
Environment, health, and sustainable development: the role of economic instruments and policies

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Recent years have seen considerable progress in integrating environmental concerns into the mainstream of development policy and planning. Economic instruments designed explicitly for environmental purposes may help to achieve cost-effective solutions, and generate public revenues. Macroeconomic and sectoral policies may impact heavily upon the environment, and there is much scope for policy reforms that are justified in both economic and environmental terms. Progress in this area has been much more rapid than in the case of health objectives, even though the rationale for environmental improvement is often ultimately related to human health and well-being. It is proposed that lessons from recent experience in the use of economic instruments and policies to achieve environmental objectives are highly relevant for the health sector, which should seek and encourage support for measures that require consumers and producers of environmentally degrading products to pay for the economic and social costs of the damage resulting from their use.

Policy reform at the macroeconomic or sectoral level may yield cost-effective solutions to some health problems, and may even bring about improvements in health status that involve no net cost at all. The countrywide impact of such policies indicate that health agencies, including WHO, should develop the capacity to understand how economic policies and the adjustment process impact upon human health, not only directly through the effect on incomes, but also indirectly, via changes in the natural environment. Ability to conduct rigorous health impact assessment of economic policy reform, which requires a multidisciplinary effort, is a necessary condition if health ministries are to maximize their effectiveness in influencing overall government economic policy.

Economic instruments for environmental management

Recent developments in the application of environmental economics are relevant to the health sector, especially considering the structural adjustment processes that are under way in many developing countries. Environmental management is now widely regarded as an integral part of the development process. Increasing pressure on limited natural resources and on the ability of the planet to absorb waste material has led to growing concern that environmental degradation threatens the prospects for continued economic development worldwide. At the same time, there is increasing evidence of the significant and pervasive effects on the natural environment of policies at the macroeconomic and sectoral level. The environment therefore cannot be separated from eco-

nomical issues. Recognition of this fact has helped to make environmental issues—and the use of economic instruments for environmental objectives—an important part of development planning and policy. While a great deal remains to be done, progress in this area is much more rapid than in the case of health objectives, even though the rationale for environmental improvement is often ultimately related to human health and well-being.

A distinction may be made between the two routes by which economic policies impact upon human health. The first consists of policies that affect health via changes in the level and distribution of income, and thus the ability of people to purchase adequate food, shelter, nutrition and health services. This is part of mainstream health economics, and is not addressed in the present article. The second route, which is the main focus of this review, is via changes in the natural environment. Two types of economic instrument for environmental management are referred to in this paper: (a) those with explicit environmental objectives, such as pollution taxes; and (b) the environmental consequences of sectoral and macroeconomic policies.

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Explicit instruments

Government intervention in the economy is required where market systems fail to allocate resources in an efficient or equitable manner, the classic example being environmental degradation caused by the discharge of waste material into waterways or the atmosphere. Such intervention may be by use of economic instruments or regulatory instruments. Traditionally, governments have relied almost exclusively upon regulatory methods, e.g., by setting standards for the emission of effluents, and for ambient quality. In recent years, however, growing attention has been paid to the use of economic instruments for environmental management. Compared with the regulatory approach, effluent or emission charges based on the damage caused by the effluents discharged by industry have the potential advantage of ensuring that ambient quality standards are achieved at least cost to society as a whole because it gives each discharger the opportunity to weigh the costs of the damage against the costs of taking remedial abatement measures. Another advantage of charges is of course that they raise revenues, which may or may not be used for pollution control purposes by the government.

In practice, effluent or emission charges reflecting damage costs are rarely used in both industrialized and developing countries. One reason for this is the difficulty of monitoring large numbers of waste dischargers. There is, however, a growing recognition of the potential importance of economic instruments as a means of controlling environmental pollution, and one answer to the monitoring problem is to use other measures, for example, taxes on materials used in industrial processes, which are presumed to be emitted later on in the form of pollutants. Such indirect methods of levying pollution fees (otherwise known as presumptive taxes) are becoming common in the industrialized countries. Examples include taxes on gasoline, pesticides, fertilizers, lubricating oils, or on the sulfur content of coal. While not as efficient as effluent taxes, in that they do not encourage improvement in the quality of the discharge, they clearly do have some incentive effect, and are relatively easy to administer. At the municipal level, a water charge incorporating the expected waste disposal costs is an example of such an indirect instrument. The relative ease of implementing product charges suggests that they should be of particular interest to developing countries, where the institutional capacity to enforce either regulatory or economic instruments at the emission level is typically even less adequate than in the case of the industrialized countries.

Clearly contrary to the "polluter pays" principle, governments, for political reasons, frequently find

subsidization of industrial instruments. While inefficiencies in capital markets and considerations of equity may justify such subsidies, this should be the exception rather than the rule. Explicit subsidization of pollution control equipment may distort investment decisions, e.g., by favouring end-of-pipe treatment rather than (the often cheaper) industrial process changes, and of course they impose a fiscal burden on the government. Subsidies from national to provincial or municipal agencies may, however, be justified, even beyond the transition period, on grounds of equity or where cross-jurisdictional benefits may result from environmental improvements.

A variety of other instruments which make use of economic incentives may also be employed. These include tradeable permits, in which licences to pollute are allocated among various enterprises, which can then sell those rights to other enterprises. In principle, this, in common with the emission tax, can also result in the least costly means of achieving ambient targets. Certainty in the attainment of environmental targets is also achieved, and the initial issuance of permits can yield revenues. This system, little used even in industrialized countries, is probably inappropriate for most developing countries. Use of performance bonds and deposit refund schemes, on the other hand, could be introduced relatively easily.

Economic and sector policy reform and the environment

It is now generally recognized that most environmental problems are less the result of individual large-scale development projects that have gone wrong than the combined consequences of many relatively small-scale activities, such as unsustainable agricultural practices, pollution caused by large numbers of small, inefficient factories, and decisions made by individuals to enter and destroy tropical rainforests (1). Subjecting each such decision to social cost-benefit analysis, or environmental impact assessment or regulation, or indeed to a system of environmental taxes that requires monitoring of individual actions is rarely administratively feasible. This implies the need to search for the underlying causes of such activities, and identify policy interventions (which will often have to be somewhat blunt), aimed at the source rather than the symptom of the problems. Priority should be given to amending government interventions in the market which are economically and environmentally perverse, and introducing interventions (such as pollution taxes) when market forces are inadequate. These actions should be accompanied by efforts to address the underlying causes of natural resource degradation

and to improve understanding of what affects the environment and how.

It follows from the foregoing that the traditional project-by-project approach, while important and deserving of more effort, must be supplemented by the integration of environmental management into economic policy-making at all levels of government. Policies with a wide ranging impact — i.e., those of a sector-wide or macroeconomic nature — are specially relevant. A variety of government policies may have a profound impact — for good or ill — on the environment. Fiscal, exchange rate, energy and agricultural pricing, or land tenure policies might be expected to have major environmental implications, but in practice environmental consequences have traditionally not been considered in the formulation of environmental policy. Special attention should be given to the design of economic incentives to induce environmentally sound behaviour, so not only individual investment projects but also economic policies should be subjected to environmental evaluation.

Understanding the chain of causality leading to environmental degradation is thus required. Proximate causes are relatively easy to identify; much more difficult, but of primary importance, is the analysis of the underlying causes. Typically these will be found in economic incentives, often combined with a complex mix of social and political factors. In practice there are many opportunities for policy reform, in both developing and industrialized countries (2). While environmental degradation often stems from the inherent failure of free market processes, other problems are actually induced by government policies. Thus, while taxation of environmentally damaging activities, through pollution charges or product charges, is a sensible course of action in many cases, in practice quite the reverse often occurs. Policy failure occurs when governments create incentives for environmentally damaging behaviour by intervening through implicit or explicit subsidies, i.e., when those who demand environmental goods are not required to pay for the latter's true social cost. This is particularly common among developing countries, where irrigation and municipal water, electricity, and agricultural chemicals are typically subsidized. Governments also sometimes lower the cost of environmentally damaging activities by providing *de facto* incentives for destroying forests or mangroves.

In the case of public utilities such as water supply and electricity, artificially low prices encourage wasteful use, and generate inadequate revenues for operation and expansion. Decline in service quality is accompanied by greater difficulty in raising prices, resulting in a vicious circle of underfunding and

shortages. The cost to consumers of a service not being available is often more than the cost of expanding the service, even when costs are rising. Underpricing — or subsidization — of resource use is therefore typically unjustified in economic and financial terms. It frequently has perverse income distributional consequences, places a fiscal burden on the government, and moreover is often environmentally unsound as it encourages wasteful use. In such cases, the scope for policy reform with multiple advantages — “win-win” action — is therefore considerable.

Adjustment and the environment

The leverage exerted by sectoral and macro-level economic policies, as well as other institutional, legal and social policies, is of fundamental significance in determining environmentally related behaviour. Economy-wide policy reform, and specifically the adjustment process, should therefore be carefully assessed in light of its environmental consequences. However, due to the large number of physical, social, and economic variables involved, these linkages remain imperfectly understood. In the last few years, efforts have continued to improve understanding of the ways in which economic incentives impinge upon environmentally-related behaviour, with attention increasingly focusing on the impact of macroeconomic and sectoral policies. The adjustment process has come under particularly close scrutiny.

The adjustment process, worldwide, has taken the form of a growing reliance upon market mechanisms and privatization, with a corresponding diminution of government intervention in commodity and financial markets, reductions in government bureaucracies and specific subsidy programmes, and reform of public-sector pricing. Some aspects of the market liberalization process are likely to be environmentally beneficial; the market system, in bringing about closer relationships between prices and the real economic costs of supply can, in general, be expected to yield environmental benefits by encouraging efficient (non-wasteful) resource use. Reform in energy pricing and greater trade openness, which facilitates technological innovation, are good examples.

Indeed, environmental considerations typically provide an additional reason for policy reforms that are justified in their own right. Water-supply and electricity pricing are good examples where pricing reform would in most countries be justified on environmental and economic efficiency grounds. It also has potentially major fiscal implications, and would be a central element of any policy of “green taxation” aimed at shifting the tax burden from productive activities such as labour and enterprise towards

unproductive activities such as depletion of resources and generation of waste. The search for such policy reforms should continue to command high priority both by governments and by international development agencies, particularly as the costs of environmental degradation are borne disproportionately by the poor.

However, the environmental consequences of adjustment may not always be favourable. The very success of the adjustment process in stimulating industrial growth has itself been the cause of environmental problems where pollution control measures have been inadequate. Trade reforms may be of special concern: encouraging exports, if not accompanied by adequate pricing policies in the country concerned, could lead to over-exploitation of under-priced natural resources, such as forests. In such cases, compensatory intervention would be required to remedy deficiencies in economic, legal and institutional policies. Such constraints to the success of economic policy reform are a pervasive problem, and, in addition to shortcomings in pricing policies, they take many forms. One of them refers to the allocation of property rights, upon which the effectiveness of price reform ultimately depends. Whether in relation to the security of land tenure of peasant farmers, or to the right to extract timber by logging companies, uncertainty normally results in environmental degradation. Price reform, if unaccompanied by adequate legal and institutional frameworks, including regulatory capacity, may have perverse results in both economic and environmental terms.

Although data problems remain, and more research is needed, it is already possible to make rough assessments, not simply of the environmental impact of projects, but also of economic policies and adjustment operations. In general, economic techniques exist — and for most countries, so does natural resource information — to improve the way environmental issues are addressed by policies at the sectoral and macroeconomic levels. Where the environmental impact of the adjustment process is potentially adverse, such assessments would form the basis for identifying measures to counteract these effects; where on the other hand they are likely to be positive, complementary measures might be devised to maximize this impact. A conclusion from the foregoing is that, while environmental impact assessments are now conducted routinely for large-scale development projects, it is now even more important to develop institutional capacity to conduct environmental assessment of economic policy reform. The wide range of variables of an economic, geographical, physical, institutional and cultural nature, implies that a multidisciplinary approach is required if this is to be achieved.

While key elements of the adjustment process, which are aimed at improving efficiency in resource allocation and avoidance of waste, appear to be a necessary condition for sustainable development, it is by no means certain that this will be sufficient. Indeed, much controversy remains over whether economic growth itself is sustainable (3). Ultimately everything depends upon technical and sociopolitical capacity to substitute man-made for natural capital sufficient to accommodate economic and population growth. It is safe to say that we do not know if this will be so, but human resource development, stressing health, education, and equality of opportunity, are clearly essential ingredients of any strategy to effect the necessary changes.

Health, environment and development linkages

Health and development

Precisely parallel arguments to those made earlier about environment can also be made about the importance of integrating health issues into national economic planning. The fundamental importance of human health as a determinant as well as an objective of economic development warrants its inclusion in any list of explicit objectives of macroeconomic policy. As in the case of environment, the potential impact of economic policy, particularly at the macro or sectoral level, is considerable. National development strategies — their impact on income distribution, population, and poverty, their biases between and within urban and rural areas, and their outcome in relation to regional disparities and vulnerable groups — have far-reaching consequences for the health situation, and sectoral programmes and projects outside the health sector can have major implications for health.

Under the auspices of WHO's intersectoral action programme for health (4), several studies have been undertaken to illustrate the linkages between health and development activities. Among these were the ones carried out in India (Kerala State), Jamaica, Sri Lanka, Thailand and Costa Rica which demonstrated the nature of the interrelationships between development outside the health sector and health status. These studies examined ways in which national health strategies could have an impact on these interrelationships, making them more explicit and using them to improve the health status of the population. They also examined health status as it has evolved at different levels of per capita income and different stages of development, and provided

general information on the intersectoral processes that underpinned the transition in health from conditions of poverty and underdevelopment to those of affluence.

While cross-country comparisons and long-term time-series analyses show that higher per capita income is indeed associated with better health, considerable concern has been expressed in recent years about the impacts of economic development, and in particular the adjustment process, on both the environment and on social progress in general, especially education and health. There are strong linkages between environmental and social aspects of development: environmental degradation primarily affects the poor, and reduces their ability to increase their incomes. As a cause as well as consequence of environmental degradation, poverty is part of a vicious circle from which it is difficult to escape. Poverty alleviation may therefore be a "win-win" strategy, although there may be cases where increased incomes actually result in greater environmental degradation.

Health status is affected heavily not only directly by economic development, e.g., by policies influencing per capita income and its distribution, but also indirectly, through changes in the natural environment. These effects may be immediate or longer term and may be direct or indirect: for example, air and water pollution, and ozone depletion can be expected to have direct health implications; soil erosion, by reducing agricultural productivity, and therefore incomes, may have an indirect, but possibly profound impact upon health. The developing countries are in a particularly vulnerable position: while still facing traditional public health problems that have been eliminated many years ago in the industrialized countries, they simultaneously face major health problems due to changes in the natural environment as well as the newer problems associated with economic development.

Relevance of developments in environmental policy for the health sector

Ultimately, the rationale for the present worldwide concern for the environment is based upon the perceived threats to human health, particularly if the latter is broadly defined — as by WHO — to refer to a state, not only of physical, but also of mental and social well-being. Nevertheless, compared with health, the environment has attracted greater public attention, greater increases in funding, and greater efforts to integrate it into high-level policy, often without careful assessment of the actual environment–health linkages, and therefore prioritization on health grounds. Indeed, there have been many cases

in which proposed environmental reforms or projects have been in direct conflict with human health objectives: an example is the choice between forest and wildlife conservation and rural poverty alleviation measures in a number of African countries.

Recent developments in environmental economics and policy are relevant for health policy and planning in a number of ways. First, environmental experience suggests that as a long term policy, "getting prices right", so that they reflect real resource costs, is in general a requirement for sustainable development. Methods of achieving this are exemplified by various approaches to remedy market failure, in which pollution taxes — in practice, often tending to be levied on inputs rather than discharges — combine economic incentives to reduce waste discharges with administrative feasibility. Water supply is another example, where wasteful use is reduced by pricing according to real costs of supply; and where safeguards can easily be built in to ensure improved access by the poor and the achievement of health benefits. Similarly, reform of energy pricing, resulting in improved air quality, may not simply be a cost-effective, but actually a cost-free, means of reducing respiratory disease.

Obvious parallels relating directly to human health are the consumption of various goods which have "external" effects, such as motor vehicles, tobacco, alcohol and firearms, where *taxes based upon the economic and social costs* of damage resulting from their use could yield both health improvements and substantial revenues. Indeed, the kinds of arguments made in favour of "green taxation" can readily be extended to the achievement of public health objectives. Such taxes, justified in efficiency terms, may substitute for distorting taxes on income and enterprise, and thus, if desired, be fiscally neutral. However, while price reform might ultimately be a necessary condition for sustainable development, it may not be effective in the short term if economic distortions or other non-efficient conditions prevail elsewhere. Subsidies may be required as long as inequitable income distribution precludes effective implementation of price reforms. Gradualism in introducing reforms may therefore often be necessary.

Greater reliance upon economic instruments must therefore often be accompanied by various *institutional and social reforms*. These will range from enhanced administrative efficiency, in which public sector decision-making is more likely to respond to price signals, to equality of educational, social and economic opportunity for women and other disadvantaged groups. Improved education is critical; the efficiency of the price mechanism depends heavily upon the assumption that consumers

are well informed, and can make sound judgements about the costs and benefits to them of goods and services for which they pay. While a generic issue, this has particular relevance for the efficacy of economic instruments in the health area, since epidemiological relationships are often but imperfectly understood even by the experts. Problems are particularly severe with regard to the ability of the poor and disadvantaged to make such decisions; thus, price reform must be accompanied by consumer education if it is to be successful. Population policy provides perhaps the best example; the introduction of direct or indirect economic incentives to achieve the interrelated economic, health, and environmental benefits stemming from fertility reduction must clearly be accompanied by parallel educational and other social programmes.

Improved awareness may also be required at higher levels. Environmentalists propose *reform of national income accounts* to improve the way in which natural resource depletion and expenditures on environmental protection are handled. Even the proposal for such reform has helped to elevate the status of environmental concern; actual reform would demonstrate to the most powerful government agencies — ministries of planning and finance — the macro-level consequences of environmental degradation. Due to the difficulties of valuing many environmental impacts, a parallel set of physical indicators ("satellite accounts") may be developed, rather than full integration of environment into national income accounts. A similar case can be made in respect of health. Even if it is not possible to derive adequate monetary measures of changes in health status, at least systematic linkages between health and economic indicators should be developed in national accounting systems.

Since health status is a determinant of development, and its improvement an ultimate objective, it follows that there are likely to be, as in the case of environment, many opportunities for *interventions which satisfy both economic and social objectives*. The leverage exerted by countrywide policies on all aspects of development can be expected to have major implications for human health, but in ways that are intuitively far from obvious. For example, while the adjustment process is frequently criticized by health officials because it often involves cutting health ministry budgets, determination of the net impact upon health is much more complex. To the extent that adjustment is effective in meeting its primary target, i.e., bringing about macroeconomic stability and growth, it will contribute to a positive health outcome. Individual elements of the process can also be predicted to be beneficial, such as price reforms for municipal water supply and energy,

referred to above.

On the other hand, greater reliance upon market mechanisms may have adverse income distributional consequences, with parallel impacts upon health. Experience in the environmental area suggests that rarely would the adverse by-products of the adjustment process be a reason for abolishing it; but efforts must be made to anticipate those consequences and build in *compensatory or complementary measures*, as necessary, to protect vulnerable groups. Environmental problems, their linkages with health, and their solutions tend to be location-specific and heavily dependent upon the prevailing culture and physical environment as well as upon economic policies. Generalizations about the impact of specific economic policy reforms are therefore difficult to make. What may be a beneficial impact of policy reform in one country setting may be adverse in another. Ideally, the linkages and feedbacks between economic policy, environment and health require *general equilibrium analysis*, although as with environment, the current need is to create the building blocks necessary for this to be done, by a series of partial equilibrium and multidisciplinary case studies.

In fact, one of the key lessons from work in the environmental area is that a *multidisciplinary approach* is inescapable. As noted in a recent joint WHO and World Bank review (5), there is much less need for theoretical work — at least in economics — than for the application of standard theory to real world situations. These situations require economists to extend their normal horizons, over both space and time; understanding of the effects upon human health of changes in economic policies, through their impact upon the natural environment, and the feedback to economic growth require many disciplines, epidemiology and ecology being convenient catch-all terms for many of them. Moreover, while policies at higher levels of decision-making are crucial, it is clear — as environmental experience indicates all too well — that policy reform at this level may not meet its objectives if local circumstances are not properly understood and taken into account. This involves understanding of the interaction between the chain of physical and behavioural effects which might stem from changes at the macro level. The building blocks needed to be completed in order for macro-level policies to be successful therefore also call for sociological or anthropological skills to be used in the decision-making process.

The range of technical options that might be employed to address environmental and health objectives are often well known, but practice generally lags well behind theory. This gives rise to the question of why technically and economically efficient solutions are not in fact adopted. Clearly the *inci-*

dence of the costs and benefits of socially desirable activities is a key determinant of their political feasibility. This problem is compounded by difficulties of unambiguously defining the linkages between economic policies and the environment. The root cause of environmental problems may lie in policies or events that are at first sight far removed from the environmental problem itself. Externalities abound; some find environmentally degrading activities very profitable, with those suffering most from such activities being, almost by definition, the relatively poor and disadvantaged, or others (including future generations) who have little say in the development process. In combination with outright bans or other legal constraints on certain commodities, the use of economic instruments reflecting the social and economic costs of using tobacco, firearms, alcohol, drugs, and motor vehicles offers clear possibilities for "win-win" solutions for society as a whole. This, however, may be frustrated by the opposition of powerful vested interests who can finance the fabrication of compelling epidemiological or sociological "evidence". Stimulation of public awareness to overcome the political power of such special interests is a long-term process, but one which merits priority in both developing and industrialized countries.

The foregoing suggests that *health impact assessment* should become an increasing preoccupation of health agencies and ministries. This should take a variety of forms, which are themselves closely related. The first, and most straightforward, is to build health concerns systematically into environmental impact assessment of individual projects. The second is to improve the capacity to understand the direct impact of economic policies on health via changes in the level and distribution of income. The third, which has been the main focus of this paper, is to develop the ability to anticipate the impact of economic policies on health via their effects on the natural environment.

Summary and conclusions

The use of economic analysis and instruments is becoming an increasingly important aspect of environmental policy in many countries. It has been shown that environmental and economic objectives can frequently be assisted by the use of economic instruments, adjusted, as necessary, to reflect institutional constraints and considerations of social equity. The adjustment process, characterized by greater reliance upon market forces, is also in general likely to be beneficial for the environment, although remaining institutional and economic inefficiencies

may require compensatory interventions to protect vulnerable groups or eco-systems.

Ultimately the rationale for concern about environmental degradation rests heavily on the threat it poses to human health. It follows that much of the effort to improve the environment should be welcomed by health agencies, who should also support opportunities for socially cost-effective solutions — many of which involve explicit use of economic instruments — to addressing health problems, even though they fall within the responsibility of other parts of government. The advantages of pricing policies based upon the economic costs of environmental pollution, or of supplying water or energy, are equally applicable to meeting specific health problems arising from the use of alcohol, tobacco, firearms and motor vehicles. Experience in developing explicit environmental management instruments, including the choice between economic incentives and regulatory approaches, also has much to offer the health sector.

To the extent that improved policies utilize economic instruments, there are clear implications for financing the health sector. As frequently argued in the case of alcohol or tobacco taxes, while user charges or pollution taxes generate revenues, they may also, by reducing environmental damage, actually reduce the need for expenditures required as a result of environmental degradation. Reforms aimed at the source of the problem may frequently be cost-effective; indeed, they are often economically and financially justified in their own right. Introduction of such "win-win" policy reforms merits high priority in developing countries.

The traditional approach to environmental health has tended to concentrate on investment projects (e.g., water supply, sanitation and pollution control) or policy reforms directly aimed at the specific manifestation of the problem (effluent taxes, food handling or occupational health regulations). While of critical importance, these activities tend not to address the root causes of such problems, which may often be due to macroeconomic policies or those applied to a wide range of sectors which may at first sight have nothing to do with health. Owing to the considerable leverage exerted by such policies, it is proposed that health agencies should take an increasingly proactive stance towards economic policymaking, in which case serious utilization of economic analysis by health agencies would be required.

Consistent with the principle that prevention is better than cure, increased effort should be devoted to understand better the direct relationships between economic policies and health, using standard techniques of economic analysis. Health ministries should also develop the capacity to understand better

how human health is affected by specific economic and social policies via their impact on the natural environment. Research efforts should be aimed at establishing the proximate and underlying economic problems and causes of priority health problems, on the basis of which the macroeconomic and sectoral policy steps and investments required to address them can be determined. The ability to conduct health impact assessments of economic and sectoral policies would enable health agencies to better articulate their concerns to ministries of finance and planning, to counter the claims of powerful industrial interest groups, and therefore be a more effective voice in the determination of overall government policy.

WHO should also develop such capacities, which would enable it to undertake a major promotional role in this area. In fact, this proposal is consistent with the recommendations made in recent years by a series of WHO reports and studies. As noted in the report of the WHO Commission on Health and Environment (6), progress in this area depends upon recognition of the importance of specialists in a variety of disciplines, including engineers, ecologists, economists, financial analysts, and behavioural and other scientists, to complement the skills of the health practitioner and biomedical scientist. It is therefore clear that a major break with traditional staffing patterns, and the introduction of associated institutional changes, will be required if WHO is to take the lead in promoting and implementing its own recommendations.

Résumé

Environnement, santé et développement durable: le rôle des instruments et politiques économiques

Depuis quelques années, les politiques et plans de développement sont de plus en plus influencés par le souci de préserver l'environnement. Les instruments économiques conçus expressément en fonction de l'environnement peuvent aider à réaliser des solutions d'un bon rapport coût/efficacité et à générer des recettes publiques. Les politiques macro-économiques et sectorielles peuvent avoir d'importants effets sur l'environnement, et une réforme des politiques basée à la fois sur des arguments économiques et environnementaux est tout à fait indiquée. Les progrès dans ce domaine sont beaucoup plus rapides que dans le cas des objectifs sanitaires, encore que la raison d'être

des améliorations de l'environnement soit souvent, en dernière analyse, la santé et le bien-être de l'homme. On estime que les leçons tirées de l'utilisation récente d'instruments et politiques économiques en vue d'atteindre des objectifs environnementaux sont du plus haut intérêt pour le secteur de la santé, qui devrait chercher à faire appuyer des mesures imposant aux consommateurs et aux fabricants de produits nocifs pour l'environnement le paiement du coût économique et social de l'utilisation de ces produits.

Dans la mesure où les politiques améliorées font appel à des instruments économiques, elles ont des incidences manifestes sur le financement du secteur de la santé. Comme on l'a fréquemment soutenu dans le cas des taxes sur l'alcool ou le tabac, si les dépenses incombant aux usagers ou aux pollueurs sont une source de recettes, elles peuvent aussi, en réduisant la dégradation de l'environnement, rendre moins nécessaires les dépenses qui en découlent. Les réformes axées sur la source du problème peuvent souvent être d'un bon rapport coût-efficacité; d'ailleurs elles sont fréquemment justifiées d'un double point de vue économique et financier. Il conviendrait que les pays en développement accordent un rang de priorité élevé à l'adoption de telles réformes permettant de gagner sur les deux tableaux.

L'approche traditionnelle de l'hygiène de l'environnement met l'accent sur les projets d'investissement (par exemple, approvisionnement en eau, assainissement et lutte contre la pollution) ou sur des réformes des politiques expressément dirigées contre les manifestations du problème (taxes sur les effluents, réglementation de la manipulation des aliments, ou législation de la médecine du travail). Bien que d'une importance considérable, ces initiatives tendent à négliger la cause initiale de ces problèmes qui peuvent souvent résulter de politiques macro-économiques ou de politiques appliquées à des secteurs très divers n'ayant à première vue aucun rapport avec la santé. En raison des vastes répercussions de ces politiques, il est proposé que les organismes sanitaires prennent de plus en plus en compte les exigences des politiques économiques, ce qui les obligera à recourir sérieusement à l'analyse économique.

Conformément au principe selon lequel il vaut mieux prévenir que guérir, les ministères de la santé et l'Organisation mondiale de la Santé devraient chercher à mieux mettre en évidence les relations directes entre les politiques économiques et la santé en s'appuyant sur des techniques courantes d'analyse économique. Il faut

drait en outre qu'ils soient mieux à même de déterminer comment les politiques économiques et sociales influent sur la santé humaine par leur impact sur l'environnement naturel. Des recherches pluridisciplinaires devraient permettre d'établir les causes économiques immédiates et initiales des problèmes de santé prioritaires et de définir sur cette base les orientations et les investissements macro-économiques et sectoriels nécessaires pour les résoudre. S'ils étaient capables d'évaluer l'impact sanitaire des politiques économiques et sectorielles, les organismes sanitaires pourraient mieux défendre leurs intérêts auprès des ministères des finances et de la planification en contrant les allégations des puissants groupes d'intérêts industriels et, par conséquent, jouer un rôle plus efficace dans la détermination de la politique générale de l'Etat.

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