

Sustainable Development: Evolution and Challenges Ahead

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Abstract. The concept of Sustainable Development is inherent to the civilizations world over. The explicit use of the term in the literature of the development economics is only a recent phenomenon. The concept of sustainable development started emerging by relating environmental concerns to the economic development during the initial years of its evolution. Gradually, more and more spheres of human life started finding mention while discussing the concept. Today, the concept has taken a form where it encompasses economic, social, environmental, political and cultural aspects of life into its ambit. In fact, there is hardly any aspect of the life that cannot find a place while discussing the concept. It has taken about four decades for the world Governments and the United Nations to come out with a standard set of Sustainable Development Goals which the nations across the globe are required to achieve in order to put the world economy on the path of sustainable development. There still remain many challenges in prescribing and following a standard recipe for achieving Sustainable Development Goals world over. A large number of parameters related to sustainable development are not possible to be standardized in the wake of prevalence of great diversity in the socio-economic, political and environmental conditions existing in different regions of the world. There are strong challenges for national and subnational Governments in developing a measurement framework for monitoring the achievement of Sustainable Development Goals.

Key words: Sustainable Development, United Nations, natural resources, Sustainable Development Indicators, eco-development, measurement framework

1 Introduction

The technological developments, emerging new social processes and environmental issues have made today's life a complex affair. The extent of complexity in today's life can be judged from the comparison between the lifestyle of the population of older and the modern times and also from the evolutionary process that the human life has gone through over the centuries. The complexities of modern life have resulted in evolution of new concepts, including that of sustainable development as the basis for overcoming the environmental and developmental challenges (Mebratu, 1998).

It had been nearly a decade since the terms "sustainable development" and "sustainability" "rose to the prominence of mantra-or a "shibboleth" (Daly 1996) following the 1987 publication of the UN-sponsored World Commission on Environment and Development

(WCED) report, 'Our Common Future'. The definition given by WCED is the one which has been most commonly used at the global level to cover various perspectives of sustainable development despite the vagueness and ambiguity inherent in the definition given by the WCED. Ever since, a very large number of attempts have been made at local, national and global levels to explore into the nature of various challenges pertaining to environmental issues. Quite a few of these attempts have been made in the local context which, obviously lack the global perspective of sustainable development. Hence, their impact on the global level in the pursuit of solutions to various issues pertaining to sustainable development have been minimal. This has resulted in disillusionment and frustration among many groups and institutions promoting the concept of sustainable development (Mebratu, 1996).

The term sustainable development caught the attention of a very large number of scientist and institutions during 1980s and was being interpreted as a phrase which would eventually phase out with time. However, contrary to this belief the scientists and the institutions had started further exploring the term alike. This has contributed to broadening the scope of the term sustainable development and which, in turn, has resulted in a large number of definitions and concepts. As the efforts at the global level became more focused towards understanding the implications and complexities of various aspects of the term, the flaws in the concept of sustainable development and its operationalization started to emerge.

Historically, the concept of sustainable development can be viewed as an implicit norm in the life style of people who lived in the ancient civilizations. With the growth in population, as the pressure on available resources increased, the people preferred either to migrate to newer settlements or adapted to the alternative means of livelihoods in search of new resources. This inference can be easily drawn from the historical description of the ancient civilizations of the world. As the civilizations progressed, role of technology became important. The application of technological advancements resulted in industrialization of the societies, a process, which has inevitable adverse effects on the environment. The societies' concern about the environmental issues is evident from the historical description of various social movements.

The following text gives a brief account of the history of evolution of the concept of sustainable development. It has been divided into four distinct sections – the first section covers the period up to the Stockholm Conference on Environment and Development (1972); the

second, from Stockholm to World Conference on Environment and Development (1987); the third, from the WCED to United Nations Sustainable Development Summit, 2015; (Mebratu, 1998) and, the fourth section gives an account of the possible challenges in achieving the Sustainable Development Goals in the post 2015 period.

2. Pre-Stockholm period

Traditions and Religious Beliefs :The religions world over have been perceived to have talked about the complex relationship of interdependence between nature and human race from the perspectives of social structure, human interest and commonly held religious beliefs. The socialized nature of human societies can be easily attributed to the religious beliefs and laws followed by the human race. These, to a very great extent, have been able to satisfy human needs, abilities and power relations. Yet, at the same time Gottlieb (1996) has observed that “...religion has also represented the voice of nature to humanity”. The examples of different religions teaching to have cordial relationship with nature have been described by Kinsley (1996) and Gottlieb (1996) quoting the example of Christianity and Judaism; Dudley (1996) and Matthiessen (1984) giving the examples of Hawaiian religious faiths; and, Mbiti (1996) mentioning the African religious view point on nature. The religious beliefs and traditions followed by the Indian Society also indicate to harmonizing of life style with nature. The hymns dedicated to the nature and natural resources are found in abundance in the Vedic literature.

All the religions of the world are characterized by the core perspective of indigenous traditions and beliefs indicating to the importance of harmony between human life and nature, though, they have been characterized by different structures and contexts. However, these beliefs and traditions cannot be applied in today’s context of the environmental issues even if the teachings of various religions are assumed to have very strong grounds for their concern about the environment (Mebratu, 1998). However, the traditional wisdom of advocating living in harmony with nature forms the very basis of the modern concept of sustainable development.

Economic Theory of Limits: The limits to growth resulting from the scarcity of resources was first considered by an economist – Thomas Robert Malthus. While his thoughts are fit to be considered as a part of classical economics, some of the ideas given by him are at considerable variance with the basic principles (Oser and Blanchfield 1975)]. Many evil effects of the

industrial revolution had started surfacing by the end of 18th Century and problems of unemployment, poverty and disease had started asking for immediate attention.

According to Malthus's theory, unchecked population increases geometrically, while subsistence increases arithmetically best. (Oser and Blanchfield 1975). Malthus considered supply of good quality agricultural land as a limited resource and recognized the diminishing returns on agricultural production. (Pearce and Turner, 1990). To Malthus, the fixed amount of land available per capita meant that as the population grows, the resulting diminishing returns will lead to low availability of food per capita. This will result in lowering the standard of living. David Ricardo's growth model also recognized that the economic growth would fizzle out in the long run. The only difference between the thoughts of two prominent economists is that Ricardo considered deterioration in the quality of agricultural land as the limiting factor to growth.

However, there is a fundamental flaw in this theory. Both the theories make a very important assumption that the production function does not shift upward as the economy grows which, is a rare possibility in a world where technological advancements accompany economic growth.

Political Economy and the Scale of Organization: This tradition is closely associated with the socialist values. However, pure economic systems also appear to have been influenced by this school of thought. (Mebratu, 1998). Bigness is the nemesis of anarchism, whether the bigness be that of public or private bureaucracies, because "bigness engenders impersonality, insensitivity, and a lust to concentrate abstract power". According to Roszak (1989), if there is to be a humanly tolerable world on this dark side of the emergent technocratic world system, it surely will need to flower from this yet fragile renaissance of organic husbandry, communal, and do it yourself techniques as described by Schumacher (1989) in 'Small Is Beautiful'.

Roszak (1989) opined that it would be no exaggeration to call Schumacher the Keynes of post-industrial society, by which he meant a society that has left behind its lethal obsession with those very mega systems of production and distribution that Keynes tried so hard to make manageable. The first work of Schumacher appeared in 1959 under the title, 'The Crucial Problems of Modern Living' and he rose to fame with the publication of his famous book, 'Small Is Beautiful, in 1989. With the publication of 'Small Is Beautiful' the world became familiar with the phrase of appropriate and intermediate technology and its role to give new impetus to

the resources of the world from the perspective of determining inter connectedness between economic, ecological and social aspects of given system. However, some experts are of opinion that the concept of appropriate technology is the immediate precursor of the concept of sustainable development (DuBose *et al.*, 1995).

The period between Stockholm to WCED

The 1972 UN Conference of Human Environment in Stockholm, which recognized the “importance of environmental management and the use of environmental assessment as a management tool” (DuBose *et al.*, 1995), represented a major step forward in development of the concept of sustainable development. Even if the link between environmental and developmental issues did not emerge strongly, there were indications that the form of economic development would have to be altered.

Around the same time of the Stockholm Conference, a group of eminent scientists and concerned citizens gathered in Rome to look at the global environmental crisis that was expanding at an alarming rate. This group, later to be known as the ‘Club of Rome’ produced a comprehensive report on the state of the natural environment. This report emphasized that the industrial society was going to exceed most of the ecological limits within a matter of decades, if it continued to promote the kind of economic growth witnessed in the 1960s and the 1970s. (Mebratu, 1998).

The UN Conference on Human Environment held in 1972 had emphasized that the development and the environment cannot be placed at a conflicting position infinitely and the corrective measures are required to be taken at the earliest. The period following the Conference witnessed emergence of phrases like ‘environment and development’; ‘development without destruction’; and, ‘environmentally sound development’. The term ‘eco-development’ emerged in the UN Environment Review Programme (1978). This was the time when national and global stakeholders had started recognizing the need to consider issues related to development and environment simultaneously (Mebratu, 1998).

According to Trynza (1995), however, the first major breakthrough in conceptual insight came from the International Union on the Conservation of Nature (IUCN, 1980)[Working closely with the World Wildlife Fund for Nature and the United Nations Environment Programme, IUCN formulated the World Conservation Strategy, which was launched

internationally in 1980. This was a major attempt to integrate the environment and development concerns into an umbrella concept of “conservation.”

Although the term “sustainable development” did not appear in the text, the strategy’s subtitle, “Living Resource Conservation for Sustainable Development,” certainly highlighting the concept of sustainability (Khosla 1995). According to Khosla, by bringing the element of time directly into the environment and development debate, the strategy discovered a truly synthesizing factor in sustainability and was able to focus what earlier had been a rather diffused idea. The theme was picked up a few years later by the WCED (1987). The report of WCED (also known as the Brundtland Commission), made the key statement about sustainable development. The definition of sustainable development as contained in the report marks the concept’s political coming of age and establishes the content and structure of the present debate (Kirkby et al, 1995).

Two things emerged from the conceptual framework given by the Brundtland Commission of sustainable development. The concept of needs of the poor of the world was emphasized and the second idea that emerged from it was environment’s limited ability to meet present and future needs due to the limitations of state of technology and social organizations. These two ideas helped in establishing a strong linkage between poverty alleviation, environmental improvement and social equity through sustainable economic development. Even in the modern times this is the definition of sustainable development as given by the Brundtland Commission which is most widely accepted and used.

3. The period from WECD to UNSD Summit, 2015

If IUCN takes credit for incorporating the phrase “sustainable development” for the first time into an international forum, the Brundtland Commission, through its report was the major political turning point that made the concept of great geopolitical significance and the catch phrase it has become today (Holmberg 1994). Since publication of this report, sustainable development increasingly has become the core element of environmental discourse, leading to a very broad acceptance with very diverse interpretations. According to Holmberg (1994), by 1994 there were more than 80 different definitions and interpretations fundamentally sharing the core concept of the WCED’s definition.

The other major stumbling block after WCED is the UN Conference on Environment and development (UNCED), which is also known as the “Rio Conference,” or the “Earth Summit.” Preparation for the Conference, held in June 1992, began in 1989. There were four meetings of the International Preparatory Committee (PrepComs) held in different parts of the world. Parallel to the PrepComs, each UN member country was expected to produce a national report covering current national environmental and developmental aspects and drawing up an action plan for promoting sustainable development within the national context.

The Rio Declaration and Agenda 21 along with other conventions on climatic change had been remarkable contributions of UNCED in furthering the cause of sustainable development. Even the preparatory process, it followed, has contributed tremendously to the literature related to concept and applications of sustainable development. However, an important inference, as pointed out by Daly (1996), “... although there is an emerging political consensus on the desirability of something called sustainable development, this term-touted by many and even institutionalized in some places – is still dangerously vague” is to be used as a guide for making the desired changes. Reflecting the same apprehension, Goldin and Winters (1995) described the concept as being “elusive,” while Trynza (1995) presented the growing frustration around the concept, underlined by it being branded as “an oxymoron” by its own protagonists. Holmberg (1994) stated that “... sustainable development as a concept has become devalued to the point where, to some, it is now just a cliché.”

3. Post 2015 period and the challenges

Although, Brundtland report has been credited with bringing out the conceptual approach to sustainable development, the United Nations Conferences in Rio (1992), Johannesburg (2002), again in Rio (2012) and in New York in 2015 have provided much desired insight into the issues related to measurement of sustainable development. Intergovernmental negotiations on the Post 2015 Development Agenda initiated by the United Nations began in January, 2015 and ended in August, 2015. Following the negotiations, a final document was adopted at the UN Sustainable Development Summit September 25–27, 2015 in New York. The title of the agenda is ‘Transforming Our World: the 2030 Agenda for Sustainable Development’. For the first time, all the nations of the world have a defined set of seventeen Sustainable Development Goals (SDGs) to be monitored with the help of 169 indicators. The United Nations had also established the

Commission on Sustainable Development (CSD) which had presented the first set of sustainable indicators in the year 1993.

Starting from the decade of 1990s a lot of efforts have been made by the member nations through their national statistical offices in the direction of measuring the sustainable development. Most of these nations have come up with their own sets of sustainable development indicators. At the international level, the institutions and organizations like European Union, European Commission (Eurostat), the OECD, UNECE and the World Bank have initiated large scale projects to measure sustainable development and social progress. A comprehensive list of such initiatives with relevant details has been presented by the Joint UNECE/Eurostat/OECD Task Force on Measuring Sustainable Development. The work on developing sustainable development indicators after the Earth Summit of Rio in 1992 has been going on mainly in three directions. They are aimed at developing composite indicators, indicator sets and satellite account. However, the Agenda for Sustainable Development – 2015 has brought out a set of Sustainable Development Indicators which have been prescribed to be measured and monitored by all the countries across the globe while attempting to achieve the Sustainable Development Goals.

The phrase ‘sustainable development’ and the word ‘sustainable’ themselves are elusive as far as their meaning implicit in numerous definitions is concerned. This is so because of the inherent vagueness in them and also due to great disagreement among the social scientists and the practitioners of sustainable development with regard to the acceptability of a standard definition explaining these terms. Moreover, the context in which and the relevance with which these terms are used also tend to ingrain different sense in the meaning of these terms on different occasions defined by varying circumstances. A State where there are already all the households have a status of having been electrified, the emphasis of the policy immediately shifts to the provision of continuous and quality power supply rather than being on the electrification of households. Similarly, the States which are rich in natural resources and those states which follow ban on the felling of green trees are not confronted with the conservation related problems rather their policies tend to the shift the focus on management of natural resources rather than conserving them. Obviously, the concerns of the policy in such instances where the states have already surpassed the targets set at the national or global level, the meaning

of sustainability would tend to be at variance with the one in the context of those states which are still lagging behind these better performing states.

The point that is intended to be made here is that the same development strategy in the pursuit of Sustainable Development Goals may not have the identical degree of sustainability when is followed in different economies passing through different stages of development. Similarly their meaning would also not be the same when followed in different contexts. This gives the term sustainable development a highly contextual meaning which tends to vary with the situations in which it is used. Although the Agenda for Sustainable Development Goals – 2015 has been able to bring out a uniform set of indicators to monitor various sustainable development targets, yet, there is a great possibility that the targets set with reference to a specific Sustainable Development Goal may vary across the countries and even within the countries.

Another challenge would be to identify a set of Sustainable Development Indicators with which the progress made in the achievement of Sustainable Development Goals can be measured and monitored. There is every possibility that a standard set of Sustainable Development Indicators may not yield the desired and comparable results under two entirely different sets of conditions prevailing in two countries as the targets also tend to vary with the conditions. Probably, it is because of this implied reason that the Central Government in India is still working hard to finalize a standard set of Sustainable Development Indicators which could be used in measuring and monitoring the progress made in the achievement of Sustainable Development Goals by different States. In fact, Indian Government has yet to arrive at an agreement with certain concepts as brought out in the Agenda for Sustainable Development – 2015.

NITI Aayog has made an attempt to map the Sustainable Development Goals, targets and Indicators put forth by the United Nations in 2015 with the Ministries responsible for overseeing the implementation of the policies and programmes yearning to achieve the Sustainable Development Goals. This mapping has been shared with various Ministries and also with the State Governments not only seeking comments and suggestions from them but also enabling the state Governments to use this mapping as the guiding document for formulating the development strategy for achieving Sustainable Development Goals. The Ministry of Statistics and Programme Implementation has been entrusted with the task of development of measurement

framework for tracking/monitoring the progress of nationally defined targets under Sustainable Development Indicators. The real challenge with the Ministry would be to finalize these indicators keeping in view that they are in aligned to the national development goals on the one hand and also to ensure at the same time, that the measurement framework has built in flexibility enabling the State Governments to modify the indicators in such a way that they capture the regional concerns. Existence of vast diversity in terms of geo-climatic conditions, cultural, social, political and economic aspects prevailing across the State is going to pose additional challenges.

Measurability and timely availability of reliable information on the selected Sustainable Development Indicators would be some other challenges which the Central Government and the State Governments are going to encounter alike. There is mammoth task ahead both for the Central and State Governments in achieving the Sustainable Development Goals. The solution to tackle these challenges lies in the ability of these Governments to re-orient the development strategy in line with the local development needs on the one hand and to align the policies with the national and global Sustainable Development Goals and targets, on the other. This would require a lot of research and frequent exchange of views not only amongst Governments but also with the international experts. The solutions will start coming up as the implementation process of new and re-oriented development strategy sets in.

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