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Development and Environment

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Abstract:

Economic development without harming the natural environment has been the overriding goal of all policy measures of the central and state govt. Development and environment are interrelated issues and as we know development is impossible without natural resources but extensive use of these resources damages the ecosystem warranting a more cohesive approach to achieve developmental objectives without affecting the natural resource environment.

The objective of this paper is to explain and address the issues and concerns substantiated with data and cases in the third world perspective besides delving with the data from global organizations and agencies.

The agenda and the action plan to achieve a sustainable economic development path without ignoring the environmental concerns is the soul of this paper and all efforts are made to highlight the issues with corrective measures towards achieving socio-economic objectives which development intends to promote including an increase in per capita income and also environmental quality. There are obvious conflicts between the two objectives but to high achieve economic growth both development and environment have to be dealt with in a way that one compliments the other. To effectively integrate environment and development in the policies and practices of countries with different developmental indicators, it is necessary to formulate and implement integrated laws and regulations based on sound social, ecological, economic and scientific principles those are the highlights of this paper.

“There is enough in this world for everybody's need but not for everybody's greed”. -Mahatma Gandhi

1. Introduction

Now-a-days, one of the most puzzling questions striking to all of our minds is the relationship of environment and development. Claims and counter claims that material progress is the grand objective of an economy are too many and too loaded. It becomes difficult for a student of economics to work out the net balance of the arguments and to pass a judgment. An attempt has been made to put forward a logical view substantiated with data and cases. The paper is divided into six sections following this introduction. The sections are:

1. Meaning of Environment and Development
2. The Controversy
3. The Third World Perspective
4. The Indian Scenario
5. The Agenda for Actions
6. Concluding Observations

With the resurgence of interest in protecting the environment on a wide scale and peoples' movement all over the World including India over the adverse impact of development projects, environmental issues can't any longer be brushed aside with contempt by politicians and economists. There was a time, particularly during the Stockholm Conference on "Environment and Development" in 1972, when it was fashionable to argue that development is the primary concern of developing countries who have to fight poverty and unemployment on an urgent basis, and that environment, therefore, should have low priority.

Development continues to be of primary concern like that is the only way we can overcome the problems of poverty and unemployment in developing countries. But it is now recognized widely that development without regard to environmental consequences can't be sustained and defeats the very purpose of development by aggravating poverty and unemployment. Environment is not just a matter of aesthetic concern or of rearing some white legged mouse from going extinct as in a popular cartoon serial which lampoons at the environmentalists. Environmental concerns arise essentially on two grounds

- One is that, a reckless use of resources to maximize short-run gain can lead to depletion which would adversely affect development in future, which may not be very distant future.

- Second is that, one does not have to wait for future generation to feel the adverse impact on environment. Livelihoods are lost, sources of drinking water are made unusable, and victims are neglected to agonizing misery-sometimes irreversibly, due to negative externalities of so-called development projects. While a few already better off sections may become still better off, many others become worse off.

2. The Concepts in the Perspective of the Argument

Before proceeding further, it may be fruitful to keep the meaning of development and environment in their right perspective. To be precise, economic development implies growth plus change involving a sustained and substantial increase in product per capita. Environment refers to the total surroundings of the human beings.

Development implies change leading to improvement or progress. Consequently, what constitutes real development is a 'value-laden' issue. Since development is a value word, implying change that is desirable, there is no consensus as to its meaning. What constitutes development depends on what social goals are being advocated by the development agencies, the government, analysts or advisors. We thus take development to be a vector of desirable social objectives, which the society seeks to achieve over a period of time. The elements of this vector might include the following:

1. Increases in real income per capita
2. Improvements in health and nutritional status
3. Educational achievements
4. A 'fairer' distribution of income
5. Better quality of environment
6. Access to resources
7. Increases in basic freedoms

The environment, of the human organism is a complex system of physical, biological and social mechanism that must continually adapt to the consequences of human choices. While man is unique in that he can significantly determine his environment, he is similar to other organisms in that his behaviour at any point of time is highly constrained by the environment he has created. The environment is a social as well as a physical phenomenon and alternations in the entire range of man's physical, biological, institutional and social fabric may be required before the serious problems of the quality of life can be solved.

'Tree means water, water means bread and bread means life' is perhaps the best expression denoting the relationship between a tree and bread-environment and development, nature and human being, non-living and living beings of our universe. Since time immemorial man has been worshipping the nature-Trees, mountains, rivers, sun and moon, sky and stars, mother earth, animals etc. out of awe or fear, compassion and sense of *belonging* thus seeking both the solace and blessings of the creator of this universe. This precise relationship has made possible the survival of man, culture and the civilization.

Development and environment are the two sides of the same coin. The main aim of development is to provide comforts and decencies and life to the human race and make human living happier. Environment plays a protective and promotional role in the survival of humanity. Environment can't alone make the human life decent and livable, nor can economic development provide solutions to all our economic ills, "there is a close relationship between economic development and environment. Both are absolutely vital for humanity. It is difficult to divorce one from the other.

Development as a goal is unexceptionable which has to be a constructive combination of the cake being allowed to grow- and the cake being allowed to be shared. After all, how does development take place? We use resources of different types, physical, human, organizational and *innovation* of policy. But, ultimately, we try to use natural resources for the common good. In this context, environment has distinct functions. For example:

- a. Environment supplies natural resources which have to be properly conserved and utilized in a manner that such resources become sustainable.
- b. Environment supplies amenities in the form of natural habitats for living a reasonably comfortable and purposeful life.
- c. Environment acts as a reservoir for waste products and must have the capacity to absorb them without degrading themselves.

All these functions demand very careful attention towards preservation, regeneration and enrichment of resource bases so that human life and heritage are protected and preserved. As Norman Myres puts it 'An individual can be said to be healthy only if he /she is well fed, decently housed and adequately educated, enjoys pure water, proper sanitation and a clean environment and is able to secure work, live in peace and play a significant part in the community.

2.1. The Controversy: Genesis and Facts

The qualitative change of the environment occurred due to development is known by signals called indicators of development. Knowledge and capacity of man to use nature of production has increased tremendously. Man, returns to the environment heat, toxic air, hazardous waste materials etc. generated in production process. After a limit, these cause *pollution*. More the production more will be waste material and more will be the pollution.

Pollution affects the physical and mental* health of the people. This reduces the welfare of people as well as their productivity and efficiency as a factor of production. Extra resources are required to produce the same quantity due to deteriorated environment. The cost incurred on defensive operations to reduce damage from pollution affect the growth rate. More the resources are used to offset the damage, less the resources will be available for development. *Todaro* presents three core values like:

- a. Life-sustenance, which implies that fulfillment of necessities, is a must.
- b. Self-esteem implying the sense of self-respect.
- c. Freedom from servitude implying the divorce life styles.

In a general sense, when we arrive at the point 'development', we mean only the increase in per capita income and welfare of the

people. In an economic sense, the per capita income increases when the production increases, employment increases- which will only be possible by the utilisation of the resources (natural) supplied by the environment. So long as we use the natural resources and throw away the wastes to the environment, we don't bother about the environment at all. But when we come into the pollution and deterioration of environment, there starts the controversy of the relationship as whether:

Development should take place at the cost of environment? Or

Environment should be saved without development? Or

Environment and development should go together on one way?

Coming to the first question the famous English Economist, E.J. Mishan postulates a sharp dichotomy of tastes between what we may call the 'modernists' and the 'environmentalists'. The modernists desire maximum consumption of goods and services and therefore favour all policies that increase the rate of growth of industrial production. They don't mind the disamenity of modern life, and in fact, even thrive on its *noise, confusion, and excitement*. The environmentalists on the other hand, stand willing to sacrifice many of the comforts and conveniences to be derived from modern production techniques in order to enjoy greater amenity. So, according to the modernists, development should take place at an urgent basis without the thought and care for the environment.

On the second question, more recent arguments against the benefits of economic growth go beyond the conservationist issues. The modern radical critique of economic growth centers on fixity of the environmental resources of the earth*. The basic point is quite straight forward. The assimilative and absorptive capacities of the earth's air, water and land resources are finite and therefore sustained economic growth producing ever higher levels of effluents most sooner or later overwhelm these resources. In this context, Kenneth Boulding's 'Spaceship Earth*' vision can be taken into account which considers the earth as a closed system, in contrast to the older and still prevalent conception that natural resources are boundless and that man can develop and exploit them without limit. In Boulding's perspective, earth's environmental resources should be viewed as essential, irreplaceable social capital and the major purpose of economic activity should be to conserve this stock of capital intact for future generations.

According to Barkley and Seckler, the rate in which the economic development is continuing in the developed countries and if the present rapid rates of development are continued, a 'playboy' world' of electronic gadgets and plastic habitat is virtually certain. The natural world will be reduced to a kind of 'Curiosum ' to be visited occasionally as people now visit 'Wildlife' in the zoo.

All growing economies face the problem of a deterioration of their environmental quality. In spite of the growing up of different forms of social and economic organizations, the decay still rises. For example, in the United States, the individualistic-and highly dispersed incentive system is often blamed for the demise of the passenger pigeon, the cutting of—the North Woods, the polluting of Lake Eric and the smog that now hangs over the cities. The deterioration of the environment is not a by-product of economic growth as so many people believe; rather, it is in a fundamental sense, a direct product. Again, they like to express that, as one never gets something for nothing, difficult choices must always be made. If an adequate level of environmental quality is to be restored and maintained, some conventional economic commodities will have to be given up. If the freedom to choose the kind of environment, in which people want to live, is to be preserved, the freedom of choosing to destroy the environment must be curbed.

Now the important third question arises as, can economic development and environmental quality be made compatible?

Economists are of the view that, sustained economic growth in the last 200 years has increased human welfare. Data about economic and social conditions prior to industrialization are scarce and unreliable, but nonetheless, it is clear that life expectancies and health, in general, in all developed societies have improved dramatically over their levels of two centuries or more ago. Sustained economic growth must be credited for this revolution in the human condition, both directly and indirectly. Directly through adequate food, housing and shelter available to the average man today but not to his great grandfather and indirectly through advances in medical technology, which were part of the renaissance in all the sciences that was both a pre-requisite and a by-product of the Industrial Revolution. Economists have, until very recently, accepted that growth enhances welfare which implies an increase in consumption per capita, greater longevity and better health and freedom for ceaseless toil.

Though the general perception is one of conflict between environment and economic development, in quite a few ways even economic development is helpful both in improving environment and in becoming less vulnerable to harsh effects of environment. In so far as economic development creates alternative avenues of employment, it can reduce pressure on land and forests and can prevent land degradation and deforestation. One of the major reasons for loss of forest in developing countries is conversion of forest lands into cultivated lands since employment opportunities in the non-agricultural sector are limited. A boost to employment in then on farm sector can thus help environment. Economic development also "makes available resources with which it is possible to allocate more funds for improvement of environment. Economic development also creates greater environmental concerns -and raises the demand for environmental preservation as a source of recreation. Even the estimate of existence value of environment such as wild life improves with economic development. Economic development, by making people less dependent directly on environment, also makes them less vulnerable to environmental uncertainties and natural vagaries. It was found through a cross-section study of districts of Southern India at two points of time (1971 and 1981) that the differences in the quality of life between drought prone and non-drought prone areas have declined in the process of development. Developed countries in Europe and America are able to carry on and prosper in spite of harsh weather.

All the above explained things are only the theoretical aspects of the controversy. But just escaping out of the theoretical world, when we step into the real world, we can come across the various types of problems and challenges of today which are mentioned in the next page.

1. Air pollution
2. Airborne Lead

3. Acid rain
4. Depletion of Ozone Layer
5. Green House Effect
6. Water pollution
7. Land pollution
8. Deforestation
9. Pesticides Pollution
10. Noise pollution
11. Ocean Pollution and
12. Nuclear Pollution.

From a study, it is found that, 25% of the worlds' population consumes 85 % of its wealth and produce 90 % of its waste. If the rich reduce their wasteful consumption by 25 %, worldwide pollution will be reduced by 22.5 %, while if the 75 % poor reduce consumption totally, the reduction in pollution from this earth would be only 10%.

According to the ' World Development Report', 1992 of the World Bank, it is often the poorest who suffer most from the consequences of pollution and environmental degradation. Unlike the rich, the poor can't afford to protect themselves from contaminated water. In cities, they are more likely to spend much of their time on the streets, breathing polluted air and in rural areas they are more likely to cook on open fires of wood or dung, *inhaling* dangerous fumes. Also, their lands are most likely to suffer from soil erosion. The poor may also draw a large part of their livelihood from un-marketed environmental resources; common grazing lands, for example, or forests where food, fuel and building materials have traditionally been gathered. The loss of such resources may particularly harm the poorest.

From the report, it is found that:

- 1) The one-third of the worlds' population is in inadequate sanitation and one billion are without safe water.
- 2) About 1.3 billion people are exposed to unsafe conditions which are caused by soot and smoke.
- 3) About 300 to 700 million women and children are suffering from severe indoor air pollution from *cooking* fires.
- 4) Hundreds of millions of farmers, forest dwellers and indigenous people are depending on the land and their livelihoods depend on good environmental stewardship.

2.2. The Third World Perspective

There was an open and often excited debate about the various threats to the quality of life in the developed world. Partly, this was a reaction against unbridled materialism, partly certain nervousness that man may be losing control over the side effects of the various progresses.

The Third World countries have also begun to appreciate the relevance of the environmental concern to their own situations, but there are some fundamental differences between their concerns and those of the developed countries. The essential differences lie on the following dimensions

2.2.1. Cause - Cure Aspect

The first and most important difference is that, the third World is not merely worried about the quality of life, it is worried about life itself. In many parts, life itself is endangered by poor water, poor sanitation, crowded housing, sickness, disease and natural disasters. The essential difference is that the environmental problems of these poor societies arise not because of technology or development, but from the lack of

control of man over nature. So, unlike the developed countries, development is often a cure, not a cause for environmental problems.

2.2.2. Present - Future Aspect

Whenever a choice has to be made between present survival or future well-being, it is inevitable that the choice would be made in favour of the present generation. The society of the Third World Countries faces a choice when certain natural resources or environment are going to be destroyed in the pursuit of economic development. In this case, greater knowledge about what the future damage is going to be, can enable these societies to make more rational choices now.

2.2.3. Animal - Human Aspect

Confronted with the preservation of wildlife or human life, the third world countries have to get for the later. If, for instance, an irrigation project is going to be constructed on destroying one of the famous national parks, this is a cost that the society has to carefully compare with the other economic alternatives. In 'Silent Valley' of Kerala the debate was cast as 'Monkey Vs Man'. Monkey finally won, but man did not lose as alternative could be found.

2.2.4. Technological Aspect

The Third World Countries should adopt new technology and innovations in order to increase the rate of economic development by increasing production and should at the same time also adopt new technique to control pollution resulted from production technology.

It is found that, the developing countries are adopting new technologies from the developed countries which can, at a later stage, pick and choose various elements out of this technology suitable to their conditions.

2.2.5. Industrial Aspect

In the Third World countries, the problems arise out of relocation of the * polluting Indus tries' like petroleum refining chemicals, metal extracting and processing, paper and pulp, and so on, from developed to developing countries. In spite of the pollution, these countries can't leave these industries given their economic benefit. Therefore, they should adopt the new technologies to control pollution and environmental degradation caused by such industries.

2.3. The Indian Scenario

Environmental protection and ecological balances are highly essential for sustainable development, but our poor planning and in many cases mindless and ruthless exploitation of natural resources have degraded our physical environment. The new economic policy and structural adjustment programmes including their associates. e.g. privatization, globalization and liberalization as well as the export-led growth strategy are very much expected to further degrade our environment, if corrective measures are not simultaneously introduced.

The export led growth model under the new economic policies has rapidly been sacrificing natural resources to earn foreign exchange, which is obvious in the field of agriculture, fishery, aquaculture, mining and other industries. The heavy dose of chemical fertilizers, pesticides and insecticides and other artificial inputs are proving to be ecologically destructive. The problem of land degradation, deforestation, soil salinity-, and soil-erosion, ground water depletion, and even water logging in certain areas are some of the major consequences of the current developmental process which advocates 'material growth only'. Our heavy claims in the field of export growth of fisheries, floriculture, and other forest and agro-products, ores and minerals as well as some industrial goods are all likely to prove disastrous for our environmental conditions.

The policy of liberalization, a major ingredient of NPE, has further aggravated the problems of pollution and environmental degeneration. Relaxation in various controls for reliefs and several concessions for industrial development of backward areas, degradation of industries especially the automobile industries as well as liberalization of imports which has also got a tendency to take the country a dumping ground of waste materials, are proving to be harmful to the health of the economy. Therefore, what is needed urgently is the requirement of modification in their policies. A separate model of sustainable development which will ultimately reshape the whole environment exploiting growth strategy that we are currently following is required. A growth strategy must have orientation towards the forest dwellers, small and marginal farmers, village women, small scale fisher folk, the tribals and other such eco-system dependent people and then alone we can have sustainable economic development conditions. Every effort should also be made for proper environment management under the present condition. Every effort should also be made for proper environment management under the present conditions.

Since the Sixth Five Year Plan the Government of India has been paying attention to environmental planning at both the national and international level. During the sixth, seventh and eighth plans specific allocations were made for environmental planning. In the central sector, the outlays have been Rs.40 crores in the Sixth plan, Rs.425 crores in the Seventh Plan and Rs.675 crores in the eighth plan. In addition, Minimum Needs Programmes, 20 point economic" programmes and NREP have environment management components. The plans emphasized on control and monitoring of pollutions, conservation of resources, development of nature, preservation of wild life, eco-development programmes, environmental research, development and training, decentralization, Ganga Action Plan and Social Forestry.

The pollution identified is those arising from conditions of poverty and underdevelopment such as air, water, land, noise, radiation and odour. Secondly, these arising as negative effects of the very process of development due to industrialization and urbanization. These cause all the communicable diseases. The main agencies created to control pollution are Department of Environment at the central level and Cells at the state level. Central and State Pollution Control Boards, Planning Commission, Central. Ganga Authority and Island Development Authority along with other institutions.

The main [policies to protect and plan environment in India are enshrined in the National Forest Policy 1988. Draft Environmental Policy Statement 1991, the Forest Act 1980-88, National Wild Life Action Plan, Draft National Conservation strategy. The Environmental Protection Act of 1986, the Water Act of 1974-88 and the Air Act 1981-87. The future policy should stress on the identification of pollutions and their control at the point of origin, particularly, in the industrial sector with built in mechanism. There should be increasing participation and involvement of the people, local authorities and Panchayats with necessary technical help. There should be effective and co-ordinated implementation of the environmental planning programmes along with a policy of decentralization in activities and actions. There is need for an integrated national policy for flood control, irrigation and hydro-electricity.

Environmental Planning is also a private responsibility for self-help. Hence, there should be cultivation of clean habits and living among the people with devotion to good and green life.

On the whole, environment, ecology and development must be balanced to meet the needs of the Indian Society. A national environmental awareness campaign is conducted every year on a related theme for enhancing general awareness of environmental issues. A Social Audit Panel has been constituted in November 1995 to assess and mobilize peoples' support and participation for environmental planning.

2.4. *The Agenda for Actions*

The correct perspective is to accept the protection of the environment as an essential part of development. Without adequate environmental protection, development is undermined, and without development resources are inadequate for needed investments, and environmental protection. The coming generation presents unprecedented challenges and opportunities. Between 1990 and 2030, as the world's population grows by 3.7 billion, food production will need to double and industrial output and energy use will probably triple worldwide and increase five folds in developing countries. This growth brings with it the risk of appalling environmental damage. Alternatively, it could bring with it better environmental protection, cleaner air and water, and the virtual elimination of acute poverty. Policy choices will make the difference.

Policies for Sustained Development

Two types of policies are required, those that build on the positive links between development and the environment, and those that break the negative links. Under policies for sustained development come the following heads.

- a) Building on the positive links
- b) Targeted environmental policies
- c) The costs of better environment

2.4.1. Building on the Positive Links

The scope for actions that promote income growth, poverty alleviation and environmental improvement is very large, especially in developing countries. Such win-win policy include: -

- i. Reducing excessive use of fossil fuels, pesticides and excessive logging.
- ii. Clarifying rights to manage and own land, forests and fisheries.
- iii. Accelerating provision of sanitation and clean water, education (especially for girls), family planning services and agricultural extension, credit and research.
- iv. Taking measures to empower, educate and involve farmers, local communities, indigenous people and women so that they can make decision and investments in their long-term interests.

2.4.2. Targeted Environmental Policies

But these 'win-win' policies will not be enough. Also essential are strong policies and institutions targeted at specific environmental problems which break the negative relations. Lessons for effective policy- making include the following: -

- i. Trade-offs between income and environmental quality need to be carefully assessed, taking long - term, uncertain and irreversible impacts into account. Carefully balancing costs and benefits is especially important for developing countries, where resources are scarce and where basic needs still must be met.
- ii. Standards' and policies need to be realistic and consistent with the monitoring and enforcement capacity and the administrative traditions of the country.
- iii. Government needs to curb the power of vested interests, to hold institutions accountable, and to increase willingness to pay the costs of protection. Local participation in setting - and implementing environmental policies and investments will yield high returns.

2.4.3. The Costs of a Better Environment

The costs of protecting and improving the environment are high in absolute terms, but their modest in comparison, with their benefits and with the potential gains from economic growth". Improving the environment for developing may make its necessary to raise investment rates in developing countries by 2 to 3 % of Gross Domestic Product (GDP) by the end of this decade. This would enable stabilization of soil conditions, increased protection of forests and natural habitats, improved air and water quality, a doubling of family planning expenditure, sharply improved school enrollment rates for girls and universal access to sanitation and clean water by 2030. The cost of addressing global atmospheric issues would be additional which the rich countries should largely bear. (6)

2.5. *Concluding Observations*

Development is a value-loaded expression. The socioeconomic objectives which development intends to promote include increase in per capita income and also environmental quality. There are obvious conflicts between the two objections. In the development-environment debate, development is usually treated as synonymous with economic growth. In fact, the debate is on the contents of development.

The choice between environment and development* is as difficult as a choice between 'Hen' and 'Egg'. We need no magnifying glasses to see how inextricably the poor and poverty are linked to the environment. Building environmentally secured world, one in which human needs and wants are met without destroying natural systems, requires a wholly new economic order. Protecting the environment and encouraging the economic growth must go hand-in-hand. The integration of environmental concerns into economic decision-making is a challenge facing by policymakers everywhere.

The imbalance that has been created in the concentration of economic growth in the industrialized countries and population growth in the developing countries is at the center of the current dilemma. Redressing this imbalance will be the key to the future security of our planet. This- will require fundamental changes in both our = economic behaviour and international relations.

In order to effectively integrate environment and development in the policies and practices of countries", it is necessary to formulate and implement integrated laws and regulations, which are based on sound social, ecological, economic and scientific principles.

The Indian Economy is now poised to become market-friendly. But it should not be environment-hostile. We can examine the most appropriate environmentally-sound development for India. Economic Growth at the national level and trade expansion and competitiveness at the international level should be turned to reduce our socio-economic inequality and environmental degradation.

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