

Sustainable Development: The need of hour

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Abstract

India is one of the fastest growing economies in the world. But there is an inverse relationship between economic developments and the environment. There have been improvements in economic growth, foreign exchange, IT revolution, export growth, and so on, inequality in income distribution has been growing simultaneously, with no decrease in dependent population in the agricultural sector, low quality employment growth, concentration of poverty in certain groups and region; and inadequate development of women and children. The modern concept of sustainable development is derived from “Brundtland Report” in 1987. As the concept sustainable development developed, it has shifted to focus more on economic development, social development and environmental protection for future generation. It is a process that envisions a desirable future state for human societies in which living conditions and resource use continue to meet human needs without undermining the “Integrity, stability and beauty of natural biotic system.” The present paper is an attempt to analyze sustainable development, growing threats to sustainable development and possible measures to maintain sustainability.

Keywords: development, growth, sustainability, environment and technology

Introduction

Sustainable development is a multi-dimensional and multi-disciplinary concept. Sustainable development refers to that process of economic development which meets the needs of present generation without compromising the ability of future generation to meet their needs. There are generally three aspects of sustainable development

1. **Economic:** An economically sustainable system must be able to produce goods and services on a continuing basis to maintainable levels of govt. and external debts and to avoid sectoral balance which damage agricultural and industrial production.
2. **Environmental:** An environmentally, sustainable system must maintain a stable resource base, avoiding over exploitation of renewable resource system or environmental sink function and depleting non renewable resources and to the extent that investment is made in adequate substitutes. This includes maintenance of bio diversity, atmospheric stability and other ecosystem functions not ordinarily classed as economic resources.
3. **Social:** A socially, sustainable system must achieve equity, adequate provision of social services including health, education, gender equity and political accountability and participation. The concept of sustainable development has a special relevance in the context of environment in general and exploitation, allocation and utilization of natural or environmental resources in particular. The term was brought into common use by the perspectives of sustainability are Neo-classical economic equilibrium, evolutionary ecology, socio-cultural and human ecology. Likewise, the concept is very closely concerned with physical or natural sciences like Environmental Sciences, Botany, Engineering, Zoology, Biology Geography, Economics, and Sociology and so on. It is very difficult and rather impossible take into consideration each and every perspective of the concept sustainable development.

The term sustainable development was first used by the ‘World Conservation strategy’ presented by the international union for the conservation of nature and natural resources in 1980. India is one of the fastest growing economies in the world. But there is an inverse relationship between economic developments and the environment. Indian economy has been undertaking the planned efforts to speed up its economic development. Besides this, economic reforms programme popularly known as New Economic Policy (NEP) being implemented in our country since 1991 had the important goal to promote the rate of economic growth. This necessitates assessing the state of sustainable development in India and the efforts of the state of the Indian economy in that direction. We constitute around 17% of the world’s population, but account for about 35% of the poor and 40% of the illiterates in the world. While there have been improvements in economic growth, foreign exchange, IT revolution, export growth, and so on, inequality in income distribution has been growing simultaneously, with no decrease in dependent population in the agricultural sector low quality employment growth, concentration of poverty in certain groups (SC / ST), occupation (agricultural and casual labour), and region; and inadequate development of women and children. All the above factors have resulted in the widening of economic and social disparity, which is a threat to sustainable development. Sustainable development focuses on local people through public involvement and development of local solutions to environmental and development problems. Achievement of equity is attained through the fairest possible sharing of limited resources among contemporaries and between our generation and that of our descendants. The term ‘Sustainable Development’ is a broad concept generations to meet their own needs”. It recognizes the interdependence of environmental, social and economic systems. It promotes equality and justice through people empowerment. Success is measured not simply by the profit generated, but by the triple bottom line of economic prosperity, environmental quality and

corporate adhering clouding reducing social responsibility. Effective management of resources requires participation by all stakeholders. At the local level, strengthening democratic institutions generally leads to better and more sustained management of natural resources. To enhance effectiveness of people's participation in local governance, committees comprising both elected and executive members of local bodies and representatives of community groups, must be formed. Appropriate capacity building would enable them to undertake local development activities according to community priorities, monitor project implementation and manage community assets. Where the conditions for such community empowerment have already been created, as in India through the 73rd and 74th amendments of its constitution, effective implementation the provisions should be ensured.

Aims of sustainable development

Some important aims of sustainable development are as follows:

- a) Clean hygienic living and working conditions
- b) Safety against industrial hazards
- c) Encourage afforestation
- d) Production of environmental friendly products
- e) Population stabilization
- f) Conservation of bio-diversity
- g) Recycling of wastes of residues
- h) Use of organic fertilizers
- i) Implementation of environmental protection laws
- j) Reduce risks and vulnerability of farming communities
- k) Weather forecasting to reduce natural hazards
- l) Incorporate institutional development and new technologies
- m) Diversify cropping systems for economic and environmental resilience.
- n) Establish projects and policies on appropriate levels -- community, national, regional, global – generally with corresponding financing mechanisms

Challenges of sustainable development

The following are the main challenges to sustainable development:

1. Population Growth

With a total population of 1210.2 million in 2011 census, India is second most populated country of the world but it covers only 2.4 percent of land area of world. Acc. to United Nations Population Report in 2013, India, s population will be about 1448 million in 2028. More people means less forest, water, soil and other natural resources but more waste, pollution and greenhouse gases (Clarke,1972). Population growth cause land degradation, habitat destruction and loss of bio- diversity. Changing consumption pattern has led to rising demand for energy causing air pollution, climate change and global warming (Trewartha, 1969)^[6].

2. Urbanization

In the first 50 years (1900-51) of 20th century, total urban population increased about two & half times but in next 50 years (1951-2000), total urban population has increased five times in India. India's urban population is expected to go up from 377 million in 2001 to about 600 million in 2031, (UN

Urbanization Prospects 2011). Due to limited resource, land in rural areas, the employment seekers started migrating to the major cities like Bombay, Delhi, Chennai, Bangalore, Hyderabad etc(Khullar,2014)^[4] The spurt in urban population has put tremendous pressure on available public utilities and facilities in the cities.

3. Change in consumption pattern

The number of registered motor vehicles in India is an indicator of consumption increase. The total number of registered vehicles in India has increased from 3 million in 1950-51 to 105 million in 2011-12. It is estimated that population of India will be about 1.3 billion and there will be about 57 million vehicles in 2020. More vehicles are producing more air pollution, fuel consumption, traffic jams and demand for road construction at the cost of agricultural land Increase in vehicles cause many environmental problems.

4. Intensifying demand for energy

The consumption of fuels like coal, lignite, oil and nuclear are causing many serious problems. The production of coal and lignite has increased from 32.2 million tons in 1950-51 to 313.70 million tons in 2011-12 with an increase of 10.74 times. The production of petroleum products has increased from 3.3 million tons in 1950-51 to 105.6 million tons in 2011-12. The burning of fossil fuels has led to many ecological problems and associated with health problems like cancer, respiratory diseases.

5. Decrease of per capita forest land:

Population growth has resulted a downward trend in per capita availability of forest and agricultural land. Since 1950, per capita forest availability has declined from 0.124 hectares in 1960 to 0.071 hectares in 1998-99. Despite govt. efforts, joint forest management, cooperative movements and other efforts, small results are observed.

6. Ground water resources and water pollution

Out of total groundwater, about 84 % is used for agricultural and live stokes and only 16 % used for domestic consumption, industries and power generation. The water is polluting by three ways i. s. domestic sewage, industrial effluents and run-off activities. The increasing water pollution is causing many diseases like cholera, diarrhea, hepatitis, dysentery, leprosy etc.

7. Solid waste

Another big problem in sustainable development is the large amount of solid wastes. In a city like Bangaluru, the solid waste generated daily is estimated to be around 5000 tons. Dumping this sort of waste has created serious problems of pollution, ill-health and stink to inhabitants even a kilometer away. Rivers and canals act as garbage dumps. The electronic waste such as unserviceable cell phones, their accessories, other electronic goods, are being thrown away contain toxic chemicals like mercury and other heavy metals and compounds (Rao, 2000)^[5]

8. Air Pollution

India is world's largest consumer of fuel wood, agricultural waste and biomass for energy purpose which release over 165 million tons of combustion products into air yearly. In urban areas, industrial complexes emit many harmful gases like

carbon dioxide, nitrogen oxide, sulphur dioxide and they make the urban air very pollute (Davis, 1965) [3]. The annual crop burning practice in northwest and north India is major source of air pollution.

9. Loss of bio diversity

Bio diversity is the totality of genes, species and eco- systems in a region. India is one of the 17 mega biodiversity countries of the world. With only 2.4% of world's land area, India accounts for 7-8% of recorded species of the world (Singh, 2012). There are 91200 species of animals and 45000 species of plants in its ten bio -geographical regions (Ministry of Environment and Forests, 2009). The requirement of space, food and raw material for human settlements has been the main cause of decline in bio diversity.

10. Deforestation

Deforestation in India is the widespread destruction of major forests. India ranked 10th in the amount of forest loss where world annual deforestation is estimated as 13.7 million hectares in a year. India is losing about 1.5 million hectares of forest cover each year. At present, the per capita forest land in India is 0.10 hectare compared to world average of 1 hectare. Large scale deforestation has been done for fuel, fodder, valley projects etc.

Steps to achieve sustainable development

Sustainable development is the need of the present time not only for survival of mankind but also for its future prediction. To achieve the goal of sustainable development in India, following suggestions will be useful.

1. Sustainable development should be a major and important objective of economic plans.
2. Sustainable development should be given top priority in the agenda of India's economic policy.
3. Due efforts should be made to achieve sustainable development of secondary sector in general and manufacturing sector in particular.
4. Adopt a suitable investment strategy to provide real investment and not financial investment in the economy to facilitate development of present as well as future generations.
5. Expenditure on environment protection must be given due importance in the budgets of all layers of governments to materialize the objective of Sustainable development.
6. Control the population growth and urbanization through policy initiatives to health and medical facilities and nutritional diet to deprived classes women and children.
7. Sustainable development is achieved through optimizing gains from several variables, rather than maximizing those from a single one.
8. Evolve participatory mechanisms of governance involving citizen groups and local authorities to avoid conflicts and insecurity.
9. Efforts should be undertaken to tackle the problem of poverty, which is an important hindrance in achieving sustainable development.
10. To provide educational opportunities to all, to work together.
11. There should be a partnership between govt. agencies and different institutions in civil society, such as NGOs, corporate bodies, academic and research institutions, trade

unions, etc, for implementation for sustainable development.

Conclusion

Sustainable development has become an integrating concept embracing economic, social and environmental issues. It is implied to regulate the demands of man in such a manner that the ability of the same environment to sustain his development will remain un- repaired. It does not preclude the use of exhaustible natural resources but requires that any use be appropriately offset. To achieve sustainable development, it is necessary to consider various aspects such as regional factors, social and economic restraints long- term and short- term objectives in order to ensure the formulation of a feasible policy for sustainable development.

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