



Sustainable Development In Economic Perspective: A Case Study Of India

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Introduction:

Development plays an important role in economic development today. 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.

All of us are staying in the era of Sustainable development than the previous concept of Economic development. The concept 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. Hence, it is assumed that the concept of Sustainable development is broader in scope and significance comparing Economic development. This concept of development has been originated in the 20th century. The term was brought into common use by the World Commission on Environment and Development in its report "Our Common Future."

Sustainable development is a multi-dimensional and multi-disciplinary concept. According to Van Den Bergh (1996), the major theoretical perspectives of sustainability are Neo-classical economic equilibrium, evolutionary ecology, physico 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 to take into consideration each and every perspective of the concept sustainable development. Hence, the present paper takes into consideration only economic perspective of the concept sustainable development in general, and environmental economics approach in particular.

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) that is being

implemented in our country since 1991 had the important goal of, to promote the rate of economic growth. This necessitates assessing the state of sustainable development in Indian and the efforts of the state of the Indian economy in that direction. It is against this overall backdrop, the present paper endeavor to examine the empirical evidences of sustainable development with reference to India especially in the post reform period.

Objectives:

Following are main objectives of the present study.

1. To study the concept of sustainable development.
2. To examine economic dimension of sustainable development in general, and Environment economics perspective in particulars.
3. To review the indicators of sustainable development.
4. To analyze sustainable development empirically in the context of India, especially in the post reform period.
5. To identify the state of sustainable development with reference to India, and suggest measures to materialize the desirable state of sustainable development.

Hypothesis:

The present study attempts to test the following hypothesis.

"Sustainable development is the more important and broader concept of development. Hence, attempts should be made to achieve the sustainable development with Economic Development, which will promote social welfare as well as it will help in maintaining environmental balance."

Data Base & Research Methodology:

The present study is an attempt to examine the state of sustainable development in India, and the efforts of our country in that direction. The concept of sustainable development is more important in the context of the environment than the economic growth or development, because of inverse or negative relationship between them. For this the present study covers the period of eight years 2000-01 to 2009-10.

The present paper mainly relies on the secondary data collected from the Government of India publications like Economic Survey and Reserve Bank of India publications like Annual Report. Report on Currency and Finance. This study has taken into consideration criteria or parameters sustainable development for its quantification. The collected was classified and tabulated in the context of objectives of the study and parameters of sustainable development. To highlight the trends and inferences regarding sustainable development with reference to India, the collected data was processed by using an appropriate statistical technique like Compound Growth Rate (CGR), Ratio Analysis; average, with the help of computer software packages like Excel and SPSS.

Concept of Sustainable Development in Economic Perspective:

The concept of sustainable development is a recently developed concept of development. This concept of development was propounded in the 20th century. It is multi perspective and a multi-dimensional and interdisciplinary concept. According to Van Den Bergh (1996)' the theoretical perspectives of sustainable consist of Neo-classical economic equilibrium, Evolutionary, ecology physico, economic, socio-cultural and Human ecology. Likewise, sustainable development is an interdisciplinary concept, which is concerned with physical natural sciences and social sciences like Environmental Sciences, Botany, Zoology, Biology, Engineering, Geography, and Sociology Economics and so on. Hence, the exclusive symptoms of unsustainability include greenhouse effect and climate Change, ozone depletion, Atmospheric acidification. Toxic pollution, Biological species extinction, Deforestation, Land degradation and desertification, Depletion of non-renewable resources like fossil and minerals, urban air pollution and solid wastes.

The concept of sustainable development in economic perspective analyses the economic or environmental economic aspect. As the present paper focuses on economic dimension of sustainable development, it is worthwhile to take into consideration the meaning of this term having that perspective only. The meaning of the term sustainable development in economic perspective can better understand with the help of its following important definitions.

i. John Pezzey:

"Our standard definition of Sustainable development will be non-declining per capita utility--because of its evident appeal as a criterion for inter-governmental equity"

ii. The Brundtland Report:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concepts of "needs" in particular the essential needs of the world's poor, to which overriding priority should be given, and the idea of limitations imposed by the state of technology and social organization on the environments ability to meet present and future needs"³

iii. Robert Allen (How to save the world):

"Sustainable development-development that is likely to achieve lasting satisfaction of human needs and improvement of the quality of human life"

iv. David Pearce, Edward Bar bier, Anil Markandya:

"We summarize the necessary conditions for sustainable development as constancy of the natural capital stock. More strictly the requirements as for non-negative change in the stock of natural resources such as soil and soil quality, ground surface waters and their quality, land biomass and the waste assimilations capacity of receiving environment" There are three basic components of sustainable development: economic social and the environment. The economic component of sustainability requires that societies pursue growth

paths that generate optional flow of income while maintaining their stock of manmade capital, human capital and natural capital. Also requires internalizing all costs including the environmental costs associated with production and consumption. There basic goals of an economic system comprise of increasing production of goods and services, satisfying basic needs or reducing poverty, improving equity.⁴

The social dimension of sustainable development is built on the twin principles of justice and equity. For a development path to be sustainable over long period of time, wealth resources and opportunity should be equitably shared. All citizens should have access to minimum standards of security, human rights and social benefits such as food, health, education, shelter and opportunities of self-development. Social equity implies equal opportunities to all for education and for making productive contribution resource use, efficient sink function and maintenance of stock natural capital.⁵

Indicators of Sustainable Development:

Sustainable development is a modern broader and more important concept of development. Hence its measurement is so much important for practical applicability and significance. Hence, indicators of sustainable development have been developed at as well as individual level.

The United Nations Department for Policy coordination and sustainable development (UNDP/PCSD) has provided the list of indicators for economic aspects of sustainable development in 1997. It consists of : i)GDP per capita. ii) Net Investment Share in GDP. iii) sum of exports and imports as a percentage of GDP. iv) Environmentally adjusted net domestic product (EDP) v) share of manufactured goods in total merchandise exports vi)annual energy consumption vii)share of natural resource intensive industries in manufacturing value added. viii)proven mineral reserves. ix) prove fossil fuel energy reserves x) lifetime of proven energy reserves xii) intensity of material use. xiii) Share of manufacturing value added in GDP xiv)share of consumption of renewable energy resources. xv) Net resource transfer/GNP. xvi) Total ODA given or received as a percentage of GNP dept service /export xvii) Environmental protection expenditure as a percentage of GDP xviii) Amount of new or additional funding for SD. xix) Capital goods imports

Besides these, Prof Barthwal of IIT, Kanpur has suggested some important indicators of sustainable development such as GDP growth rate, population stability Human Resource Development Index, Clean Air Index, Energy Intensity, Renewable Energy proportion, material Intensity, Water Use Soil degradation, forest coverage, Recycling proportions, Transport intensity proportion of urban population, access to sewage and water facilities, government allocation for environmental protection, efficacy of policy tools, awareness of the people etc.

Herman Daly has given a few principle of Sustainable development. There are to limit the human scale to level, which is within the carrying capacity of the environment efficiency

increasing technology rather than output increasing, harvesting rate of renewable resources should not exceed regeneration, rate of depletion of non-renewable resources should not exceed rate of creation of renewable substitutes. Likewise Ralph Rookwood has given ten general 'Rules of Conduct' for Sustainable development.

Development and utilization of human resources and the improvement in the overall quality of life of the people are central to any development planning. There are however, two-way linkage between human development and overall economic progress. Sustained high economic growth is necessary condition and a significant driver of human development.⁶

Empirical Analysis of Sustainable Development in India:

The indicators of Sustainable development are useful for us in assessing the attempts to achieve Sustainable development and its extent materialized. To undertake an empirical analysis of Sustainable development in the context of India, some of the indicators of Sustainable development and the necessary data have been selected and presented in Table 1

Table No.1: Trends in Parameters of Sustainable Development in India

Sr. No.	Parameters of Sustainable	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CGR
1	GDP	2107661cr	2281305 cr	2449736 cr	260224 cr	3521414cr	3529240 cr	3740607cr	4297047cr	5249163cr	6095230cr	12.29
2	GDP Per Capita	Rs20868	Rs22148	Rs23331	Rs25796	Rs28636	Rs31794	Rs29524	Rs33203	Rs4060	Rs46492	8.68
3	GDP Growth Rate	4.45	5.8%	3.8%	8.5%	7.5%	8.4%	9.4%	7.35%	7.2%	8.2%	6.78
4	Share in Manufacturing in GDP(Growth Rate)	7.7%	2.5%	6.8%	7.1%	8.1%	9.4%	10.9%	12.0%	17%	15%	15.44
5	Investment share in GDP	24%	23%	25%	27%	30%	33%	34%	35%	38%	40%	7.21
6	Foreign Trade as % GDP	21%	20%	23%	23%	27%	20%	37.66%	38%	42%	36%	6.62
7	Share of Manufacturing Goods in Exports	79%	78%	77%	76%	74%	72%	99%	N.A	70%	68%	1.71
8	Capital Goods Imports	11%	20%	26%	40%	21%	44%	22.42%	23.56%	26.18%	22.37%	4.20
9	Env't. Expenditure as % of GDP	0.03%	0.04%	0.03%	0.03%	0.03%	0.03%	N.A	N.A	N.A	N.A	-3.23
10	Forest Coverage	20.55%	21.71%	N.A	20.64%	20.88%	21.02%	21.4%	21.2%	N.A	23%	0.30
11	Population Growth	1.25%17.29%	1.96%	2.20%	2.22%	2.14%	1.93%	1.7%	1.7%	1.54%	1.40%	1.7
12	Urban Population	26%	19.97%	19.91%	23.24%	25.72%	27.78%	29%	30%	33.5%	31%	9.21
13	Poverty	26%	N.A	N.A	N.A	27.05%	25.3%	N.A	N.A	N.A	N.A	-1.94
14	Human development Index	124	124	127	127	127	127	134	134	134	134	1.05

Sources: 1) Economic Survey 2009-10 (Govt. of India

2) Reserve Bank of India Publication

3) CGR- Compound Growth Rate

Growth of gross Domestic product (GDP) at constant prices in excess of 8% has been achieved by the economy in only eight years of recorded history, and two out of these eight are in the last three years. After dipping below 1% in 2004-05 mostly on account of erratic rainfall, agricultural and allied sectors growth in 2005-06 is projected at 2.3 percent.⁷

It is revealed from the data in table 1; the GDP (Gross Domestic product) of India has been increased continuously and rapidly at the rate of 12.29 % (CGR) in the 2000-01 to 2008-09. Likewise, the GDP per capita of India also registered 8.68 % (CGR) growth that

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was persistent and significant one during the same period. But the GDP growth rate showed a wide fluctuations having significant growth of 6.78 % (CGR). This indicates efforts of the Indian economy to achieve its rapid growth during the period into our consideration. Manufacturing is an important productive activity showed a considerable performance, but it has wide fluctuations, that rose at the rate of 15.44% during the period. Investment shows endeavors' to promote productivity and efficiency of the economy. The ratio of investment expenditure to G.D.P was significant, which indicated the growth of 7.21% for the total period. Foreign trade is an effective instrument of economic development, but at the same time, it adversely affects the quality of environment. India's foreign trade had a moderate share in its G.D.P., which showed wide fluctuations but negative growth for the total period as well as average basis. Manufactured sector of the industry or secondary sector contributed a significant share in the India's exports that stood more than 75%. But it showed growth of 1.71%. This is an indicator of India as an industrialized economy than the agricultural one. Still today, Indian has not achieved self-sufficiency in the production of capital goods hence their imports showed a rapid growth of 4.20 % as a whole and 50% year wise. The union Government of India has made a merge expenditure on the protection of the environment that even could not cross one percent of G.D.P. It is an indicator of negligence of the government towards protection of the environment. A forestation significantly contributes in arresting environment degradation on various counts. The forest coverage in India showed a considerable growth but it was inadequate that even could not cross 25 percent share of total area. Population growth very adversely affects the state of environment quality. And today also India is a fastest population growing country. The growing urbanization has severe repercussions on the degradation of the environment and its quality. The macro picture of urbanization shows it is 8.77%, but increasing considerably which demands to arrest that trend. Poverty has very bad effects on the environment and its quality. Still today more than 1/5 percent population is a below poverty line (B.P.L) population that needs to pay due attention from the point of view of environmental deterioration. The developments of human resources have a special importance in the perspective of environmental balance, but India is too behind in it as shown by progress in human development index, which is at 134. The improvement in agricultural sector was enabled by both food grains and non-food grains production. Furthermore, improvements in respect of horticulture, livestock, fisheries and plantation crops have imparted some resilience to the real GDP growth originating from agriculture and allied activities.⁸

Conclusions:

The empirical analysis of Sustainable development with reference to India in the latest post reform period reveals some important conclusions.

- 1) No doubt, India has been emerged out as one of the fastest growing economy in the world economy as a whole.

- 2) As a result, Indian economy has been offering comparatively better standard of living to its people. But the actual distribution of income among the people is necessary to take into consideration.
- 3) Likewise, economic growth of India was not sustainable because it showed a wide fluctuation in growth is an indicate or of un sustainability.
- 4) India has been converted into developed country from underdevelopment one, when the share of manufactured goods in exports is considered. But at the same time, it has failed in achieving self-sufficiency in the production of capital goods that play a vital role in achieving Sustainable development.
- 5) It is a good thing that India has been attempting in promoting its investment that adds to productivity and sustainability of development. But that must be a real investment.
- 6) The Union Government of India has neglected the responsibility of environmental protection by allocating a very meager share of expenditure towards the protection of environment.
- 7) Our country has failed in the necessary population control that degrades environment very faster and severe.
- 8) Urbanization and urban population is not a macro level problem before India, but definitely, it is micro level problem that can contribute to environmental deterioration.
- 9) Our country has failed in tackling the problem of poverty and promoting the development of human resources.
- 10) Thus, it is concluded that development in India is not a sustainable development, but it is economic growth or development as it is. But on some extent, India has attempted to materialize the sustainable development and not to the extent desirable. This is no doubt, demands to undertake efforts in that direction.

Suggestions:

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, particularly 12th Five Year Plan.
- 2) Sustainable development should be given top priority in the agenda of India's economic policy.
- 3) India should adopt such a strategy whereby sustainability in economic growth can be established, maintained and promoted.
- 4) Due efforts should be made to achieve sustainable development of secondary sector in general and manufacturing sector in particular, which is a underexploited and inconsistent that demand due attention.

- 5) It is the need of the hour to adopt a suitable investment strategy, which will provide real investment and not financial investment in the economy to facilitate development of present as well as future generations.
- 6) This will also cut down our foreign dependence on import of capital goods. India has an opportunity to exploit and utilize foreign trade as an instrument of economic growth.
- 7) Expenditure on environment protection must be given due importance in the budgets of all layers of governments to materialize the objective of Sustainable development.
- 8) It is very much essential to control the population growth as well as urbanization at a macro level through policy initiatives.
- 9) Due effort having honesty should be undertaken to tackle the problem of poverty, which is an important hindrance in achieving sustainable development.
- 10) Due efforts and importance should be given to provide educational, health and medical facilities and nutritional diet to deprived classes women and children.
- 11) The above mentioned direction can be a road map for the sustainable development of India.

Concluding Remarks:

Sustainable development is a multi-dimensional and interdisciplinary aspect of very much essential and significance. Its economic perspective in general and environmental economics approach in particular has a special importance. The applications and endeavors to achieve the concept of sustainable development especially in the post reform period in India have pivotal significance. The present study is a little bit attempts to explore issues and problems in the context of India in that direction. But it is difficult to collect the necessary and adequate data on this topic particularly concerning India. But it is a fact that sustainable development should be given top priority in economic policy of India and the millennium goal of development. There is a lot of scope in undertaking through and wide research on these burning issues with reference to India in the post reform period through research projects, dissertations and theses.

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