



## **Sustainable development: Theoretical insights**

**R Nagabhushan**

Assistant Professor, Department of Economics, Government First Grade College, Kuvempunagar, Mysore, Karnataka, India

### **Abstract**

The term 'Sustainable Development' has become a buzzword all over the world in the last few years. It is being discussed and debated in scientific discourses, in daily practices, in international negotiations, in local policy initiatives, in marketing and in business. The term has gained much prominence given the unsustainable trends around the globe. We are losing biodiversity and fertile soils; we are contributing to climate change on a huge scale; inequalities within and among generation are rising; poverty prevails in large parts of the world. The only hope to come out of this precarious situation is to give rise to sustainable lifestyle and durable development patterns. Sustainable development aims to achieve prosperity for all keeping in view the carrying capacity of our planet. The discussion of theories of development is a first step towards sustainability transitions. Both theory and practice of sustainability have to be in accordance with each other. Sustainability organically connects the three dimensions: ecology, economy and social justice. In the prism of sustainability, we see a different kind of economy: a lower resource, more natural, socio-ethically well-founded economy. The key principle of sustainable development is the integration of environmental, social and economic concerns into all aspects of decision making. Theories of sustainability attempt to prioritize and integrate social responses to environmental and cultural problems. An economic model looks to sustain natural and financial capital; an ecological model looks to biological diversity and ecological integrity; a political model looks to social systems that realize human dignity. Sustainability is not a final goal to be achieved at some stage, but rather a compass providing orientation for a journey into an unknown future. This paper attempts to throw light on a few theoretical aspects and models of sustainable development.

**Keywords:** Sustainable development, sustainability, theories

### **Introduction**

Sustainable development continues to be the key idea around which environment and development are structured. In order for development to be sustainable, it has to be comprehensive in the sense that it has to successfully balance economic goals with those of social and environmental. Development is in fact much more than simply economic growth. It includes things such as freedom, equity, health, education, safe environment, and much more.

Sustainable development is a process for meeting human development goals while sustaining the ability of natural systems to continue to provide the natural resources and ecosystem services upon which the economy and society depends. While the modern concept of sustainable development is derived most strongly from the 1987 Brundtland Report, it is rooted in earlier ideas about sustainable forest management and twentieth century environmental concerns. As the concept developed, it has shifted to focus more on economic development, social development and environmental protection for future generations.

Sustainable development is the organizing principle for sustaining finite resources necessary to provide the needs of future generations of life on the planet. It is a process that envisions a desirable future state for human societies in which living conditions and resource-use continue to meet human needs without undermining the integrity, stability and beauty of natural biotic system.

We can probably call sustainable development equitable and balanced, meaning that in order for development to continue

indefinitely, it should balance the interests of different groups of people, within the same generation and among generations, and do so simultaneously in three major interrelated areas- economic, social and environmental. So, sustainable development is about equity, defined as equality of opportunities for well-being, as well as about comprehensiveness of objectives.

### **What is sustainable development?**

Environmentalists have used the term sustainability in an attempt to clarify the desired balance between economic growth on the one hand and environmental preservation on the other. Although there are many definitions, basically sustainability refers to "meeting the needs of the present generation without compromising the needs of future generations (WCED, 1987) [6]." For economists, a development path is sustainable "if and only if stock of overall capital assets remains constant or rises overtime (Pearce & Warford, 1993) [4]." Implicit in these statements is the fact that future growth and overall quality of life are critically dependent on the quality of the environment. The natural resource base of a country and the quality of its air, water and land represents a common heritage for all generations. To destroy that endowment indiscriminately in the pursuit of the short-term economic goals penalizes both present and, especially, future generations (Todaro & Smith, 2011) [5].

Sustainable development is about being fair to the future. It is about leaving the next generation a similar or better resources endowment than that which the present generation inherited. The concept is honouring the environment's

limited capability for receiving waste. It means using exhaustible resources wisely so that, as they are depleted, the profits from their use are reinvested in technology and other forms of capital wealth.

There are three aspects to sustainable development

**Economic:** An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and avoid extreme sectoral imbalances which damage agricultural or industrial production.

**Environmental:** An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sync functions, and depleting non-renewable resources. This includes maintenance of biodiversity, atmospheric stability, and other ecosystem functions.

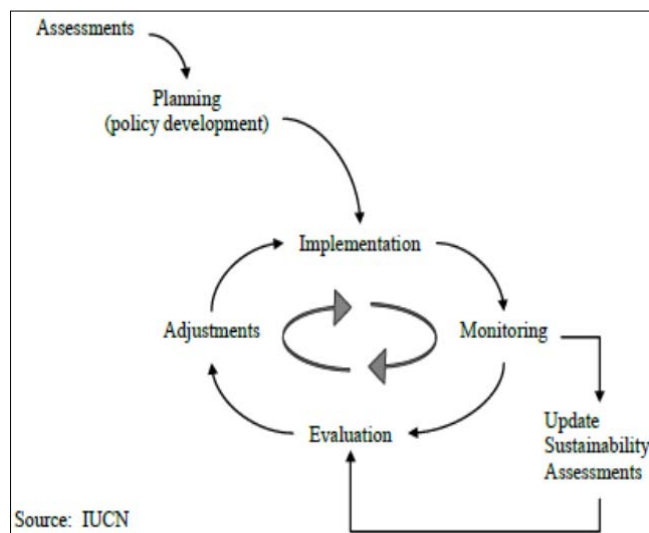
**Social:** A socially sustainable system must achieve distributional equity, adequate provision of social services including health and education, gender equity, and political accountability and participation.

**Why sustainable development?**

Globally, most countries have made significant advances both in GDP and in Human Development Index measures. However, the record of development is subject to two major criticisms

- The benefits of development have been distributed unevenly, with income inequalities remaining persistent and sometimes increasing over time. The numbers of extremely poor and malnourished people have remained high all over the world and in some countries even increased.
- There have been major negative impacts of development on the environment and on existing social structures.

The growing awareness of the challenges to traditional development thinking has led to the increasingly wide acceptance of a new concept - that of sustainable development, development, which protects the environment, development which advances social justice.



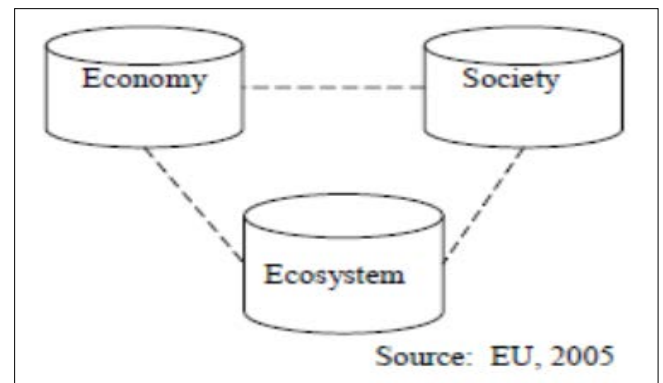
**Fig 1:** The Process of Sustainable Development

**Theoretical approaches to sustainable development**

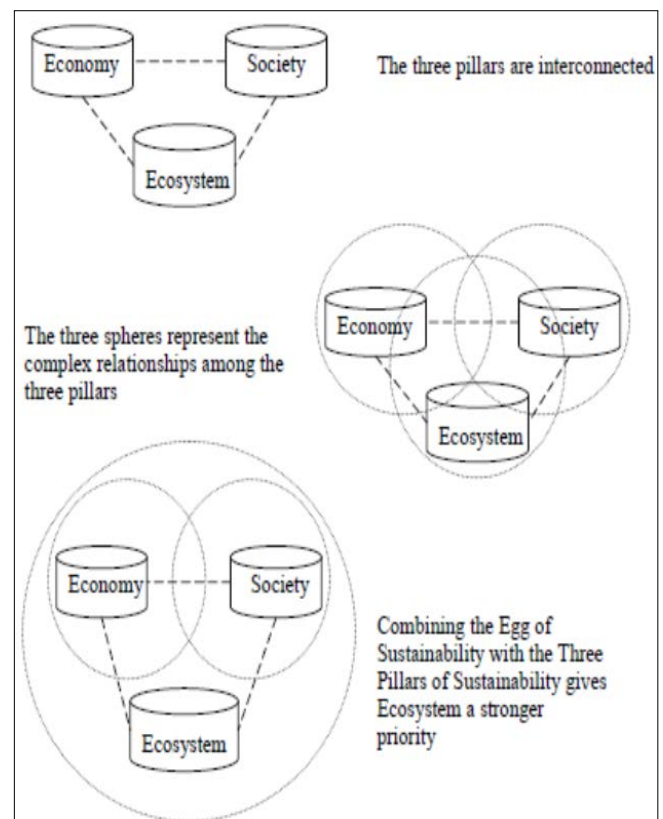
There are several theoretical approaches to sustainable development. Over time, the sustainable development concept has emerged from an effort to implement environmental conservation policies in conjunction with economic and social policies, each complimenting other two. The sustainable development theories contain three elements: economical, environmental, and social development. Following are some of the primary sustainable development approaches

**The Three Pillars of Sustainability Theory**

The Three Pillars of Sustainability is very common depiction of sustainable development. The three pillars of sustainable development are the economic development, social development, and environmental conservation. This approach is represented in the shape of a triangle as well as in the shape of three connected spheres called the three-circle representation all of which demonstrate the connections linking the three elements. If any of these three pillars is neglected then the foundation will not support the generations of the future.



**Fig 2:** The Three Pillars of Sustainability



**Fig 3:** Interaction among the three pillars

**The Egg of Sustainability Theory**

The International Development Centre (IDRC) proposes to replace the graphics of the three pillars or interlocking circles of society, economy, and the environment with the ‘Egg of sustainability’, originally designed in 1994 by the International Union for the Conservation of Nature (IUCN). The Egg of Sustainability illustrates the relationship between people and ecosystem as one circle inside another, like the yolk of an egg. This implies that the people are within the ecosystem, and that ultimately one is entirely dependent on the other. Just as an egg is good only if both white and yolks are good, so a society is well and sustainable only if both people and ecosystem are well. Social and economic development can only take place if the environment offers the necessary resources: raw materials, space for new production sites and jobs, constitutional qualities (recreation, health etc.). Ecosystem is therefore to be regarded as a super ordinated system to the other dimensions of the triangle or prism model: social, economic and institutional. These latter can only prosper if they adapt themselves to the limits of environmental carrying capacity. This model puts the ecosystem in the centre, following the logic that without ecosystem well-being social and economic well-being won’t be possible.

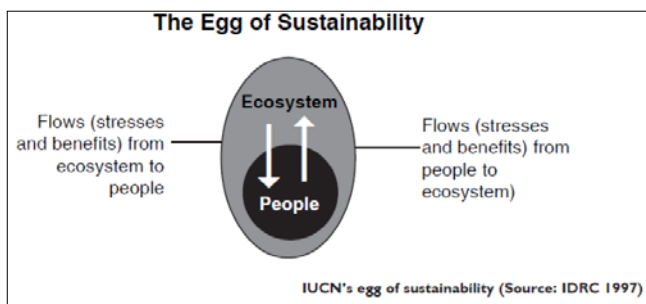


Fig 4

According to this model  
 Sustainable Development = Human well-being + Ecosystem well-being

The health of the egg depends on the health of both the yolk and the egg-white, if the integrity of the ecosystem is compromised then the people cannot survive (IDRC, 1997) [2]. Many important concepts are implied with the Egg of Sustainability, such as the importance of avoiding overexploitation of the world’s natural resources and the association of humans as the focal point. Other representations depict the humans in the egg-white with the ecosystem as the yolk (Keiner, 2004) [3], and yet others replace humans with society and economy. The Egg of sustainability approach is an over-simplified symbol; however, it has become a powerful tool for argument in spatial development issues and in the context within the processes supporting the implementation of sustainable development.

**The Prism of Sustainability Theory**

The Prism of Sustainability is an extension of the Three Pillars of sustainability Theory with the addition of institutions. Institutions are large organizations that are influential in a community such as Government Organizations, Non-Government Organizations, universities, and hospitals. The development of institutions

is not enough; achieving enough cooperation and coordination to successfully implement sustainable development requires institutional, social and financial strength. Social vigour is also important meaning that the society has knowledge, technical, and social capacity to adhere to rules and regulations and to participate in new initiatives. Support from the lowest levels of society is essential for success of sustainable development (Ghai & Vivian, 1992). However, for the lowest levels of society to provide support from the bottom up they must first obtain livelihood security such as food, water and other basic necessities to make sustainable choices and the financial power to pay for them. Without these components, sustainable development, as defined by the Brundtland Commission, cannot be achieved.

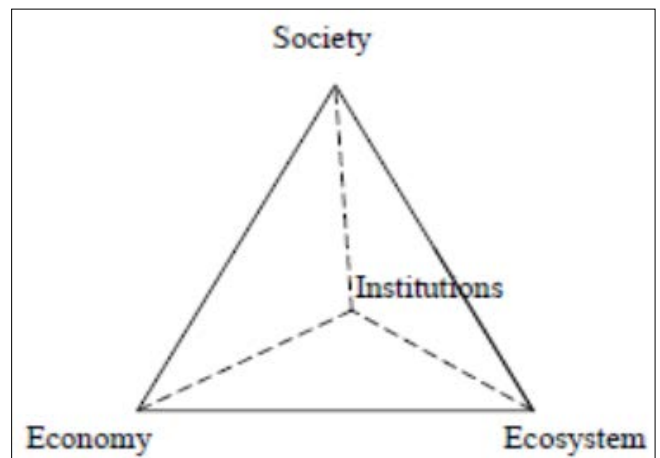


Fig 5

The institutional element of sustainable development is essential; linking strategy to the political will and active motivation needed to support implementation. In the Prism of Sustainability Theory, attention to institutional coordination and cooperation, as mentioned before, are both essential for the successful implementation of a sustainable development strategy.

The popularity of sustainability stems from a simple model used to facilitate the comprehension of the term: the triangle of environmental (conservation), economic (growth), and social (equity) dimensions. Mostly, sustainable development is modeled on these three pillars. The model is also called ‘three pillars’ or ‘three circles’ model.

The ‘prism of sustainable development’ adapted from the Wuppertal school stipulates four dimensions

- Economic dimension (man-made capital)
- Environmental dimension (natural capital)
- Social dimension (human capital), and
- Institutional dimension (social capital)

The environmental dimension comprises all-natural capital, which may be subdivided into stocks of non-renewable and renewable resources. The economic dimension stands for all man-made material assets such as buildings and roads. The social dimension should be perceived as the awareness of individual subject (worldview, knowledge, and experience). The institutional dimension concerns the organization of our society and the relation between people. The prism model points out the impossibility that man-made capital, social capital and human capital can increase at the same time at the same amount.

The prism model pays too little concern to the environmental dimension. For many, environment is the precondition for the development of human well-being. This view requires a model of sustainability, which puts the environment in the centre.

### **Conclusion**

Sustainable development, although a widely used phrase and idea, has many different meanings and therefore provokes many different responses. Sustainable development has the potential to address fundamental challenges for humanity, now and into the future. There is no such thing as a single unified philosophy of sustainable development. Further confusion about sustainable development arises as people use the same words to mean a wide divergence of views on the goals, routes and the methods moving towards sustainable development. The usual model for sustainable development is of three separates but connected rings of environment, society and economy, with the implication that each sector is, at least in part, independent of the others.

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