

Poverty and the Environment: Dimensions of Sustainable Development Policy

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Abstract

This paper discusses the interplay between poverty and environmental degradation. The main questions addressed are: How should the environmental aspects of poverty be addressed through policy measures? Should existing measures be modified or are wholly new approaches required?

The paper takes the view that since people are instruments, beneficiaries as well as victims of development, their active involvement in the process is the key to any sustainable efforts; and that without continuous improvement of the welfare of the people, environmental programmes will not succeed. This is because the poor tend to be the hardest hit by environmental degradation. At the same time, they also cause much of the damage due to short-term requirements, lack of resources and ignorance.

Introduction

Maintaining a sustainable balance between the human requirements and uses of natural resources, and the regenerative capacities of a country is a major problem. The problem arises partly due to social and environmental exploitation of the powerless by the powerful, and partly to lack of empowerment of the masses through economic and political decentralization to regenerate local communities. These issues bring to the fore the need to address developmental and environmental concerns simultaneously.

The paper discusses the interplay of poverty and environmental degradation. The main questions addressed are: What is the relationship between poverty and environmental degradation? How should the environmental aspects of poverty be addressed through policy measures?

The paper takes the view that since people are instruments, beneficiaries as well as victims of development, their active involvement in the process is the key to any sustainable effort; and that without continuous improvement of the welfare of the people, environmental programmes will not succeed. This is because the poor tend to be the hardest hit by environmental degradation. At the same time, they also cause much of the damage due to short-term requirements, lack of resources and ignorance (Serageldin, 1993; Mink, 1993).

Analysis of environmental issues requires an understanding of the relationships and interactions between humans and their physical environment; and the social and economic processes which give rise to particular environmental problem in view of the fact that populations create their own impact on the environment. Thus, environmental problems are caused by the interplay of social, economic and political factors as part of the human process of organizing production, consumption and social reproduction (Lowe and Bowlby, 1992).

Poverty is at the core of many of the processes which produce detrimental environmental conditions such as desertification, soil erosion, and destruction of

habitats. For many people, poverty means their survival depends on taking actions in the present which makes future survival more difficult. In this regard, many poor people are caught in situations which reduce the productive potential of the very environment on which they depend for survival. In short, the poor lack the ability to act in a manner that would maintain or improve the environment because of the lack of time, equipment and money necessary for investment in efficient methods of production. In addition, they lack the political influence necessary to induce others to help them achieve the levels of investment necessary (Bowlby and Mannion, 1992).

In view of the above, the poor are forced to trade off long-term sustainability for short term survival. The resulting damage to the environment creates further poverty and inability to improve and sustain the environment and hence a vicious circle operates. In this sense, environmental damage is simultaneously a result, a symptom and a cause of underdevelopment (Bowlby and Mannion, 1992).

General distribution of wealth and power also impact on environmental problems. In terms of wealth and power, issues or questions related to who decides what is an environmental problem, and how to balance competing interests in the policy arena to deal with environmental problems arise. Often, there is disagreement as to whether something is an environmental problem and for whom. It is important to note that the economic and political framework for problem identification, is key to the understanding of why certain environmental problems are recognized and addressed. Different groups, affected by the same environmental issue, will often argue for different policy measures.

Historical, Definitional and Conceptual Issues

Soussan (1992) sees sustainable development in terms of the environmental consequences of resource exploitation and the relationship between the environment, poverty and socio-economic change; human needs and the capacity of the environment to cope with the consequence of meeting the needs; and

coping with the impact of economic growth on environmental processes. The concept emerged in the 1980s as an approach connecting environments, economic development and the quality of life. Irrespective of how it is defined, it recognises that resource exploitation is inevitable and desirable.

The concept sustainable development was first used in the *World Conservation Strategy* and emphasized sustainability in ecological terms as opposed to economic development. The emphasis was on:

- a) the maintenance of ecological processes;
- b) the sustainable use of resources; and
- c) maintenance of genetic diversity (Soussan, 1992:24).

The focus was on the physical environment. The shortcoming of this formulation lies in the fact that it was anti-developmental, and saw economic-environment relationship only in terms of the human impact on the environment. It, therefore, tended to attack symptoms instead of causes of environmental degradation. Poverty and the activities of the poor were identified as one of the main causes of non-sustainable development. However, this view failed to recognise that poverty and environmental degradation are results of developmental processes and patterns (Soussan, 1992).

A reformulation of the concept led to the creation of the World Commission on Environment and Development (the Brundtland Commission) in 1984 which defined sustainable development as:

Development that meets the needs of the present without compromising the ability of future generations to meet their needs (Soussan, 1992:24).

It saw sustainable development as recognising the need for, and the necessity to promote and maximize economic growth. But this growth should not jeopardise

the condition of vulnerable people, or deplete the future viability or capacity of the resource base. Therefore, it saw the quality of growth as important as the quantity of growth.

There are two key issues in sustainable development identified by the Brundtland Report:

- a) The basic needs of all people must be met in a secure and dignified manner, i.e. priority status must be accorded to the needs of the poor; and
- b) development has absolute limits since potential for development depends on the state of technology and social organization, and their impact on the environment (Soussan, 1992:25).

Disparities in economic and political power lead to poverty, resource depletion and environmental degradation. Thus, sustainable development can be attained through comprehensive changes in the way resources and power are managed, and in existing policies and practices.

The Brundtland Report identified policy objectives of sustainable development to include:

- a) Reviving economic growth;
- b) changing the quality of life;
- c) meeting essential needs for jobs, food, energy, water and sanitation;
- d) ensuring a sustainable level of population;
- e) conserving and enhancing the resource base;

- f) re-orienting technology and managing risk; and
- g) merging environment and economics in decision making processes (Soussan, 1992:25).

To achieve these goals, the following changes were recommended:

- a) A political system which allows effective citizen participation in the decision making process;
- b) an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis;
- c) a social system that provides solutions to the tensions arising from the present form of disharmonious development;
- d) a production system that respects the obligation to preserve the ecological base for development;
- e) a technological system that can search continuously for new solutions;
- f) an international system that fosters sustainable patterns of trade and finance; and
- g) an administrative system that is flexible and has the capacity for self-correction (Soussan, 1992:26).

Thus, it set a broad agenda for change. However, it did not confront the many barriers which mitigate against achieving these goals. The statements, in the final analysis, are too broad to translate into concrete goals. Nevertheless, it set the tone that policies can no longer focus on simple economic growth alone, but must account for the environmental and distributional effects.

The challenge is to develop the principles of sustainable development into achievable policies that can result in concrete change. In view of this, Pearce, et al (1989: 27-28) identify three precepts that must form the core of sustainable development:

- a) The need to give proper value to the environment. Once the value of the environment is understood and appreciated it will not be poorly used and abused.
- b) The need to expand the life-span of development policies - i.e. "the notion of futurity" which emphasizes that policies should cover short and medium terms as well as long term impact of decision to include inter-generational impact of resource utilization and management. The idea is that the present generation should pass on as much as it inherits to the next. However, the problem is that ability to predict future needs, values, resources and technical developments is limited. Also, it is true that the value of resources changes over time.
- c) The need to provide for the poor in society, i.e. "intra-generational equity". This requires policies which reduce the gap between the rich and the poor. Unfortunately, the differences of opinion and positions over the causes of poverty and solutions are too wide to yield any common ground.

Sustainable development, therefore, raises questions about the control and utilization of resources and who has the power to decide what kind of development to pursue. The logic of sustainable development is that the future must not be based on qualitatively different forms of development than what has been experienced so far. New approaches to planning require substantial devotion of political and economic decision making power; raise the question of control and accountability which demand better mechanism of control over societal institutions and processes; and recognise that people must exert pressure based on their long term needs and goals.

Elements in Sustainable Development

The various conceptions of sustainable development include several important elements. Some of these are that: Current policies should not impair the prospects of future living standards, i.e. economies should be managed in such a way that the assets base is improved and maintained to the extent that society is able to live on the dividends; the quality of growth and its benefits must be equitably distributed as a way of combating poverty; development must improve health care, education and social well-being as a basis for economic development and population stabilization; the development process must be participatory and involve the grassroots; wealth of countries should be redistributed and shared between the present and future generations and thus make access to resources more equal; societies must develop more efficient use of resources; and emphasis must shift to cleaner and more efficient technologies to fit local needs (World Resources Institute et al, 1992).

All these point to the fact that sustainable development requires simultaneous progress along several dimensions including economic, human, environmental, technological and political. These are interrelated and action in one will reinforce goals in others. For example, appropriate investment in human capital, especially among the poor, will also support efforts to reduce poverty, to stabilize population, to narrow economic inequalities, to prevent further degradation of the land, and to allow efficient use of technology (World Resource Institute et al, 1992).

The functions of the environment crucial for our discussion and analysis are :

as a source of natural resources (raw materials, energy); as a source of environmental services (life-support, recreation, beauty); and as an assimilator of residuals (Bojo and Unemo, 1990:19).

Bojo (1991) identifies how environmental changes, in the general sense, affect humans. The channels include: through living systems involving human health; economic productivity such as agriculture (forestry, fisheries); and other ecosystem impacts such as ecological diversity and stability. The second channel is through non-living systems such as material damage (soiling, production costs); and weather, climate and other avenues such as odor - visibility and visual aesthetics.

In the context of development, the emphasis of sustainability is on economic productivity, viability and maintenance of elements of ecological systems such as soils, water and forests. The conception of sustainable development raises several issues including the question of the extent to which sustainable development is feasible. Bojo, Maler and Unemo (1990) contend that this question of feasibility cannot be answered because of insufficient empirical information. They emphasize that if exhaustible resources have no replacement, then sustainable development is not feasible as exhaustible resources will disappear; and that constant and positive population growth will also destroy the possibilities for sustainable development.

Along the same lines, World Resource Institute et al (1992:92), indicate that based on current land utilization processes and population dynamics, farmers and managers of rural resources, for example, have two options: To intensify production on already cultivated areas; or to expand into new areas. Available data indicate that increase in yields over the past 25 years have been due to intensification. However, this has its own problems because of the associated increasing use of chemicals, diverting more water for irrigation and changing land use patterns. Run off of fertilizer and animal wastes also pollute waters and create other land problems.

On the other hand, increasing land under cultivation is equally problematic. Over 60% of deforestation in developing countries is directly attributed to agricultural expansion. Most of this expansion is led by poor farmers who are attracted by growing market demands. However, even though they may meet

their immediate food and income requirements, this does not lead to long term solutions due to the fragile nature of the land. The challenge, therefore, is how to balance intensive and extensive growth of agriculture to avoid environmental damage that constrains productivity (World Resource Institute et al, 1992).

Poverty and the Environment

United Nations Fund for Population Activities (UNFPA) (1991) argues that current economic order does not promote reliable and sustainable development; and that the quality of life is inseparable from the quality of the environment. Both are also inseparable from the issue of human numbers and concentration. For example, employment is related to environmental concerns. Without employment many people face three choices: To further congest agricultural lands; to migrate to urban areas; or to migrate to marginal zones, i.e. areas which are too wet, too dry, or too hilly for conventional agriculture, and hence most susceptible to environmental damage.

Increase in poverty means increase in the numbers of the absolute poor who must find livelihood in marginal environments. Landlessness leads to increased numbers of marginal people. This is associated with inadequate socio-economic infrastructure and resource base. For example, most African cities are the foci for some of the worst forms of poverty known, with large numbers of people living at the margins of survival. Available data indicate that 92 out of every 100 houses built in Africa in the 1980s were located in shanties and slums, and were fashioned from cardboard, plastic, canvas and other such vulnerable materials (United Nations Fund for Population Activities (UNFPA), 1991:61). Absolute poverty, therefore, is a key issue in the debate on the quality of life. It is defined as "a condition of life so limited by malnutrition, illiteracy, disease, squalid surroundings, high infant mortality and low life expectancy so as to be beneath any reasonable definition of human decency" (UNFPA, 1991:65).

Uncontrolled population growth is seen as a factor of poverty. High population is a pre-eminent factor in the deteriorating environmental situation. Population growth is faster among the poor. On the other hand, environmental decline is another determinant of poverty. The very poor are usually totally dependent on the environmental resource base such as soils, vegetation, and water as their main stock of economic capital. At the same time, they are compelled to over-exploit the resource base just to survive. This in turn, serves to entrench their poverty. Also the issue of feminization of poverty cannot be neglected. The impoverished are more likely to be females than males, heads of households, young and single parents.

As population expands and the numbers of the poor increase, demands on resources will also increase. For example, the demand for food, fuel and wood would put great pressure on agricultural land as well as on stocks of water, fish and timber. At the same time, natural resources have to be managed with care. They also need to be protected from misuse, and inadequate stewardship resulting from poverty, population pressure, ignorance and corruption. In this regard, forests, wetlands, coastal areas and grasslands have to be protected from overuse and degradation because of their high ecological value (World Resource Institute et al, 1992).

Poverty, therefore, is a major problem, and perhaps the greatest challenge facing nations today. Many people struggle to survive on less than a dollar a day. In the 1950s and 1960s, poverty reduction strategies emphasized investment in infrastructure and rapid industrialization. The 1970s saw emphasis being placed on integrated rural development as the basis for poverty alleviation. The early 1980s emphasized policies aimed at restoring growth in the context of widespread macroeconomic and debt problems. From the late 1980s to date, the emphasis has been on environmental protection and the role of women in fighting poverty, as well as incorporating the various experiences gained from the earlier efforts (Sandstrom, 1994).

All the various experiences at poverty reduction point to the fact that "people must be the centre of any strategy, as both the means and the ends of poverty reduction" (Sandstrom, 1994:31); and - that poverty alleviation must be the core of all development objectives and should determine policies and investments. Poverty reduction, in the context of sustainable development, therefore, requires economic growth and investment in people, two processes which are mutually reinforcing (Sandstrom, 1994). For example, good education, health, nutrition and family planning are necessary for the poor to contribute to, and participate in growth.

However, for poverty reduction programmes to be effective, they must be environmentally sustainable. The poor always suffer the most from common and persistent problems such as dirty water, inadequate sanitation and soil erosion. Unfortunately, the poor cannot invest in natural resources that would yield positive returns in the future. In this respect, they have little choice but to over exploit available natural resources. Experience with poverty alleviation programmes point to the fundamental role of women in the process since they play the major role of food producers and protectors of the environment. Investment in women, especially with respect to access to education and other institutions, is a major anti-poverty strategy (Sandstrom, 1994).

A major barrier to sustainable development is lack of political will and commitment. Investing in human development, creating a conducive atmosphere for economic growth and implementing measures to protect the environment all cost money. Finding the money involves difficult choices and political commitment that makes it possible. The challenge of sustainable development is to provide for basic human needs, stabilize population growth and stimulate economic activities aimed at poverty alleviation while at the same time conserving natural resources essential for economic growth and development. The poor normally have the lowest levels of education, poorest health, least access to safe water and sanitation and impoverished resource base (World Resource Institute et al, 1992).

Sustainable development requires paying attention to several inter-related issues simultaneously. These issues include economic development to alleviate poverty and to provide jobs; investing in human capital, stabilization of population and providing opportunities to improve well-being; protection of natural resources, by giving the poor and the marginalized alternative livelihoods to that of over exploited marginal lands; and providing support for improved technologies and practices that are appropriate and efficient.

Rapid population growth, agricultural modernization and land tenure practices are increasingly pushing large numbers of people out of productive lands onto marginal lands or into the cities. Those on marginal lands are forced into agricultural practices that are detrimental to the environment such as grazing where vegetation is sparse and shrubs are easily damaged; and creating agricultural plots on hillsides and other ecologically sensitive areas. The effects include soil erosion, loss of natural habitat and of species, and pollution of rivers and other water bodies. These further reduce the carrying capacity and productivity of the land; and exacerbates poverty and future economic prospects.

The relationship between poverty and environmental degradation is clearer in rural areas. Rural areas have majority of populations and hence majority of the poor. Rural poverty is also tied to urban poverty due to migration from rural to urban areas. The poor live shorter and less healthier lives due to lack of access to basic social services. An urgent priority is to provide basic services in education and health for the poor majority. Investment in primary education is one way of providing resources to the poor. It is also believed that effective decentralization will promote more efficient and effective services; and that primary health care offers an effective, quick and relatively inexpensive method of improving the health of majority of the population, especially the poor. Improved health and education positively affect the population. For example, well planned and managed family planning services effectively reduce family size, improve the health of mothers and children, and lead to more balanced population growth.

All these point to the need to find development modalities which work. For example, there is an urgent need to design structural adjustment programmes (SAP) which minimize impact on the poor, reduce future poverty, and promote sustainable natural resources management. Integrating poverty alleviation programmes into the design of adjustment and development programmes should be a priority and not an after thought as has been the case. Sustainable development also calls for participatory and community based development initiatives. Development initiatives must address needs identified by grassroots of local people; involve grassroots in the design and implementation of projects, defining problems and finding solutions; and use principles and techniques appropriate or suitable for local conditions (World Resource Institute, 1992).

Policy Challenges

Policy makers must reconcile the needs and aspirations of their societies with the limitations of the natural world. Three major challenges, in this respect, revolve around food production: Raising yields in a manner less damaging to the environment than in the past; urbanization and pollution, in the sense that with increasing urbanization there will be formidable problems associated with social and institutional change, investment in infrastructure and pollution control; and human encroachment, in the sense that with increase in population, the scale of human activities as well as the pressures on fragile ecosystems, also increase (Serageldin, 1993).

The operational implications of the concept of sustainable development point to the need for policy to address and integrate several view points, the prominent ones being the economist view point that focuses on methods to maximize human welfare within the context and constraints of existing capital stock and technologies; the ecologist framework which stresses the importance of preserving ecological subsystems seen as critical for overall stability of the global ecosystem, including "maintaining the reliance and dynamic adaptability of natural support systems" (Serageldin, 1993:7); and the sociological view which

emphasizes that human beings are key actors in the environment whose patterns of social organizations lie at the core of solutions to achieving sustainable development. In this respect, insufficient attention to social factors in the development process negatively affects programmes and projects (Serageldin, 1993; Cernea, 1993; Rees, 1993; Munasinghe, 1993).

Sustainable development is "socially constructed." It therefore, recognises the importance of social action; peoples' relationships; forms of social organizations; institutional arrangements; and the cultural context within which behaviour is regulated. Serageldin (1993:11), in addition, maintains that:

It offers a set of social techniques apt to prompt coordinated social action, inhibit detrimental behaviour, foster association, craft alternative social arrangements, and help develop social capital.

Poverty alleviation policies must also take into account environmental constraints in the same way that policies to better manage resources and protect the environment must also appreciate poverty-related constraints such as widespread health problems and lower productivity. Thus, policies must seek to reduce risks faced by the poor as well as land tenure insecurity; address factors that cause maldistribution; and effectively strengthen education, nutrition and public health programmes, as well as opportunities for political participation and control. Policies, therefore, must promote an enabling environment that provides adequate infrastructure, services and incentives to boost production; and promote capacities for healthier, better educated and trained people as well as an institutional framework for development (Shaw, 1992).

Policies must also emphasize the mobilization of social forces that promote diversity of life and maintain a balance between the needed natural resources and the regenerative capacity of nature. This requires a holistic view of human needs incorporating the social, spiritual, intellectual and cultural dimensions of human experience. Policy must seek to bring humanity back to nature so as to enable

society heed nature's limits. In this regard, policies must be informed by views, that balance and harmony must govern relationships between humans and nature; and that individuals and societies must exist and function as part of the complex natural system.

In this sense, sustainable development must be integrated into society's cultural tradition so as to make it people centered (Asian NGO Coalition et al, 1993). This is the first step towards political and economic empowerment of the poor so essential for sustainable development necessary to safeguard the environment. Sustainable development must, therefore, build on the positive qualities of indigenous cultures and societies; their knowledge of natural resources and the environment; and their ability to mobilize labour and other resources (Davis and Partridge, 1994).

It is necessary to pursue a two pronged approach. These involve first, policies to promote efficient growth and utilization of assets of the masses including their labour. The second relates to investing in public expenditures and institutions to provide equitable access to social services. Salop (1992) argues that public expenditures must facilitate access to public education, health care and family planning services. This will enable the poor to acquire skills and develop other talents, improve their productivity and strive for socio-economic independence. In the long run, an atmosphere must be created to promote policies that build and maintain infrastructure, improve productivity, reform land tenure, foster public accountability and transparency, improve position of women and focus more attention on the poorest segment of society (World Resource Institute et al, 1992).

In environmental policy terms, creating employment must be a priority. Faster rural employment growth can stem rural urban migration, increase people's earning, reduce pressure on resources and the environment and improve the position of women. Rural poverty and environmental degradation pose serious burdens for women. Thus, expanded opportunities for women can yield

significant returns. The unprecedented expansion in the numbers of the poor, uncontrolled population growth and environmental degradation are aggravated by policies that encourage waste and resource degradation, especially in agriculture, forestry and energy. For example, low prices for agricultural produce to benefit urban workers discourage investment. In this context, environmental protection requires economic incentives including prices and tax policies that favour conservation as opposed to degradation. Also, it is necessary, as a long term strategy, to build local institutional capacity to monitor and correct environmental abuses.

There must be policies too, which seek to improve efficiency and effectiveness of locally known techniques. Development and use of labour - intensive, energy efficient, low-cost technologies that improve productivity as well as conserve natural resources is necessary. Energy technologies are critical because of dependence on traditional biomass fuels - fuelwood, charcoal, dung, and crop residues. For example, as farmers burn dung and agricultural residue instead of using them as fertilizers, the cycle of poverty and environmental destruction is further aggravated (World Resource Institute et al, 1992).

Conclusion

Sustainable development calls for socio-economic and political systems which are compatible with environmental realities. In essence, it is a call to manage environmental resources in a way that move people out of poverty, and provide requisite services for rapidly expanding populations through economic growth (Schmidheiny, 1992).

There is need, therefore, for economic reforms to provide opportunities for the masses. However, such reforms must be accompanied by political arrangements which allow participatory democracy in both political and economic terms. The masses must have a say in all matters, including setting the environmental policy agenda, especially, as they are constantly making decisions in fields, forests and

other work places. It is emphasized that whereas empowerment by itself does not guarantee efficient management of resources, powerlessness does not facilitate the means or the motivation for involvement in environmental conservation (Schmidheiny, 1992).

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