

SUSTAINABLE DEVELOPMENT: AN OVERVIEW

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ABSTRACT

The term "sustainable development" was used at the time of Cocoyoc Declaration on Environment and Development in the early 1970s. Since then it had become a trademark to certain international organisations dedicated to achieving environmentally benign or beneficial development. Sustainable development is such a concept that signifies that "rate of consumption or use of natural resources should be approximate the rate at which these resources can be substituted or replaced". Sustainable Development means an integration of development and environmental imperatives. It also requires that a nation or society should be able to satisfy its requirements- social, economic and others- without undermining the interest of future generations. Countries of north use too many natural resources and such practice cannot continue along. Another Nature has been making available its resources and services as well as it are serving as receptacle for absorbing wastes for too long a time. We have to realize now that nature today is very fragile. Nature is finite. And experts have warned that it has reached to a critical threshold beyond which it would lead to Ecological Decline that would further lead to nothing but a disaster.

KEYWORDS: Sustainable Development, Cocoyoc Declaration, Environment and Development.

Introduction

Sustainable development is related to, system analysis, that is to say, how economic, social and environmental systems interact at various scales of operation to lead sustainable development that will strike optimal balance among the three subsystem. Marching towards the goal of sustainable development, it must ultimately lead to the reduction in poverty of people in the developing countries and also minimizing resource depletion, environmental damage and social instability. Sustainable development is essentially a policy and strategy for continued economic and social development without detriment to the environment and natural resources on the quality of which continued activity and further development depend. The environment and development are means not ends in themselves. The environment and development are for people, not people for environmental and development. To be sustainable, development must possess both economical and ecological sustainability.

The first case on which the apex court had applied the doctrine of 'Sustainable Development' was Vellore Citizen Welfare Forum vs. Union of India¹. In the instant case, dispute arose over some tanneries in the state of Tamil Nadu. These tanneries were discharging effluents in the river Palar, which was the main source of drinking water in the state. The Hon'ble Supreme Court held that:

We have no hesitation in holding that the precautionary principle and polluter pays principle are part of the environmental law of India. The court also held that: Remediation of the damaged environment is part of the process of 'Sustainable Development' and as such polluter is liable to pay the cost to the individual sufferers as well as the cost of reversing the damaged ecology.

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¹ Writ Petition (C) No. 914 of 1991

But before Vellore Citizen's case, the Supreme Court has in many cases tried to keep the balance between ecology and development. In Rural Litigation and Entitlement Kendra Dehradun vs. State of Uttar Pradesh¹, which was also known as Doon valley case, dispute arose over mining in the hilly areas. The Supreme Court after much investigation, ordered the stopping of mining work and held that:

This would undoubtedly cause hardship to them, but it is a price that has to be paid for protecting and safeguarding the right of the people to live in healthy environment with minimal disturbance of ecological balance and without avoidable hazard to them and to their cattle, homes and agricultural land and undue affection of air, water and environment."

Sustainable Development Goals and Challenges

Sustainable Development Goal (SDG's) were one of the main outcomes of the Rio+ 20 Conference was the agreement by the member States to launch a process to develop a set of (SDG's)², which were build upon the Millennium Development Goals and converge with the post 2015 development agenda. It was decided to establish an "inclusive and transparent inter-governmental process open to all stakeholders, with a view to developing global sustainable development goals to be agreed by the General Assembly"

It was further said that SDG's must be:

- Action- Oriented
- Concise
- Easy to communicate
- Limited in number
- Aspirational
- Global in nature

The main challenges to sustainable development which are global in character include poverty and exclusion, unemployment, climate change, conflict and humanitarian aid, building peaceful and inclusive societies, building strong institutions of governance, and supporting the rule of law. the huge gap opening up in India between the amount of natural resources that the country uses and the amount that it possesses is alarming. This mounting natural capital gap was reported by the Global Footprint Network even as India is struggling to deal with the global financial crisis and due to this India tends to face various challenges in its way to the glory of sustainable development. While India as a whole demands a significant percent of the world's bio-capacity, its per-capita ecological footprint, at 0.8 global hectares, is smaller than that of many other countries, and well below the world average of 2.2 global hectares. Indeed, the ecological footprint of many Indians may need to increase to allow for sufficient food, shelter, electricity, sanitation, medicine and material goods.

India's challenges to Sustainable Development

- The SDGs includes goals to provide basic energy services to all.
- Attaining energy efficiency across all sectors is one of the key elements to manage India's growth appropriately.
- About 1/3 of the households are still not connected to grid electricity, 80% of the rural households use traditional biomass as a primary source for cooking.
- India faces the pressure of having to provide better quality energy as its people have the dream to fulfil aspirations of a growing economy.

Aims of Sustainable Development

- The Open Working Group of the United Nations, while acknowledging the United Nations Framework Convention on Climate Change, has proposed the following aims for its Sustainable Development Goals (SDGs) accompanied by specific targets for some:
- Ending of poverty in all its forms everywhere by 2030 and eradicating extreme poverty for all everywhere
- Ending hunger, achieving food security and improved nutrition, and promoting sustainable agriculture by 2030

¹ Rural Litigation & Entitlement Kendra Vs. State of U.P [1988] INSC 254 (30 August 1988)

² Sustainable Development Goals

- Ensuring inclusive and equitable quality education and promoting life-long learning opportunities for all by 2030
- Ensuring availability and sustainable management of water and sanitation for all by 2030
- Ensuring access to affordable, reliable, sustainable, and modern energy for all by 2030
- Promoting sustained, inclusive and economic growth, full and productive employment and decent work for all
- Sustaining per capita economic growth in accordance with national circumstances and in particular, at least 7 percent per annum GDP growth in the least-developed countries
- Conserving and sustainably using the oceans, seas and marine resources for sustainable development by 2025.
- Protecting, restoring and promoting sustainable use of terrestrial ecosystems; sustainably managing forests, combating desertification, and halting and reversing land degradation and biodiversity loss by 2020.
- Providing access to justice for all and promote effective, accountable and inclusive institutions at all levels

Energy and Sustainable Development

Energy is an essential factor for sustainable development and poverty eradication. Nevertheless, it is estimated that in 2015 still about 2.8 billion people have no access to modern energy services and over 1.1 billion do not have electricity. Furthermore, around 4.3 million people are dying prematurely every year due to indoor pollution resulting from cooking and heating with unsustainable fuels. The challenge lies in finding ways to reconcile the necessity and demand for modern and sustainable energy services with its impact on the environment and the global natural resource base in order to ensure that sustainable development goals are realised.

The complex challenges of energy and sustainable development were highlighted at the United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992. Energy was discussed throughout Agenda 21. Agenda 21 highlighted the fact that current levels of energy consumption and production are not sustainable, especially if demand continued to increase and stressed the importance of using energy resources in a way that is consistent with the aims of protecting human health, the atmosphere, and the natural environment.

Nevertheless, energy was not explicitly considered in the Millennium Development Goals, but at the 9th session of the Commission on Sustainable Development (CSD-9), held in 2001, countries agreed that stronger emphasis should be placed on the development, implementation, and transfer of cleaner, more efficient energy technologies and that urgent action was required to further develop and expand the role of alternative energy sources.

Energy generation and use are strongly linked to all elements of sustainable development such as economic, social, and environmental. The history of human development rests on the availability and use of energy, the transformation from the early use of fire and animal power that improved lives, to the present world with use of electricity and clean fuels for a multitude of purposes. Energy is the neglected issue of the development debate. The lack of access to reliable and clean energy supplies is a major barrier to improving human well-being around the globe. There are an estimated 1.6 billion people living in the rural areas of developing countries who lack access to electricity, and so dependence on fossil fuels. Combustion of fossil fuels produces large amounts of CO₂, an important greenhouse gas. In response to increasing concern about the effect of anthropogenic greenhouse gases on global climate, international action has been agreed to reduce these emissions. On the other hand, renewable energy is the great, barely tapped solution to the two great challenges of the coming century such as poverty and global warming. Not only can renewable energy provide a clean, flexible power source for homes, schools and hospitals, at the micro-to-medium scale it has huge potential to create meaningful and useful jobs.

Energy Problem and its Impact of its Consumption

There is no denying that energy is the driving force—the very essence—of modern civilization. Energy services are essential for human well-being, and contribute to strengthening social stability thanks to the constant increase in the standard of living. Energy is decisive for the development and prosperity of economic players. Although the energy intensity needs of modern economies are gradually

falling, enormous quantities of energy will be required to improve living conditions in the developing countries. The energy sector itself occupies an important place in the world economy in terms of employment, income, and trade. Energy is tightly linked to the three dimensions of sustainable development: economic, environmental, and social. Energy services are obviously essential to economic and social development. To contribute to this ongoing development, the main issue in the energy sector will be to control the consumption of natural energy resources. In fact, we must set up a system for better compatibility of current living standards with the conservation of energy resources for future generations.

Impact of Energy Consumption

- **Impact on Climate Change**

As previously indicated, energy in general and electricity in particular are essential factors in the economic development of human societies. On the other hand, although energy sources are a decisive factor in economic and social development, in the current state of knowledge, their exploitation is a source of pollution which undeniably causes a problem. The steady rise in energy consumption is one of the causes of climate change. If humanity does not change its ways, specialists predict that temperatures could rise by 1.4 to 5.8°C between 1990 and 2100.

In addition to the increase in average temperature, human activities are likely to have immediately visible consequences on other aspects of the climate. Rising sea levels, major increases in precipitation in certain regions, reduced snow cover at the poles, and the frequency and intensity of extreme weather phenomena would all be signs of impending climate change. In this context, sustainable development is a must.

- **Impact on Environment**

Like any human activity, the production and consumption of energy can affect the entire biosphere. It is clear that certain systems, sectors, and regions will be harder hit than others by these large-scale phenomena. Certain terrestrial ecosystems (mountain regions, boreal forests, etc.), marine ecosystems (coral reefs, etc.), and coastal ecosystems (mangroves, etc.) are the most endangered. The following areas are also concerned: certain dry regions at middle latitudes because of changes in rainfall, low-lying coastal regions and large deltas in Asia and Africa, small islands, and populations with little ability to adapt, whose sanitary conditions could deteriorate, etc. It is therefore important to anticipate the exhaustion of reserves in order to prevent or limit the impact of this. In terms of sustainable development, energy efficiency is the first lever to reduce the consumption of natural resources. Technological progress must contribute to improving energy performance. The Le grand Group works towards this goal every day.

How to Overcome Energy as a Challenge to Sustainable Development?

- **Energy and Poverty**

Energy constitutes a key factor to improve living conditions and reduce poverty. Legrand's task in this area is to allow the greatest possible number of people all over the world to have access to electricity. If producers have access to energy, local agricultural products can be processed and sold at a reasonable price in cities, allowing rural households to reap greater benefits from their work. Moreover, if these households are connected to the public electricity system, they can often benefit from subsidized prices. The possibility of funding the supply of energy to the remote countryside and the sustainability of this funding contribute to promoting economic productivity in favour of the poorest segments of the population. The case of agriculture illustrates how electrical energy can significantly improve living conditions in the rural areas of poor countries. Note also that eliminating poverty is one of the central objectives of modern development policy. Access to energy services is an essential tool to improve the capabilities of poor and underprivileged populations, thus promoting equality. Some schools of thought even argue that access to sustainable energy should be set out as a basic human right. If production does not succeed in fulfilling our growing energy needs, however, the access of poor or rural populations to electricity and other sources could become even more difficult.

- **Controlling Energy Demand**

Electrical energy is the number one final energy consumed in France. We are particularly concerned by sustainable development. The approach to controlling energy demand starts with better use of the electricity consumed. The goal is not to downgrade user convenience, but to maintain the current level while saving energy. This goal can be achieved through the use of devices that consume

little electricity and through the possible intelligent management of the equipment already in place. Legrand plays a leading role in this area. More and more users are changing their behaviour in the right direction. The energy saved in this way, and therefore not consumed, will not emit any local pollutants or greenhouse gases.

The control of electricity demand involves a set of technologies and methods that aim to optimise the energy expenditure of consumers. This must be achieved while limiting public infrastructure costs and the impact on the environment. This control involves a certain number of actions and choices. Equipment must have the best possible performance (low-energy lamps, insulation of buildings with electrical heating systems, economical household and professional appliances, etc.). It is also preferable to choose devices that can limit the subscribed power demand on the network (power controllers, programmers, etc.). Finally, we must work towards replacing mains electricity used for thermal applications (heating, hot water) with electricity obtained from renewable energy sources.

- **Renewable Energy Sources**

The proportion renewable energy in our energy consumption must inevitably be greatly increased. The use of such energy sources is possible locally, and the methods are better and better mastered. Every citizen can therefore make a contribution to sustainable development by choosing to use renewable energy sources, whether partially or exclusively. The question of the development of renewable energy sources is inseparable from the question of sustainable development. Sustainable energy is abundantly provided by the sun, the wind, the earth's heat, waterfalls, tides, and the growth of plants, and it creates little or no waste or polluting emissions. By using these sustainable sources, we preserve the planet's fossil resources, such as natural gas and petroleum, the reserves of which are naturally limited and will inevitably be exhausted.

- **Other Energy Sources**

Energy production using fossil fuels is a polluting process from start to finish. The use of these non-renewable energy sources is a major source of greenhouse gas emissions. Moreover, we will need to find a way to cope with the shortage of fossil resources. For the time being, bio fuels are not an acceptable option. They consume a great deal of water, pesticides, and farmable land. They are also a source of greenhouse gases because of the deforestation they cause, the fact that their farming is highly mechanized, and the need to transport them. Nuclear power is produced and controlled in nuclear power plants. It generates much debate, criticism, concern, and danger. It has the advantage, however, of emitting very little greenhouse gas compared to fossil fuels. There is, however, a risk of accidents occurring in nuclear power plants (human error, malicious acts, earthquake, tidal wave, attack, technical fault, etc.).

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