

India's Planning for Sustainable Development

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Abstract: *The present article deals with the sustainable development and Indian economy. Economic development is very necessary for all developing economies because of the problem of poverty, unemployment, low living standard and economic backwardness. All developed economies want to maintain their present level of development. So they used the natural resources with rapid rate, Due to economic development they degrade the environment. So there is a need for the sustainable development for all economies and check on environmental degradation.*

Keywords: sustainable development, economic development, environmental degradation.

INTRODUCTION

More than one hundred definitions of sustainable development exist, but the most widely used one is from the World Commission on Environment and Development, presented in 1987. It states that sustainable development is "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Sustainable development promotes the idea that social, environmental, and economic progress are all attainable within the limits of our earth's natural resources. Sustainable development approaches everything in the world as being connected through space, time and quality of life.(www.sustainabledevelopmentinfo.com)Sustainable development refers to a mode of human development in which resource use aims to meet human needs while ensuring the sustainability of natural systems and the environment, so that these needs can be met not only in the present, but also for generations to come. The term 'sustainable development' was used by the Brundtland Commission, which coined what has become the most often-quoted definition of sustainable development: "development that meets the needs of the present without compromising the ability of future generations to meet their own

needs." Sustainable development ties together concern for the carrying capacity of natural systems with the social challenges faced by humanity. As early as the 1970s, "sustainability" was employed to describe an economy "in equilibrium with basic ecological support systems." Ecologists have pointed to *The Limits to Growth*, and presented the alternative of a "steady state economy" "in order to address environmental concerns."[\(en.wikipedia.org/wiki/\)](http://en.wikipedia.org/wiki/)

The satisfaction of human needs and aspirations in the major objective of development. The essential needs of vast numbers of people in developing countries for food, clothing, shelter, jobs - are not being met, and beyond their basic needs these people have legitimate aspirations for an improved quality of life. A world in which poverty and inequity are endemic will always be prone to ecological and other crises. Sustainable development requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life. In essence, sustainable development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and [aspirations.\(www.un-documents.net/ocf-02.htm\)](http://www.un-documents.net/ocf-02.htm)

INDICATORS OF SUSTAINABLE DEVELOPMENT

ENERGY

Energy is central to social and economic well-being, and is indispensable in achieving human progress. It is a key element for poverty reduction, improving human health and raising living standards. Energy is not an end in itself, but only a means to an end. Energy, whatever may be the form, coal, solar, nuclear, or biomass is not good or bad in itself, as far as it can deliver this end. At present, much of the energy in transformation, from source to end use, goes as waste. Along the energy chain - from resource extraction to the provision of energy services - pollutants are produced, emitted or disposed of, often with severe health and environmental impacts. Even if a technology does not emit harmful substances at the point of use, emissions and wastes may be associated with its manufacture or other parts of its life cycle. Hence it is important to use energy efficiently with appropriate fuel choice to avoid crisis in future. This can be done by substituting efficient technologies for inefficient ones and renewable energy in place of non-renewable resources.

WATER

Water is one of the basic resources for urban system as it is essential for the very existence of human, plant and animal life. As water is a common factor that cuts across all sectors of development. Because of the strong linkage water with development, monitoring the sustainability of water resources can effectively provide an indication of SD in the region. Drinking water increasingly fails to meet standards due to pollution, poor operation of treatment facilities, lack of disinfection and the poor condition of supply systems and sewerage systems. There is equity issue where a section of society does not get water for basic usage, where as another section make wasteful usage of water in bathtub and gardening. Apart from households, water being an essential input to agriculture, industry and commercial purposes like aesthetics and recreation, the efficiency, equity and sustainability aspects would be studied.

LAND

Land use is mainly to satisfy residential, commercial and industrial requirements and also to improve public facilities, which in turn enhance quality of life. The land usage pattern changes due to the interaction of demographic, political, economic, societal, environmental, and cultural reasons. However, this change usually makes a direct and serious impact to the natural environment. Land, being a limited resource, needs to be utilized in a sustainable manner. The concrete surfaces are on the rise, and the dissipation spaces like wetlands, and mangrove lands are on the decline leading to rain-fed floods. More of soil erosion, deserted and contaminated land is considered inefficient utilization of urban land system. Sustainable land use requires strategies which optimize economic development, enhance social welfare and minimize the environmental impacts of human activity.

AIR

The quality of air directly affects the socio-economic condition of a society. As a result of the rapid economic growth in India over the past two decades, commercial and industrial activity is increasing resulting in significant air pollution. There is a relation between air pollution and sickness rate. The increasing number of vehicle remains the main cause of the deterioration of air quality in urban regions causing respiratory diseases. The impact of air pollution on the market value of real estate is significant. The indoor air pollution at workplace (factories) also needs to be parameterized.

POPULATION

In the early 1990s, approximately half of the countries of the world, mostly developing ones, considered the patterns of population distribution in their regions to be unsatisfactory and wished to modify them. A key issue was the rapid growth of urban areas, which started housing more than half of the world population since mid 2007. The process of urbanization is an intrinsic dimension of economic and social development and, in consequence, developing countries are going through the process of shifting from predominantly rural to predominantly urban societies. Cities are centres of economic growth and hence migration from rural to urban regions takes place which has economic, social and environmental implications - both positive and negative - for the places of origin and destination. **(K. Nathan and B.Reddy,2008)**

STRATEGY FOR SUSTAINABLE DEVBELOPMENT IN INDIA

Interest in sustainable development was it seems first sparked by the non –aligned countries, including India, in the early 1970s and was an issue at the 1972 United Nations Conference on Development held in Stockholm. Pandit Nehru was anxious to make it an international issue and concern about sustainability was enhanced by the oil crises of the 1970s.Both pollution and depletion of non-renewable resources, such as oil, as a result of economic growth and population increases became major concern. **(Tisdell, 1995)** The strategy sets overall objectives and concrete actions for priority challenges for the coming period , many of which are predominantly environmental:

- Conservation and management of natural resources
- Public Health
- Social inclusion, demography and migration
- Global poverty and sustainable development challenges.
- Sustainable consumption and production.
- Climate change and clean energy. **(ec.europa.eu/environment/eussd/)**

ENVIRONMENT

Environmental related Acts and Rules taking by Indian government are following;

- India Forest Act, 1927.
- Mines and Mineral Act, 1957.
- Atomic Energy Act, 1962.
- The Wild Life (Protection) Act, 1972.
- Water (Prevention and Control of Pollution) Act, 1974.
- Forest (Conservation) Act, 1980.
- Air (Prevention and Control of Pollution) Act, 1981.
- Environment (Protection) Act, 1986.
- National Forest Policy, 1988.
- The National Environment Tribunal Act, 1995.
- National Forest Commission, 2003.
- New Environment Policy, 2004. (**Jain, Khanna, Batra and Bhatia ,2007-08**)

POPULATION

India is the second highest populated country of the world. About 16.87% population of the world lived in India. It is very necessary to check on increasing population.

Table No.:-1 (Size and Growth of India's Population) (Crore)

Year	Population	Increasing and decreasing	Average Annual Growth Rate(%)
1961	43.92	7.82	1.96
1971	54.81	10.89	2.22
1981	68.33	13.52	2.20
1991	84.63	16.30	2.14
2001	102.9	18.07	1.93
2011	121.02	18.12	1.76

(Source: Census of India, 2001 and 2011)

Schedule show that population increase with rapid rate from 1961 to 1971, but after this population growth come down till 2011. Its means India moved toward a sustainable growth of population. Remedial Measures for population control are following;

- Late Marriages: minimum age for male is 21 and female 18 years.
- Spread of Education.
- Health and Sanitation.
- Urbanization.
- Family Planning Programme 1965,1976.
- National Population Policy (2000). (**Jain and Majhi,2012-13**)

ENERGY

India was the first country in the world to set up a ministry of non-conventional energy resources, in early 1980s. India's cumulative Grid interactive or Grid Tied Renewable Energy Capacity (excluding Large Hydro) has reached 26.9GW, of which 68.9% comes from wind, while solar PV contributed nearly 4.59% of the Renewable Energy installed capacity in India. Renewable energy in India comes under the purview of the Ministry of New and Renewable Energy. India is densely populated and has high solar insolation, an ideal combination for using solar power in India. Some large projects have been proposed, and a 35,000 km² area of the Thar Desert has been set aside for solar power projects, sufficient to generate 700 to 2,100 gigawatts.

The development of wind power in India began in the 1990s, and has significantly increased in the last few years. Although a relative newcomer to the wind industry compared with Denmark or the US, domestic policy support for wind power has led India to become the country with the fifth largest installed wind power capacity in the world. As of December 2010 the installed capacity of wind power in India was 13,065.37 MW, Wind power accounts for 6% of India's total installed power capacity, and it generates 1.6% of the country's power.

Total Renewable Energy Installed Capacity (August 2013)

Table No.:-2

Sources	Total installed capacity (MW)
Solar Power (SPV)	1,968.84
Wind Power	19,779.15
Small Hydro Power	3,711.75
Waste to Power	99.08
Biomass Power	1,264.80
Bagasse Cogeneration	2,337.43
Total	29,161.05

(en.wikipedia.org/wiki/)

AGRICULTURE

Organic farmers tend to equate "natural" with "sustainable" and consider that their methods follow the tenets of a sustainable system. Their approach goes beyond methodology to embrace a philosophy of co-existing with nature rather than exploiting it. It involves benign designs and management procedures that work with natural processes to conserve all resources, minimize waste and environmental impact, and promote agro-ecosystem resilience. The ultimate goal or the ends of sustainable agriculture is to develop farming systems that are productive and profitable, conserve the natural resource base, protect the environment, and enhance health and safety, and to do so over the long-term. This approach emphasizes such cultural and management practices as crop rotations, recycling of animal manures, and conservation tillage to control soil erosion and nutrient losses and to maintain or enhance soil productivity. Low-input farming systems seek to minimize the use of external production inputs (i.e., off-farm resources), such as purchased fertilizers and pesticides, wherever and whenever feasible and practicable: to lower production costs: to avoid pollution of surface and groundwater: to reduce pesticide residues in food: to reduce a farmer's overall risk: and to increase both short-term and long-term farm profitability. Another reason for the focus on low- input farming systems is that most high-input systems, sooner or later, would probably fail because they are not either economically or environmentally sustainable over the long-term. (<http://www.angrau.ac.in/media/7392/agro303.pdf>)

CONCLUSION

Economic development is very necessary for all economies because of the problem of poverty, unemployment, low living standard and economic backwardness and maintain their growth level. So they used natural resources and degrade the environment. There is a need for sustainable utilization of natural resources. India continuously moving toward a sustainable development in agriculture, check on population, environment, water, forests, energy etc.

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