Environmental Health

Exporting hazards to developing countries
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The health of people in developing countries is threatened by the importation of hazardous products, wastes and industrial processes from the developed world. Combating this menace is a facet of environmental protection and management of the planet's resources.

The industrialized countries, with less than a sixth of the global population, consume a disproportionately large amount of the world's resources and produce more than three-quarters of its goods, services and industrial waste. They have devised complex rules for controlling the hazards associated with industrial development. Because such controls are costly, require a vigilant bureaucracy and, at least in the short term, slow down economic activity, they are lacking in much of the developing world.

Economic pressure

Economic growth in developing countries is generally associated with positive health outcomes, including reduced child mortality and increased life expectancy. Improvements in health are, however, accompanied by deterioration in the natural environment (1) and other harmful effects of rapid industrialization and structural adjustment (2). For example, occupational health problems are increasing in rapidly developing Asian countries that have imported obsolete industrial technologies from Japan, where they are no longer considered safe. The comparatively lax regulations in developing countries allow the acquisition of such technologies and the importation of hazardous wastes and other dangerous materials.

Many developing countries have heavy debts and are consequently anxious to industrialize rapidly and to accept overseas investment. The World Bank and the International Monetary Fund tend to steer development in the direction of the free market (3). Free-trade agreements have helped to increase the accessibility of the global market for developing countries. Transnational corporations are responsive to regional and cultural differences in their markets, and readily adapt to restrictions on the production and promotion of products (4,5). Industrial safety standards are typically lower in developing countries than elsewhere, leading to widespread environmental health risks and the occasional catastrophe, as seen at Bhopal.

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412
The developing world continues to import vast quantities of hazardous waste. This trade, worth many billions of dollars, involves competitive growth in local processing and disposal and in the export of both the waste and the technology for treating it. Because the proper treatment of hazardous waste is expensive there is a temptation, especially in comparatively small industries, to dump it (6). This problem is exacerbated by the immense scale of illegal international shipments of waste. The exportation of hazardous goods, licit and illicit waste, and whole industries from developed countries has been given a considerable impetus by the stringent environmental regulations adopted in these countries and by the globalization of trade.

The impact of hazardous imports on health in developing countries has been difficult to measure precisely, because the associated risks are distributed unevenly across large populations and may take years to manifest themselves. Nonetheless, they are evidently substantial and, in the case of chemical exposure, are heightened by poor health status, notably associated with malnutrition and parasitic infestation. Women and children appear to be particularly susceptible to the health problems associated with some of these hazards (7), as they are generally to the social disruption caused by rapid industrialization (2,8).

**Double standard**

A systematically updated compendium of restricted pharmaceutical, agricultural, industrial and domestic products now exists (9), but the capacity to restrict dangerous drugs and other products depends on economic development (see figure). Poor countries, especially those undergoing rapid development, are subject to many chemical hazards that are outlawed in the richer exporting countries.

The exportation of hazardous items reflects a double standard in acceptable health risks. Many companies accept some restrictions in their home bases while vigorously cultivating markets for the same products in developing countries. The tobacco industry, facing a gradual decline in smoking in most developed countries, is aggressively marketing cigarettes in the developing world, where smoking rates are increasing by about 3% a year and annual tobacco-related deaths are expected to rise sevenfold by 2025 (10). A similar picture is evident in respect of other hazardous products, including pesticides, asbestos, petrol lead, and infant formulae (11). Ozone-depleting substances such as methyl bromide and chlorofluorocarbons are examples of chemicals for which alternatives are available for most applications. Methyl bromide is still being actively promoted as a fumigant in developing countries, although a schedule for its elimination in industrialized countries was agreed under the Montreal Protocol in 1995. The decision to defer the phasing out of this product in developing countries reflects vigorous lobbying by chemical manufacturers.

Governments and the military in the developing world often promote business interests, including the arms trade, which
Environmental Health

Restriction of hazardous pharmaceuticals in 141 countries

The x-axis figures indicate GNP deciles, the y-axis figures indicate the number of monocomponent drugs known to be hazardous (of which there are 26). Seventy countries fail to restrict any of these drugs, and are indicated by a space along the x-axis. The proportion of "restrictor" countries increases as one moves from low-income to high-income countries.

constitutes a pervasive threat to public health (12). The smuggling of weapons-grade nuclear material into developing countries also presents a serious threat (13).

The benefits of development are substantially offset by the importation of hazardous industries, products and wastes into developing countries. Control is difficult, partly because of free-trade agreements and the ramifications of economic forces. It seems doubtful whether regulations to control the international movement of such items can ever keep pace with technology and entrepreneurial pressure. Indeed, there is a view that trade in hazardous materials is a logical, perhaps inevitable, outcome of disparities in economic development and power. Hazardous exports from the developed countries are excessively profitable, to the extent that their impact on the environment and health in importing countries is excluded from fiscal reckoning. They usually reflect processes that are not ecologically sustainable and cannot continue indefinitely on a planet whose life-support systems are already seriously distorted by human activity (1,14).

The dissemination of up-to-date information on hazards and their control in
Some categories of hazardous exports to developing countries

Agricultural products: antibiotics, fertilizers, pesticides
Domestic and health care products: infant formulae, pharmaceuticals
Fuels and additives: high-sulfur coal, plutonium, tetraethyl lead
Industrial production: asbestos, processing and use, metal smelting, organic chemical manufacture
Industrial waste: dioxins, heavy metals, polychlorinated biphenyls
Ozone-depleting substances: hydrochlorofluorocarbons, methyl bromide
Tobacco products
Weapons: cluster bombs, anti-personnel mines, stun devices

Different countries (9) is undoubtedly of value but there is a lack of agreement as to whether it is desirable, let alone achievable, that countries should adopt uniform restrictions in this field. Powerful economic forces both foster and exploit regional differences in hazard acceptance. Moreover, the extent to which individual governments should legislate to tackle essentially global problems and fund solutions to them is also a matter of dispute.

At one extreme it is held that the hazards have been exaggerated and that there should be an essentially unrestricted global market. At the other, rapid industrialization and the excessive levels of consumption in affluent countries are seen as dire threats to human well-being, and eco-taxation, subsidies for sustainable development, and a return to regional economies are advocated. Meanwhile, proposals are made for compromises accommodating both economic growth and environmental sustainability. The World Trade Organization began tackling these matters in 1996.

Political efforts to resolve the problem of hazardous exports are likely to fail if agreement is not reached on redefining development, which Western economists typically equate with economic growth. As the catastrophic impact of the motor car in many cities suggests, Western patterns of consumption may be unsustainable in the developing world. The damage caused to social structures and health by the importation of hazardous products and wastes pales beside the problems associated with the wholesale introduction of industries and growth-fixated Western economic culture. Against this background the control of hazardous technology can be seen as a facet of the larger challenges of environmental protection and management of the planet’s resources. Hanging in the balance is public health, not only for the poor, among whom the dangers are most pressing, but ultimately for all human beings everywhere.

References


9. United Nations Department for Policy Coordination and Sustainable Development. Consolidated list of products whose consumption and/or sale have been banned, withdrawn, severely restricted or not approved by governments. 5th edition. New York, United Nations, 1994.


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Requirements for sustainable vector control

Sustainability in vector control requires continuous political support and commitment to controlling malaria together with continuous resource support to maintain the programmes. A sustainable vector control programme also needs human resources with the necessary skills and knowledge to determine when and where action is needed and community acceptance of, and participation in, interventions. Appropriate methods and targets must be selected, and the available control tools should be suitable for long-term use. Sustainability implies that, when progress has been made in the control of malaria, the achievements are maintained. There must often be a change in behaviour and attitudes at all levels so that everyone understands, appreciates and is motivated towards carrying out the requirements of the vector control programme.