
UNIT 3 APPROACHES TO THE STUDY OF SUSTAINABLE DEVELOPMENT

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3.1 INTRODUCTION

So far you have studied the concept of sustainable development and the various parameters that delineate it. It is an established fact that the world has been advancing in an unsustainable manner and most of our existing problems in society are directly linked to this approach of wealth accumulation rather than of a comprehensive and integrative development towards economic progress. Historically, economic development of nations was measured in terms of Gross Domestic Product (GDP) and Gross National Product (GNP). However, today, the overall development of a country is measured by Human Development Index (HDI). The HDI is computed from, for example:

- gross domestic production per capita, adjusted for local purchasing power
- life expectancy at birth
- adult literacy
- the number of persons enrolled in educational institutions

Therefore, development has economic, social, environmental and institutional aspects. Accordingly, the focus of sustainable development has also shifted from the purely ecological perspective to include economic and social sustainability. The application of these approaches would require interaction and adjustment with several spatial and temporal levels of society. On the spatial front there are needs and challenges for the individual, a local community like a family or a network and the wider extended community like the national, regional and the global networks. On the temporal front it may require an understanding of issues very close to individuals such as emotional linkages to certain geographical areas, occupational skills based on local resources, material artefacts appropriate to their life styles, patterns of interdependencies between communities and also between generations. These attributes provide conceptual and ethical justifications for survival and therefore of a sustainable development framework. The objectives of developmental policies are expected to combine and balance these different dimensions with the political and administrative capability of the state. Approaches to the study of sustainable development are to be understood in this context. In this unit, we discuss the different approaches taken by the national and international fora towards the problem of achieving sustainable development.

Objectives

After studying this unit, you should be able to:

- discuss the different approaches being taken towards achieving sustainable development; and
- analyse the reasons for the failures of some of the earlier approaches.

3.2 POSITIVIST APPROACH

Conventional and classic economic development literature grossly ignores the demands of sustainable development. The early founders of quantitative economics argued in favour of the monetary approaches, known as the positivist approach. This approach centres on the physical betterment of society through market calculations or calculating advancement in terms of monetary gains. It leaves aside the issues of distribution and justice; even the environmental assets are valued in purely monetary terms. However, as explained earlier, many environmental assets are intangibles and they go unaccounted for in that approach. Since what is unaccounted for tends to be used irresponsibly, these environmental resources get ruthlessly destroyed by industrialising states.

Positivist approach promotes freedom of accumulation and is based primarily on making the community as a whole as opulent as possible, irrespective of distributional disparities and irrespective of what that wealth does to human lives. It is, of course, true that being affluent can be among the most important contributory factors in generating a feeling of well-being, and this approach to economic progress certainly cannot be criticised as being irrelevant to achieve a better living. However, as it neglects crucial factors such as public care and social organisation for the welfare of deprived and weaker sections, the approach is extremely narrow and defective. Its overall thrust on wealth maximisation irrespective of distribution allows accumulation of wealth and its appropriation by a few (rich becoming richer) and marginalises the not so rich or weak individuals who would have, given the social and institutional support and opportunities to work, done very well.

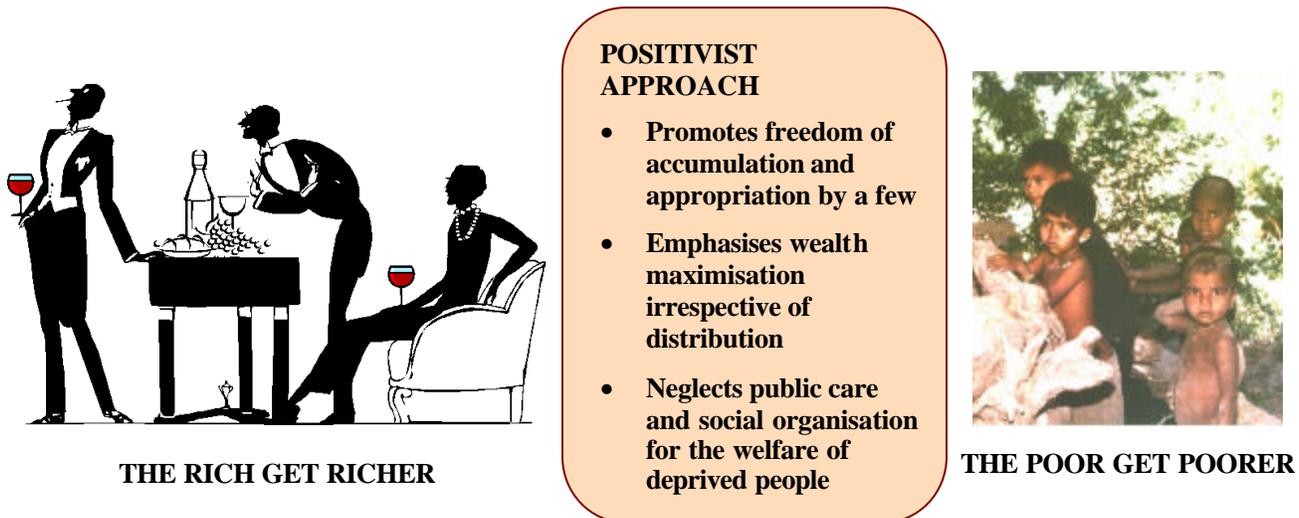


Fig.3.1: Some features of the positivist approach and its possible consequences

The preoccupation with commodity production, opulence and financial success can be traced in professional economics through several centuries, involving many leading economists as well as businessmen and bureaucrats, who have preferred to concentrate more on the characteristics of overall material success than on the deprivation and development of human lives. Indeed, the dominant contemporary concern on such variables as per-capita gross national product or national wealth is a continuation of the old opulence-oriented approach. It is these Gross National Product (GNP) and Gross Domestic Product (GDP) based approaches which have been opposed and argued to be misleading by approaches that shift the focus to human development. Alternate indicators of the real prosperity of the world have been proposed in the Human Development Report (HDR, 1990) of United Nations Development Programme (UNDP).

Human Development Approaches: The two traditions of focusing respectively on (1) human development, and (2) overall wealth and opulence can be seen as differing, directly or indirectly, in two distinct respects. The first concerns divergences in the ultimate objectives, and the second relates to differences in the effectiveness of distinct instruments advocated for achieving the objectives.

Human development approach has conformed broadly to the line of reasoning enunciated by Aristotle more than two millennia ago that 'wealth is evidently not the good we are seeking, for it is merely useful and for the sake of something else'.

How can we possibly give priority to the means of living, which is what treasures and wealth are, over the ends of good and free human lives? While much of economic and financial writing proceeds as if there is nothing beyond opulence with which we need be concerned, the really interesting debates must relate to the instrumental effectiveness of overall wealth and opulence in promoting those things for which wealth and opulence are sought.

This takes us to the second difference. Some have taken the view that while opulence is not to be valued at all for its own sake, it still is the most important instrument in promoting the more basic objectives, even the Aristotelian objective of rich and fulfilling lives. In other words, opulence is an effective instrument rather than the goal. To take a prominent example, William Arthur Lewis, one of the leading modern development economists, did not much doubt that the appropriate objective to pursue growth is increasing 'the range of human choice' and acknowledges the causal role of many factors in advancing the freedom to choose. Nevertheless he concentrated specifically on 'the growth of output per head', because it 'gives man greater control over his environment, and thereby increases his freedom'. Indeed, the assertion in his classic book: 'Our subject matter is growth and not distribution' reflects his faith in the instrumental efficacy of total growth.

This approach, however, has proved to be quite disputable in terms of the experiences observed in the actual world. Many countries have grown fast without a commensurate impact on living conditions, and more importantly, some countries have achieved high quality of life despite relatively moderate growth of GNP or GDP per head.

It is certainly true that the higher the average income of a country, the more likely it is, given other things, that it will tend to have a higher average life expectancy, lower infant and child mortality rates, higher literacy, and in fact, a higher value of the HDI proposed in the Human Development Report of UNDP. A number of countries conform to this pattern. However, many countries, such as Sri Lanka, China, Jamaica, Costa Rica, and the state of Kerala in India, have HDIs that are much higher than what would be expected on the basis of their GNP. Therefore, rather than treating GDP per se as an instrument for achieving human development, what is important is to look for the route through which economic growth most effectively contributes to human development and to increased GNP.

Economic growth means not only an increase in private incomes, but also generating resources that can be marshalled to improve social services (such as public health care, epidemiological protection, basic education, safe drinking water, etc.). In some cases such marshalling is effectively done, while in other cases, the fruits of economic growth are put to little use of this kind. This can make a big difference to the outcome in terms of the expansion of basic human capabilities. Similarly, while the expansion of private income certainly is of instrumental importance in enhancing basic capabilities, the effectiveness and sustainability of that impact depends much on the distribution of the newly generated incomes.

In particular, a much larger and more sustainable impact is expected to occur if the rise in average GNP per head is accompanied by a sharp reduction in the poverty of the worst off people, rather than going in other directions. To what extent this will happen depends on a variety of economic and social circumstances related to the

employment-intensive nature of techniques of production, the sharing of education and skills across the population, the success of land reforms and the sharing of rural resources, and so on. Here again the experiences of different countries and of different policy regimes have been quite divergent.

There is considerable evidence that the statistical correlation between GNP per head and human development tends to work through the impact of GNP expansion on higher public expenditure and lower poverty. The UNDP reports indicate that the connections are seriously contingent, and much depends on how the fruits of economic growth are shared (in particular what the poor get) and how far the additional resources are used to support public services (for example, public health services, which are particularly crucial in influencing life expectancy).

Thus the opulence-oriented view of progress has little intrinsic merit and has a conditionally important instrumental role, and that conditionality relates specifically to the features on which the human development focuses. Thus, there is no basic flaw in regarding economic growth and GNP to be very important, but this is an insufficient indicator of human development. Its biggest impact comes through the expanded ability to undertake public action to promote human development and resource management in an equitable manner. In recognising the importance of economic growth as a means for human development, policies have to focus upon the multidimensionality of the problem and challenges brought by a resource scarce economy. In brief, the human development approach concentrates on the capability of all humans to lead worthwhile lives as the object of importance that people today and in the future would value.

You may like to reflect on these ideas before studying further.

SAQ 1

What are the indicators of development in the positivist approach and the human development approach?

Let us now turn our attention to the multi-dimensional approach to sustainable development.

3.3 MULTI-DIMENSIONAL APPROACH

Multidimensional approaches deal with the heterogeneous environmental and development issues and means to calculate the intangibles in nature without the common denominator like money. The approach recognises that any development which disturbs a local ecosystem can adversely impact regions across geographical and political boundaries. The policy orientation in multidimensional approach is that of '*level transfer mechanism*' to check the environmental impact and anticipate measures for preventing any socio-economic crisis. This approach is an attractive operational tool for studying Environmentally Sound and Sustainable Development (ESSD). The level transfer mechanism involves the following basic associated approaches that have to be taken into consideration to assess the impact over society and natural resources.

- 1. Studying the economic bottom-line:** This critically examines the conventional 'profit' bottom line approach of enterprise initiatives for example, business (industry and commerce), industrial agriculture (agribusiness) and aquaculture. To avoid unconstrained exploitation of environmental resources calls for example, for 'green' development of land cleared for development.
- 2. Corporate environmental responsibility:** This is a demonstration of environmental awareness in corporate partnerships. This is to develop eco-efficiency, environmental management through regulatory mechanism to be

complied by all corporates all over the world such as ISO14000, environmental impact analysis (EIA), studying ecological footprints etc.

- 3 **Producer responsibility:** Besides promoting amongst producers environmental monitoring and industrial ecology, this may inspire environmental assessment, bioregionalism, product stewardship and accountability structures.
- 4 **Precautionary principle:** This subscribes to clean-up technologies, urban environment renewal, non-polluting technologies, carbon credits and land management.

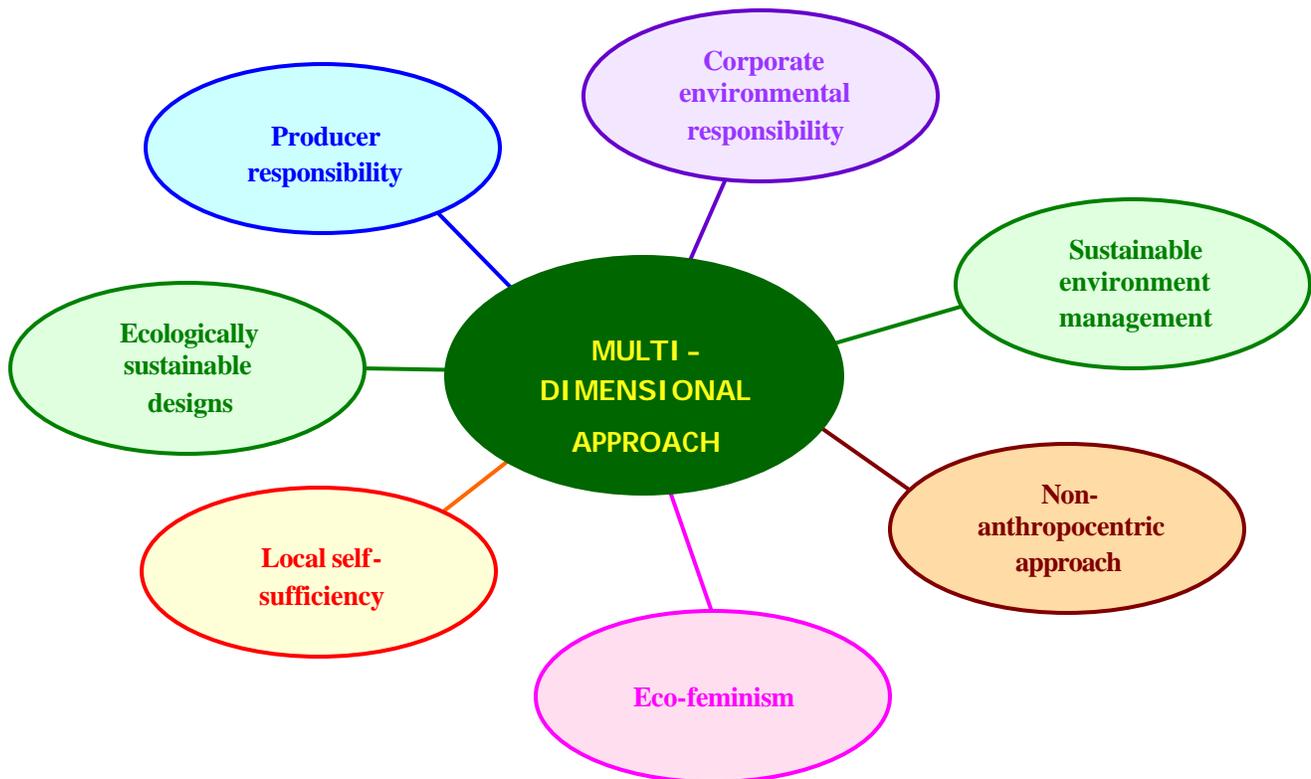


Fig.3.2: Various aspects of the multi-dimensional approach

- 5 **Eco-design:** This approach initiates ecologically sustainable designs and techniques such as eco-building, bio-machines, green machines, bio-fuels, intermediate technology, eco-preneur, organic agriculture and sustainable lifestyles based upon indigenous knowledge.
- 6 **Gandhian gram swarajya:** It is the doctrine of local self-sufficiency propagated by Mahatma Gandhi for economic and cultural awakening of Indian villages. This is the approach towards environmental stewardship and conserving nature by using resources available in the local area.
- 7 **Deep ecology:** This approach was initiated by the Norwegian philosopher Arne Naess in 1972. It is anti-anthropocentric that is, it believes that humans are not at the centre of everything in nature but are merely a part of it. It believes in population reduction, 'no-go' wilderness reserves, sacred groves, old forest preservation.
- 8 **Eco-feminism:** It views the patriarchal structure of society and the miseries of women as fallout of the so called 'anthropocentric' approaches to nature such as the positivist GNP led growth pattern, mass production through machines that exclude women and their requirements.

3.4 ECO-SYSTEM APPROACH

Ecosystem or ‘an ecological system’ is the microcosmic autonomously functioning full unit of nature. In the absence of outside interference these units are continuously interacting with other neighbouring units in the same habitat. Due to these interactions they are growing into stable and sturdier functional communities which are finally replaced by or evolve into developed ecosystems called a *Climax community*. This community nurtures and carries a large number of other communities of plants and animals which grow and evolve in interdependence and diversity. This change is called succession.

It takes millions of years for a stable community to develop but the rapid pace of mechanised development and extensive use of chemicals destroy or wipe off full ecosystems very rapidly. The pace of destruction is much faster than the pace of succession. The result is that the conservation efforts for a particular species without the conservation of the whole ecosystem within which the species survives do not yield desired results. This approach aspires to preserve the whole ecosystem and speaks of the ecosystem viability in policy and development programmes.

Natural systems have wide spatial connections. Activities over land and water and even air, spill over their effects to other regions and as a result of it ecosystem growth in the entire region gets affected. The national and international policies have to encounter these spill-over effects so that the whole system is protected. In 1986-87 the world wide bleaching of corals had been due to the global warming and also due to chlorofluoro carbons (CFCs) production mainly by the rich countries. The preservation of mangroves in the Indus delta at the Indo-Pak boundary, fisheries, river pollution and oil spill in oceans are other examples demanding an ecosystem concern in policies.

In summary, the ecosystem approach is a method of sustaining four basic characteristics of nature:

1. spatial heterogeneity,
2. resilience,
3. dynamic vulnerability, and
4. organised connections between the sources and the sinks.

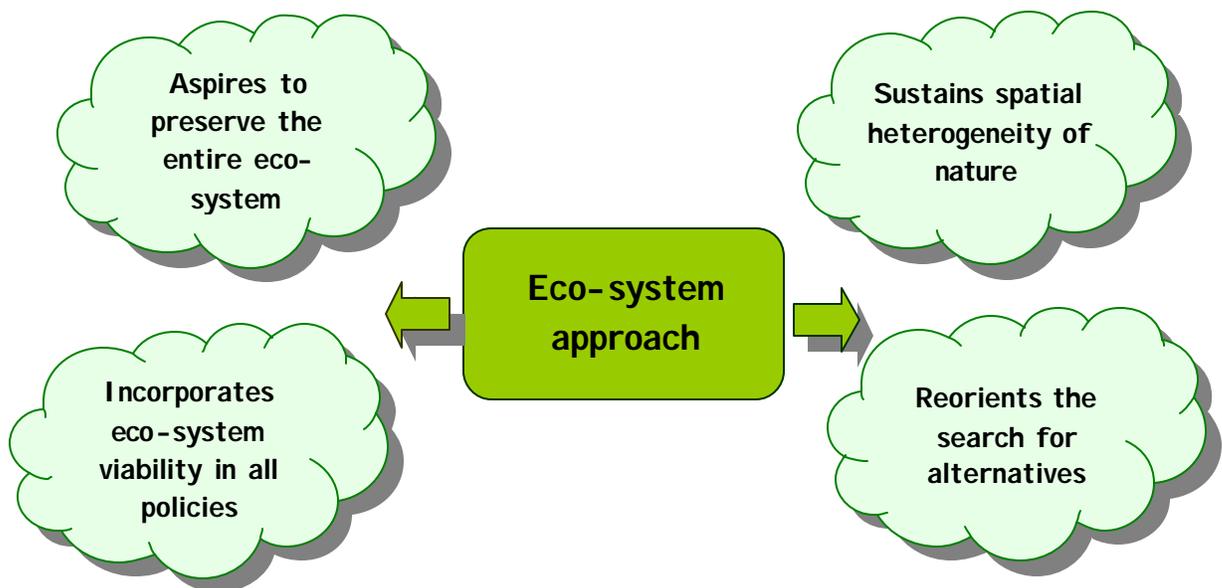


Fig. 3.3: Some characteristics of the eco-system approach

The biggest challenge to this approach is the political constraints to an internationally coordinated action. Nations are so preoccupied with their narrow interests and are so secretive of their measures that they fail to look at the natural system as one comprehensive and complete community. This approach calls for institutions to acquire four basic characteristics called the 4 Ds: *diversity, dynamism, decentralisation and decisiveness*.

Peter Omara Ojunga has mentioned four actions for applying the ecosystem approach:

- I. An ecosystem inventory to determine community zones.
- II. Identification of natural processes which lead to stability.
- III. An analysis of inventory data to evaluate the functional significance of the ecosystem components.
- IV. Recommendation of the alternative uses based upon their functional significance.

Policies that facilitate action on the above four basic requirements are referred to as sustainable development policies since they protect ecosystems and reorient the search for alternatives.

SAQ 2

What do you understand by the ecosystem approach? How is it different from the human development approach?

So far we have given you a bird's eye view of the dominant perspectives on sustainable development. In the last section of this unit we acquaint you with the views of indigenous communities on this issue.

3.5 INDIGENOUS VIEWS

Traditionally, the rights of communities over their habitat and ecological resources derived from history, cultural traditions and conventions have provided them the means of livelihood. It is important to note that many indigenous communities and aboriginal cultures have long held that any decision taken by the community must be considered in the light of its potential impact on seven generations. It is the same sentiment now being expressed in the Brundtland definition of sustainable development.

Dominant development approaches based industrialised growth have, however, weakened and even destroyed the livelihood of several communities since their control over habitats and resources as well as their indigenous wisdom has remained ignored and unrecognised in these approaches. These communities have been removed from their forests and wetlands under the plea of economic advancement. Since the HDR of 1994 has reiterated that '*protection of all life opportunities of future generations as well as present generations and respecting the natural systems on which all life depends*', the following two approaches serve the concerns of the vulnerable communities:

- **The Livelihoods Approach**

This approach has been adopted by a number of agencies, Non Governmental Organisations (NGOs) and governments, including UNDP, Cooperative for Assistance and Relief Everywhere (CARE) and Department for International Development (DFID). The livelihoods approach puts people at the centre of development both at the macro and micro levels. This focus on people is equally important at macro policy levels (for example achievement of objectives such as poverty reduction, economic reform or environment protection) as it is at the

micro or community level (for example eco recognition of community rights, indigenous knowledge etc). In this approach people, rather than the resources they use or the governments that serve them, are given the priority.

Adherence to this principle may well translate into providing support to sustainable resource management or good environmental governance, but it is the underlying motivation of supporting people's livelihoods that should determine the shape of the support and provide the basis for evaluating its success. In a sustainability paradigm the livelihood options are most favourably available when environmental resources are better managed from the distributional aspect. The livelihoods approach requires identification of the most pressing constraints faced by people as also promising opportunities open to people regardless of where these may occur (i.e. in which sector, geographical space or level, from the local through to the international). It builds upon people's own definitions and understanding of constraints and opportunities and, where feasible, it supports people to overcome constraints and realise the opportunities.

The livelihoods approach enables various factors which constrain or provide opportunities to be organised and their inter-relationships are brought out. It is not intended to be an exact model of the way the world is, nor does it mean to suggest that people as stakeholders themselves have to necessarily adopt a systemic approach to problem solving. Rather, it aspires to provide a way of thinking about livelihoods that is manageable and that helps improve development effectiveness.

- **Poverty Reduction Strategies (PRS)**

There is a definite relationship between poverty, environment and sustainable development. Sustainable development aims at reducing and then eradicating poverty completely. Poverty reduction is sometimes (wrongly) placed in a short term context, particularly when there is considerable pressure for a PRS to produce quick results. The short-term attention to poverty reduction, for example, through debt relief should evolve into longer-term poverty reduction strategies that lead to sustainable development. Economic programmes within sectors would then identify trade-offs between poverty and sustainable development. At present issues around sustainable development and the environment are often ignored in PRSs. So in developing future PRSs, and other strategies, it is vital to grasp the opportunity to ensure that sustainable development principles are incorporated, along with appropriate indicators.

The conventional PRS overuses resources to catch up with the industrialised nations in economic progress. The economic targets are fixed and GNP made the only indicator of progress. It had avoided or overlooked the loss of ecosystems, estrangement of biotic and abiotic communities and extinction of species. In the process nations lose some of the most useful genetic element in plants and animal species. This in turn adds to the cost of biotechnology research for which the same genes are imported from developed countries at huge costs with patent restrictions.

It is, therefore, important to take stock of environmental strategies that already exist, for example the action plans produced under the aegis of the desertification convention or national environmental action plans, and to identify gaps. Stakeholder consultation in developing the PRS should include civil society and organisations with environmental interests and should be broadened in scope to identify how environmental activities can assist poverty reduction for example by including environmental indicators in the monitoring of poverty.

The PRS framework focuses on identifying, in a participatory manner, the poverty reduction outcomes a country wishes to achieve and the key public actions or policy changes, institutional reforms and programmes that are required

to achieve these desired outcomes. This framework is based on the experience of many countries, on cross-country analytical work and on current best practice in development assistance, as well as consultations with other international organisations and NGO representatives.

PRS have emerged out of concern at the global trend of increasing poverty coupled with enhanced debt relief and a desire on the part of donors/NGOs to strengthen the impact of their programmes on reducing poverty. This has also been the basis for International Monetary Fund/World Bank debt relief and concessional assistance. A framework for action has been developed by these international agencies centred on the preparation of poverty reduction strategies by countries, which would then be a basis for external assistance and debt relief.

The key principles underlying the framework are that poverty reduction strategies should be country-driven and prepared by national governments in a participatory mode with the civil society and not by external international donors or trans-national companies. PRSs should have the following features oriented to achieving concrete results in terms of poverty reduction (a) comprehensive in-looking at cross-sectoral determinants of poverty outcomes, (b) informed by a long-term perspective, (c) providing the context for action by various development partners and (d) should be intended to prevent alienation of communities from sustainable modes of life.

3.6 SUMMARY

- ‘Environmentally Sound and Sustainable Development’ has been the outcome of the Earth Summit and has now become an indispensable part of all economic and social fora. Different national and international actors have been approaching the problem differently and the search for an approach which achieves the purpose of environmental conservation and social well being without in any way slowing the process of economic progress in terms of GNP and GDP is the major challenge for policy makers. The opulence oriented **positivist** approaches emphasised the growth in terms of GNP/GDP alone and were criticised for having neglected the human factor. It was revealed in UNDP cross country studies that countries with high GNP may not necessarily have high human development also. Although GNP/GDP orientation helps a nation to fight poverty but its success depends upon how the national policies distribute money and services to people. Good governance of a country implies ability to effectively apply wealth created from higher GDP towards human concerns thereby protecting both the environment and the people in a sustainable manner. In 1990, since the first HDR, the team of UNDP experts has prepared the HDI which clearly exposes the myth of opulence based approaches.
- Since conservation of environment and the long term prosperity of people involve many different agencies and also methodologies, the **multi-dimensional** approach tries to answer the key principles of sustainable development. The first priority is its people-centredness.
- Sustainability has a comprehensive and integrated paradigm and thus requires a high level of political commitment and an influential lead institution based on national political priorities. The policies designed to achieve this paradigm have to be process and outcome oriented and nationally owned. Its nature has to be participatory incorporating monitoring, learning and improvement. The application of this paradigm has overlapping boundaries of several other established approaches.
- The **ecosystem approach** treats environmental resource as a full functional unit of economy. Thus the segregated approaches being applied to achieve sustainability has come under attack by this approach. It suggests that objectives

of sustainability are best and most effectively achieved if the whole system rather than its segregated parts or different species are made policy objects. The whole system is an ecological unit and works as a self sustaining economy at the grassroots level.

3.7 TERMINAL QUESTIONS

1. What are the different approaches for achieving sustainable development?
2. How do GNP/GDP based approaches fail to deliver the required objectives of development policies?
3. Discuss the community-oriented approach to sustainable development with examples from your own context.

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