this into judgements on comparative advantage, or raises an issue in the context of local socio-political trends. Data has to be translated into something that will move people.

"Some people are moved by money, some by politics. These are passion parameters. You have got to make people feel the issue."

(Director, Sustainable Development and Healthy Environments, WHO/SEARO, New Delhi)



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22. In conclusion, we should forge a strategy whereby ecology and environment are not topics that automatically relate, in the minds of policymakers, to "nature" as such, or to dry scientific statistics, but to *real, everyday* issues that concern people. As noted by a key informant from WHO's Southeast Asia Regional Office, we need to understand the drivers and passions of the policy process, and not be afraid to interact with the process using the sound scientific evidence we have.

That evidence, about ecosystem degradation and environmental pollution – when fully formulated and effectively articulated in terms of human health, wealth and well-being – can and should move policy processes.