

CHALLENGES AND STRATEGIES FOR DEVELOPMENT IN THE CHANGING SCENARIO

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© Ontario International Development Agency. ISSN 1923-6654 (print)

ISSN 1923-6662 (online). Available at <http://www.ssrn.com/link/OIDA-Intl-Journal-Sustainable-Dev.html>

Abstract: There are numerous of natural resources, gifted by the **God** to man for his survival. The man has been exploiting the nature for fulfill his needs, since he had come on this earth. The natural resources such as oil, natural gas, coal and other mineral resources are limited in accordance with growing human needs. It is, therefore, require an effective policy for exploiting all these natural resources, so that a position of sustainable development may take place at agricultural and industrial fronts in relation to environment. The paper examines the mode of exploitation the natural resources and the challenges, faced by the man, which is a results of his haphazard actions. Keeping in view the present changing conditions, it requires strengthening. The alternative strategies and conservation policy, so that a balance may be maintained between human action and environment in accordance development oriented changing scenario. It also requires an effective policy for judicious use of natural resources so that the sustainable development policy may facilitate to man healthier and sustainable living. It also require a periodic review of natural resources in relation to development perspective at various development hierarchy. In this context, focus is to be given on short term and long term planning, so that a duly coordination may be established in accordance with prevailing local conditions. In order to meet the challenge of energy crisis, it require an effective formulation of energy policy, so that a 'sustainable development' may be taken place through application of the strategies such as a perfect substitute of oil with non-conventional sources of energy. These energy sources should be tapped in accordance with their applicability by replacing the conventional sources with non-conventional sources of energy. The use of bio-based energy is some of sources which can be used as an alternative source of energy which can be a step as strategy for 'conservation of conventional sources of energy.' In the present

energy crises. Secondly, the strategy for sustainable development' for renewable natural resources by regenerating the natural resources such as forest resources, reclamation of waste land, water management, change in agricultural practices by using bio-fertilizer, crop-rotation, focus on eco-friendly product like food grain, fruit and vegetable. Only then, we shall be in a position to meet the growing challenge of steady growing 'unsustainable development position of changing scenario.

Keywords: Natural resources, Judicious use, Challenges, Sustainable Development, Changing Scenario.

INTRODUCTION

Mahatma Gandhi rightly said that the Earth provides enough to satisfy every man's need, but not for any body's greed. This quotation acts as a true reflector to reveal the gravity of the problem. There are numerous of natural resources, gifted by God to the man for his survival. The man is exploiting the nature for full-fill his needs, since he come on this earth. The natural resources, which include the oil, natural gas, coal and other minerals, are limited in accordance with growing human needs.

The attention of the Consultative Meeting is also drawn to the concept of "Sustainable development," as outlined by the world commission on Environment and Development. The underlying principle of sustainable development is that the exploitation of the resources, the direction of the investment, the orientation of technological development and institutional change should be consistent with future as well as with present needs. The profligate use of environment resource should no longer be acceptable, and action is needed to make economic growth compatible with an acceptable environment. State government which is accountable for its policies, actions and capable of organizing a clean

administration supported by predictable economic and social policies and independent judiciary and commitment to be part of the International civil society. As areas of specific concern for India, Ray Lists population growth, the quality and stock of human resources, access to energy resources and agrarian reform. But beyond these more immediate concern. His study is with fundamental questions good governance in India (Biyayat Ray 2011). Sustainable development is one of the thrust areas of Ministry of Environment and Forest and International co-operation and sustainable Development Division (IC&SD) is responsible for interacting with the various UN Agencies, International Bodies and foreign countries for the cause of developing concerns of sustainable development in the various national programmes and policies IC&SD is nodal programmes within the Ministry to co-ordinate all International bilateral and multi-lateral agreements on environment cooperation and sustainable development issues.

Mechanism of Sustainable Development

(1) Sustainability: This is cause is a priority and we should make sure that we are not managing the choices of the future generations. **(2) Strengthening:** We should build on human capacities to develop and conserve at the same time. **(3) Starring:** Equitable distribution of wealth and resources in vital for sustainable development basic needs for all, without any discrimination should be ensured. **(4) Social Responsibility:** Our consumption pattern should be guided by a sense of social responsibility, we should strive for such a consumption that does not compromise the well-being of others.

In order to understand the mechanism of 'sustainable development' it is very essential to promote environment education through making use & methodology of formal and informal education. Global understanding is important, but it is not a simple task. Only by the cooperative participation of wide-ranging discipline and regions can it be realized. Geographer's contributions and regions can be realized. Geographer's contributions in this regards may be include promotion of global, or global-local, view-scale and trans-scale global views. **(a) Think globally, act locally (b) Think globally, act globally (c) Think locally, act globally (d) Think locally, act locally**

There are all important if we are to cope with environmental problems and we often need regional and national in between local and global (Himiyama 2010). Sustainable development maintains a delicate

balance between the human need to improve like style and feeling of wellbeing on the hand, and preserving natural resource and eco-systems on which we and future generation depend.

Sustainable development implies economic growth together with protection of environmental quality each rein-forcing the other. The essence of this form of development is a stable relationship between the human activities and natural world, which does not diminish the prospects for future generations to enjoy a quality of life at least as good as our own. Many observers believe that participatory, un-terminated by vested interests in a prerequisite for achieving sustainable Development. **(Mintzer, 1992)**

The Principles of sustainable development:- **(1) Equity:** Equity is essential for sustainable development. This concept promotes equality between ages, genders, class, races, continents and countries. **(2) Social Development:** concept of sustainable development emphasis on not only economic development, but also on social development and need to conserve our environment and natural resource too. **(3) Inclusive Approach:** Any growth that is exclusive is not right. Sustainable development has to be inclusive. It is based on the improved quality of life for everyone, mainly the poverty stricken people of the world. **(4) Human-Environment Harmony:** It understands that the needs of human beings and the requirements of the environment are inter development and acknowledge this facts. **(5) Co-operation:-** Sustainable development is possible only if the developed world and the developing world co-operate and former support the latter in their endeavors whenever then can, through subsidies for instance. Keeping in view the above mentioned principles of 'Sustainable Development'

This shows the mechanism of inter-relationships among these principles. In this modal, it obvious that the share of 'Sustainable Development' is the sum of 'Economic viability' As well as 'Ecological viability'. Meaning thereby, it is the position, where the equity of share of social development and economic development are taken place in accordance with. The 'growth with justice'. It requires a 'judicious use of the natural and the man-made resources. Only the, we shall be in a position to attain the 'sustainable development position' in the changing scenario. And it will ensure to pave the way to TQM (Total Quality Management) in the natural resources in relation of deteriorating environment in the present changing scenario.

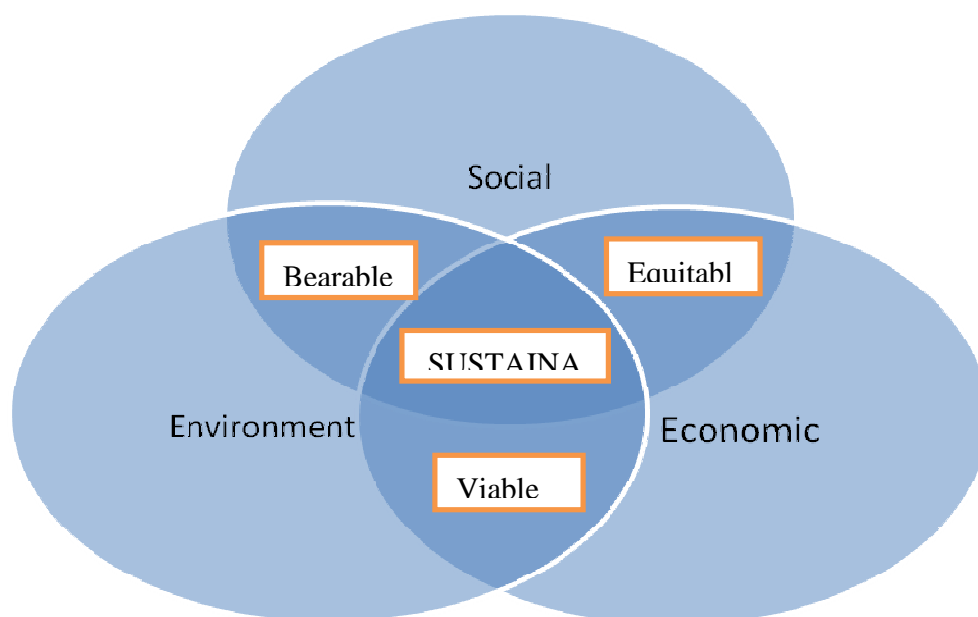


Figure 1: Principles of Sustainable development

Need of sustainable Development

The human population is rising day by day. Their demands too are on rise. There is a need of natural resources to meet these demands. What we have done till now is followed on economic growth pattern that is short term. In the process to meet on accelerating needs. We face the consequences if improper balance in the form of climate changes in our daily everyday life. The magnitude of such challenges might just accelerate for our future generation. Here we need a development plan that's long term, even if slow and give us time to replace the resources, we conserve through measures like planting tree etc. This is not only for our own good, we need this for the sake of future generation as well as maintain the healthy environment.

OBJECTIVE OF THE STUDY

(1) The study is aimed at discussing the mechanism of sustainable development. (2) The study is aimed at high lighting the challenges, posed by unsustainable Development. (3) The Study is aimed at the efforts by national and international organizations, to tackle the problem of unsustainable developments. (4) The study is aimed at reviewing the strategies to mitigate the problem of un sustainable development.

Sustainable Development: Challenges in the changing scenario

A study changes have been experience during 90s and on word, not only in India but this change is being experienced by the whole world in our almost every sphere of life in the 21st Century too. As a result, it become very difficult to cope the 'Development phenomenon' with steady deteriorating environment. Keeping in view, various challenges before the 'sustainable development' is the rapid growth of population, this has led to break the balance between demand and supply of the natural and man-made resources. As Malthus, has tried to establish the relationship of growth population phenomenon with the fold production. According to Malthus, the population increases in G.P. (geometrical progression 3, 9, 27.....) and the food production grow in A.P. (Arithmetical Progression 2, 4, 8, 16....). The propagations of these series has already been warned the world for 'Food Security' to all. In this situation, various regions of the world are suffering from scarcity of good. As a result, it become essential to put an effective check on population growth, so that a judicious balance may be maintained between the population and the food grain production.

The challenges before the sustainable development', directly or indirectly affected by the population phenomenon, which covers demand for different mode of transport, schools, drinking water, sustainable rural and urban energy, waste management and growing air, water and noise pollution. It is the population phenomenon, which has given rise to build up a 'chronic population pressure' on the natural and human resources. The consequences of rapid growth industrial and urban development has given rise to developing the 'Hot Spots' on wide spread bio-diversity in different parts of the world, growing energy crises in rural and urban areas.

One of pressuring problem of 'Global Warming' which become a great threat to the sustainable development in the changing scenario. The present 'world dynamism' has posed to problem and challenges for the 'progressive man. (Sandhu, Sunjay and Sujata Bali, 2011). It is, therefore, become imperative to examine the issues, related to 'sustainable development' and find out a practical approach to solve the problem in a judicious way.(Singh S. Singh 2006). Growing disasters in the present scenario, become a great challenge and threat to the human welfare oriented actions war against natural disasters has become a great challenges before the human actions and the strategies for tackling the 'Environmental and development issues' in the changing scenario. It has become quest for development by facing the growing environmental problems. (Nathharam, Kaswan, 2006)

Keeping in view the demand and supply of natural resource, it become a chronic threat on natural resources. It is because of most of the natural resources, belong to 'Robber's economy'. It is therefore, it become imperative to manage the natural resources for 'sustainable development' (Renu Khathuria). It has also become essential to make a SWOT Analysis of the present environment status in relation to development. A judicious growth may be maintained, if both are maintain an equilibrium in a systematic way. (Amrita Chowdhury, 2006)

National and International efforts to meet the Challenge of 'Sustainable Development'

UNDP (United Nation Development Programme) has been playing a notable role to managing the environment with view to sustainable development. However, the protection and re-generation of the environment is vital for sustainable development. UNDP addresses this challenge by focusing on local priorities as well as global environment issues. In

time with this, UNDP supports such measures mobilizing and building the capacities of local communities and other stakeholders and development and promotion of technologies that help conserve use of natural resources.

UNDP in India works closely with the government in implementing its national agenda. The Ministry of Environment and forest(MOEF) and the Ministry of Non-conventional energy sources (MNES) act as UNDP's technical focus, in an integrated way, on different aspects of the environment, natural resource management, multi-level capacity building for decision making, mainstreaming environment into the development process, and information dissemination and advocacy.

UNDP assists the government through a range of technical assistance programme to provide inputs to national policies and strategies for promoting environmentally sustainable solutions. These programmes include clean technology demonstration, supporting the development of national strategies and action plans, and the strengthening of national and regional institutions. UNDP's environment strategies targets three types of strategies__ biodiversity conservation, natural resources management (e.g. water, forest (and clean energy technology promotion. It also include the conservation of forests, sustainable rural energy, waste management, rating industry, environment education.

The National Biodiversity Strategies and Action Plan, one of world's largest environment planning exercise. It aims to development a series of plans and programmes relating to ecological security and livelihood of the people mostly depend upon the natural resources. In a radical departure from established norms, the planning process started from several decentralised sources, and is attempt to make it ecologically and socially more sensitive. This modular process involves the preparation of action plans at various levels: village, block, district, state, regional and national.

Sustainable Development Networking Programme (SDNP):-

This programme is an UNDP initiative to make relevant information on sustainable development readily available to decision makers. SDNP is aimed at fostering informed dialogue and communications to empower stakeholders to become more action participates in the development process. The sustainable Development Networking Programme Secretariat in India, housed within MOEF, promotes

sustainable development through organized accessibility to and exchange of information among government agencies, academic and institutions, business and industrial establishments and Non-government agencies, academic and research organizations. The SNDP has so far identified nodes in the different organizations on subject areas relevant to sustainable development.

Hence, it is obvious that the national and international organization has been playing a notable and significant role for formulating and executing the 'sustainable development' oriented projects at various levels. The role of these institutions have been very significant, and paved to way to explore the new venue for R&D for different areas of 'Sustainable development'.

STRATEGIES FOR SUSTAINABLE DEVELOPMENT

(1) With rapid growth of population, an urbanization and industrialization have been increased tremendously. As a result, a tremendous storm on the finite natural resource. Unless all concerned do not act in an integrated manner, these natural resources will not be sustainable. (2) An adequate case should be paid to preserve fresh water bodies takes and wetlands is needed. Comprehensive management action plans may be prepared and implemented for sustaining these valuable natural resources. (3) Agriculture Productivity should be improved by scientific and ecologically safe and sustainable meant to ensure food security and better health for human being and environment. (4) Conservation of water, especially through rain water harvesting must be popularized with more vigor for ensuring water and food security. (5) For natural resources management projects, priority has to be given to incorporate the views of all stake holders and different users sectors in the planning stage itself rather than analyzing it later. Participatory resource management may be popularized. (6) All efforts shall be taken for recycling and reuse of treated waste water so that the available fresh water resource can be conserved local bodies and the Government should give importance to this strategy. (7) Detailed integrated studies are needed to map the sea water ignore in the water table aquifer of the coastal areas. (8) Judicious and equitable use of natural resources should be encourage so that all sections of the society, irrespective of region, relation, caste, creed or ethnicity should enjoy their right on the natural resources. (9) Tiny Island like Lakshadweep and coastal Zones must be given adequate importance

with regard to fresh water resources. (10) Eco-Tourism which preserves natural eco-system should be promoted in relation to priority of commercial tourism. Tourism around wetland areas should be such that natural and serene character and the quality of the wetland are not be disturbed. (11) Every city or urban conglomerate should be development on environmental foot print for ensuring sustainable and wellbeing of the society at large. (12) Various research institutions should take a lead role on research related to the conservation and sustainable management of natural resources in the country in general and region in particular. There is vast scope of R&D for natural resources management as a multi-disciplinary scientific human resource should play a key role in coordinating the central and state government agencies related natural resources for achieving this. (13) It is essential to set up a network of leading research stations of the region with the main research organizations to study the long term impact of climate change on water resources, food security, human health, bio-diversity etc. This will help in better documentation of changing scenario. (14) Any advisory body of bureaucrats, academicians, researches, NGO's and the masses is to be formed to prepare a Hazard Management plan at the local/district level so that suitable mitigation measures are evolved to manage the growing problems. (15) Explore the early warning system to take judicious decision using geo-spatial tools to investigate climate changes, (16) Adopt multi-criteria decision making technique like AHP (analytical Hierarchical Process) in hazard mapping. This provides a systematic approach for assessment and integration of various factors, involving several levels of dependent and independent, qualitative and quantitative information. (17) There are many space platforms that provide latest reliable information which can be prove useful for geo-spatial community and policy and decision makers. These data, derived from space, may be made accessible to the end users for better utilizations. (18) Many government policies restrict the use of data. More transparency in policy formulation is required for the use of data for academic research and decision making. (19) Significance of reliable primary data is to be realized and efforts are to be made to collect such data and create a repository and share among all stake holders. (20) Data available with the research organizations such as IMD, NRSC, CWRDM, WAPCOS, NCL, NPL, FRI, IARI and the Central and the State Universities, working on natural resource Management, should be complied to develop a most comprehensive data base, which can be used to carry

out studies for arriving at meaningful conclusion on climate change and its impact on natural resources management.

CONCLUSION

The paper throws an adequate light on multiple problems of 'sustainable development'. The whole discussion covers various issues of 'sustainable development' and the efforts have been made to establish a 'cause-effect relationships' by reviewing various papers, presented by the scholars, belong to various streams. In this contest various challenges posed by rapid growth of population on which has given rise to urbanization and industrialization, ultimately led to 'unsustainable development' on various fronts. The international body like UNDP has been playing a vital role to advising the Government and Non-government organizations, so that the 'sustainable development' oriented project may be executed effectively at various levels. In order to make an effective execution of the policy of 'sustainable development' it is essential to take a periodic feedback from the local people, so that the execution of 'sustainable development' policy may be fully responsive in accordance with the prevailing local conditions.

In order to executive the development policy in an effective way, it become imperative to choose the right strategy which may suits to the root cause of the problem, which has given rise to 'unsustainable development' in an areas. In this context, more emphasis has been given on innovative technology by using the GIS, for monitoring the natural resources; Software Package for Sustainable rural Development (SPSRD) and developing of multi institutional network may enhance the quality of R&D programme at various levels. The technique like AHP (Analytical Hierarchical Process) for hazard mapping of various natural disasters. It also requires documentation through 'documentary films' on environment and sustainable development issues.

It is concluded that the task of 'sustainable development' is a joint efforts, to be performed by the researchers, scientists of different streams, social scientists, administrators, public-representatives and the non-government organizations which may help to formulate and executive the 'sustainable development' policy on different regions of the world and particularly in various problematic areas of India too.

REFERENCES

- [1] Bryan g. Norton (2005), Sustainability- 'A Philosophy of Adaptive Eco-system Management' University of Chicago Press, Chicago.
- [2] Binayat Ray (2011), 'Sustainable Development and Good Governance issue,' Atlantic Publishers.
- [3] Buttier (2006), 'Issues of Sustainable Development' Paper presented in Ist International India Geography congress, held on Oct 5-7, 2006 at Osmania University, Hyderabad.
- [4] Chawdhary, Amrita (2006)' Environment and Development 'Paper presented in Ist International India Geography congress, held on Oct 5-7, 2006 at Osmania University, Hyderabad.
- [5] Kavita, NR and goswani, D.S. (2006)' Strategy for Sustainable Development of Drinking Water in Gauwati City: A Geospatial, Analysis- Paper presented in Ist International India Geography congress, held on Oct 5-7, 2006 at Osmania University, Hyderabad.
- [6] Keshwan, Nathuram (2006), 'Quest for sustainable development: paper presented in Ist International India Geography congress, held on Oct 5-7, 2006 at Osmania University, Hyderabad.
- [7] Khathuria, Renu (2011), 'Resource Management- A case study of 'Shekhawati Region of Rajasthan'. Paper presented on 12 APG National Congress on 08.09.11 at H.P. University, Shimla.
- [8] Rawat, M.S. Goswami D.C. Vijay Bahuguna (2011), ' Development Strategy for Hilly Region of Uttarakhand for Sustainable Development' Paper presented on 12 APG National Congress on 08.09.11 at H.P. University, Shimla.
- [9] Sengupta, Ramprasad (2001), ' A approach to Sustainable Development', Ecology and Economic, Oxford Publications
- [10] Sharma, Rashmi (2011), 'Sustainable management of Natural Resources for Environmental Protection-Role of Educational Institution' Paper Presented in 12th APG National Congress on 08.09.11 at H.P. University, Shimla.
- [11] Sandhu, Sunjay and Sujata Bali (2011), 'global warming and sustainable development: Issues and challenges. Paper Presented in 12th APG National Congress on 08.09.11 at H.P. University, Shimla.

- [12] Singh. S. Singh (2006), 'Changing concept and Practices of Development: Issues and Congress'. Paper presented in Ist International India Geography congress, held on Oct 5-7, 2006 at Osmania University, Hyderabad.

