

## WHAT IS SUSTAINABLE DEVELOPMENT

### INTRODUCTION

Sustainable development today it is the most politicised catchword of international developmental conferences and programmes. What does it mean? We address this question right in the beginning of the unit. You will discover that it is a multidimensional concept and its interpretation and understanding is often content and context specific. Sustainable development has emerged out of the fears of depleting natural resources and a subsequent slowing or even closing down of much of the economic activities and production systems. It is the result of rapacious misuse of earth's precious and limited resource base by those few who had a control over production systems. The concept has emerged as a broad framework to debate and decide on desirable direction of change in social and economic systems, policies, programmes and actions at the national, community or individual levels. It developed in the 1960s when people became aware of the detrimental effects of industrialisation on the environment. You need to understand the context in which it came about to appreciate why it has become so important to all of us. You must also recognise that sustainability offers long term planning for productive techniques, industrial processes and equitable distribution policies for the exploitation of resources, such as, to name a few, coal, oil and water. This planning ensures their longer life span and a broader user base so that the greatest number of people may benefit out of it for the longest possible time frame. The emergence of the idea of sustainability also strikes at the indispensability of technological transformation towards energy saving devices, alternate and non-conventional systems for providing comfort to citizens without bringing down their quality of life. This has led to a total revolution in the way people and governments have started thinking and designing their developmental programmes and projects. A new respect has emerged for the grassroots governance which fuels growth by providing land, water and forests that constitute the three basic inputs to any form of industrialisation. Thus sustainable development is also indicative of 'planning from below' in contrast to the ivory tower 'planning from top' in which grassroots ecosystems were driven by technological systems. As a result, the grassroots ecosystems started to wither away as they were not able to manage and cleanse the high amount of effluent discharges, pollution and resource overuse. In the next unit, we introduce the various parameters that characterise sustainable development.

### Objectives

After studying this unit, you should be able to:

- explain the meaning and origin of the concept of sustainable development;
- describe the fundamental principles of sustainable development; and
- identify and analyse the indicators of unsustainable growth.

## **MEANING OF SUSTAINABILITY, DEVELOPMENT AND SUSTAINABLE DEVELOPMENT**

Nature provides human societies and economies with a complex life support system, air, water, food and a suitable climate for survival. It also provides the physical resources that are necessary for the sustenance of economies. Nature has supported and maintained life on earth since times immemorial and should continue to do so in the future. This is known as the sustainability of nature or ecosystems or environment. However, we have been interfering with the sustainability of the natural systems through our avaricious activities and if we continue on the same trajectory, not only the other life forms but also the very existence of mankind is threatened. There are limits to nature's capacity to absorb impacts. Once alteration of nature's initial state occurs, it cannot quickly revert back to the initial state. Nature has a limited capacity to withstand rapid change. Thus, today, the challenge before mankind is to determine the state in which we wish to live and to continue living within the limits inherent in nature's processes, within nature's carrying capacity. Sustainability The term 'Sustainability' has been defined variously, such as:

- Sustainability refers to a process or state that can be maintained indefinitely.
- Natural resources must be used in ways that do not create ecological debts by overexploiting the carrying and productive capacity of the earth.
- A minimum necessary condition for sustainability is the maintenance of the total natural capital stock at or above the current level. The term 'Sustainability' is also used to demonstrate the temporal and the livelihood context of development policies. The temporal context refers to the chronological perspective in which communities maintain their cultural and economic integrity. The livelihood context of development policies is the preservation of existing values which are under threat from external economic forces leading to the collapse of a delicate natural resource balance. The Strategy for Sustainable Living (1991) by International Union of Conservation of Nature and Natural Resources (IUCN) says that 'sustainable use means use of an organism, ecosystem, or other renewable resource at a rate within its capacity for renewal'. The economist Herman Daly has offered specifications for maintaining sustainability. He is of the opinion that: Rates of use of renewable resources should not exceed regeneration rates. Rates of use of non-renewable resources should not exceed rates of development of renewable substitutes. Rates of pollution emission should not exceed assimilative capacities of the environment. Development The term 'Development' means the social and economic improvement in a broad sense. It is needed to create opportunities, prosperity and choices for all inhabitants of the world and it must proceed in a way that leaves choices available for future generations also. It refers to a holistic growth of the human and natural environment towards autonomy and freedom. It indicates a growth pattern, which makes nations more decisive in their internal and external environment.

## **Sustainable Development**

The concept of Sustainable development was envisaged to bring environmentalist ideas into the central theme of economic development policy. It sought to modify the kind of unsustainable development strategies that were being pursued. Sustainable development combines the two terms of 'sustainability' and 'development' to indicate a pattern of growth, which strengthens both the national capabilities to care for their people in relation to their total relationship with the resources of the earth. The most widely used definition of Sustainable Development was given by the Brundtland Commission in its report *Our Common Future* (1987). It defined Sustainable development as 'development, which meets the needs of the present without compromising the ability of future generations to meet their own needs'. Since then, several interpretations of Sustainable Development have emerged, for example: Improving the quality of human life while living within the carrying capacity of supporting ecosystems. Economic growth that provides fairness and opportunity for all the people, not just the privileged few, without further destroying the world's finite natural resources and carrying capacity. Sustainable development comprises of economic and social development that protect and enhance the natural environment and social equity. Thus, sustainable development focuses upon a relationship between humans and their environment and indicates a warning that humans cannot push development, which is against nature as in the end it is always the nature, which is going to win. Sustainable development encourages the conservation and preservation of natural resources and of the environment and the management of energy, waste and transportation.

Sustainable development is development based on patterns of production and consumption that can be pursued into the future without degrading the human or natural environment. It involves the equitable sharing of the benefits of economic activity across all sections of society, to enhance the wellbeing of humans, protect health and alleviate poverty. If sustainable development is to be successful, the attitudes of individuals as well as governments with regard to our current lifestyles and the impact they have on the environment will need to be changed. Objectives of sustainable development Sustainable development has some forward looking and broad based objectives, which transcend class, caste, language and regional barriers. These objectives are a charter for liberating one's economy from the clutches of exploitative mind set, which has depraved nations and defied their biomass wealth. These objectives are:

1. To maintain the standards of living of the largest number of people with equity and justice. The consideration of Trans-boundary and cumulative impacts in decision-making has to be realised.
2. To conserve and protect earth's natural resources from misuse and wasteful consumption. This demands respect for the land and its diversity as the foundation for healthy communities.
3. To innovate new technology and scientific techniques, which work in unison with laws of nature and are not opposed to it. There needs to be a consideration of sharing the risks and benefits from developmental policies undertaken by different nations.

4. To respect diversity and involve local and indigenous communities for a more grassroots oriented and relevant developmental policies. This would involve consideration of economic viability, culture and environmental values, as policies and programmes are developed.
5. To decentralise governance institutions and make them more resilient, transparent and accountable to people. They should have an open, inclusive and participative decision-making.
6. To plan international institutions, which recognise the requirements of poor nations and support them to achieve their growth targets without destroying their natural wealth and environment?
7. To seek peaceful coexistence of all nations of the world because only peace can allow them space to innovate for the larger interests of humanity. This may demand honouring of treaties and fiduciary obligations and international agreements.

Sustainable development is a value-based concept, which appeals to the universal themes of mutual coexistence and respect for others. It is a continually evolving process bringing together cultural, social, economic, environmental and political concerns. It is a desired direction of change and provides a framework to decide developmental actions by nations, communities and individuals.

#### **ORIGINS OF SUSTAINABLE DEVELOPMENT**

The origins of the concept of sustainable development can be traced back to the 1960s when, the writer and scientist Rachel Carson published her book *The Silent Spring* (1962). This book drew public attention to the destruction of wildlife by the use of pesticide DDT. This work was a turning point in the understanding of the interconnections among the environment, the economy and social wellbeing. Gradually, in this period, the fear of global environmental limits began to emerge. Soon after, the animal population biologist Paul Ehrlich published the book *Population Bomb* (1968) on the connection between human population, resource exploitation, and the environment. In 1969, a non-profit organisation Friends of the Earth was formed which was dedicated to protecting the environment from degradation and empowering citizens to have a voice in decision-making. The governments of the Northern countries began to recognise that the process of industrial development was damaging the environment. For example, the Swedish government had been concerned about the damage caused to their lakes by acid rain. This rain was a result of excessive pollution caused by the neighbouring industrialised states. In 1971, the OECD council enacted a Polluter Pays principle where it said that those (countries) causing pollution should pay the costs. The report, *Limits to Growth* (1972), published by a group of young scientists (Club of Rome) from Massachusetts Institute of Technology (MIT), immediately took the world by storm gaining enormous media coverage. It predicted dire consequences if growth was not slowed down. The United Nations Conference on Human Environment (UNCHE) was organised in Stockholm (1972). For the first time, the idea that the environment was a critical development issue was placed on the international agenda. It led to the establishment of United Nations Environment Programme (UNEP). The first director of UNEP, Maurice Strong coined the term 'eco development' which integrated development with environment protection. Since then, many milestones have marked the journey towards sustainable development.

The concept of 'Sustainable Society' emerged at a study conference on Science and Technology for Human Development, convened by the World Council of Churches (1974). Interestingly, the concept did not deal with environmental conditions but started with the principle of equitable distribution, which subsequently became the cornerstone of the Brundtland Report in 1987. 'Sustainable Society' also involved the concept of democratic participation, which became important nearly twenty years later at the Rio Earth Summit (1992). Yet another term, "Sustainable Development", emerged in the World Conservation Strategy (WCS) (1980) published by the International Union of Conservation of Nature and Natural Resources (IUCN) by two scholars, Eva Balfour, a soil scientist and W. G. Jackson, a geneticist from the International Institute for Environment and Development (IIED). During the UN Conference on Environment and Development (UNCED) in 1992 at Rio de Janeiro, the term broadened up into a full concept of development bringing together government and non-governmental organisations (NGOs), industrialists, scientists, community groups and grassroots organisations. It became one of the most important interdisciplinary concepts that swept through studies on environment, economics, sociology, political science, life sciences and gender. By 2000, the concept of sustainable development became firmly settled as a guiding document in all international organisations. Since then the UN member states have been publishing reports on the national status of sustainable development programmes and strategies and submitting them to the specially created UN body called UN Commission for Sustainable Development (CSD). The term is modified for different user groups as 'sustainable human development', 'sustainable economic growth', 'sustainable socio-economic development' and 'sustainable local governance' and very recently in 2004 'Information Communication Technology' (ICT) for sustainable development.

#### **DEFINITIONS OF SUSTAINABLE DEVELOPMENT (DIMENSIONS AND CONCEPTS)**

Sustainable development was defined in the World Conservation Strategy report as 'the integration of conservation and development to ensure that modifications to the planet do indeed secure the survival and wellbeing of all people'. Development was defined as 'the modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of human life'. Development could prove to be a threat unless resources were conserved and so conservation of resources was defined in the report as 'the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining the potential to meet the needs and aspirations of future generation'. This phrase attracted attention in the Brundtland Report.

#### **The Brundtland Report:**

In 1983, the United Nations General Assembly set up the World Commission on Environment and Development (WCED) with the Norwegian Prime Minister Mrs Gro Harlem Brundtland as the Chairperson. The Commission's report was published as Our Common Future (1987). The definition of sustainable development given in this report contains within itself two key concepts:

1. The concept of 'needs', in particular, the essential needs of the world's poor, to which priority should be given.
2. The idea of limitations imposed by the state of technology and social organisations on the environment's ability to meet present and future needs.

The report emphasised that sustainable development is a matter of social equity within a generation (intra-generational) and between generations (intergenerational). The Commission stressed the importance of integration of environmental decisions into central economic decision-making. It argued that a healthy environment was not possible in a world marked by extreme poverty which forced people to practice environmentally destructive activities for short term survival. Therefore it broadly stressed on economic growth. The Brundtland Report was widely accepted as it was released at a time when a large ozone hole was discovered over Antarctica (1985) and the Chernobyl nuclear accident occurred in 1986 that spread radioactive nuclear fallout across Europe. The Earth Summit: The direct consequence of the Brundtland Commission's Report was the UNCED held in Rio de Janeiro, popularly known as 'The Earth Summit'. It was declared in this conference that 'the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.' The results of the Conference were the following documents:

- The Framework Convention on Climate Change
- The Convention on Biological Diversity
- The Statement on Forest Principles
- The Rio Declaration
- Agenda 21

**The Framework Convention on Climate Change (FCCC):**

The framework dealt with the limits on the use of fossil fuels. It was inspired by the success of reaching an agreement of the Montreal Protocol to reduce ozone depleting CFCs. The framework accepted that climate change (due to greenhouse gases) was a serious problem. It said that industrialised countries should take the lead to reduce the carbon dioxide emissions to 1990 levels by 2000, while there was no target for Southern countries.

**The Convention on Biological Diversity (CBD):** It affirmed that countries have 'sovereign rights' over biological resources in their territory which should be shared internationally on mutually agreed terms. The terms included recognition of indigenous knowledge as intellectual property.

**The Statement on Forest Principles:** Countries with tropical forests regarded the international intervention on their forests as intolerable. So, this document was brought out which emphasised national sovereignty over forests.

**The Rio Declaration:** This declaration had twenty seven principles. They emphasised development, national sovereignty over natural resources and cooperation between states. Scientific and technological innovations and environmental protection were the other issues that were highlighted.

**Agenda 21:** It is a document consisting of five hundred pages. It has a bottom-up approach and emphasises the role and participation of citizens, especially women, communities and NGOs instead of large state and governmental institutions and projects. The role of market, trade and business in bringing out sustainable development is emphasised. Agenda 21 also brings out the importance of knowledge creating institutions. The implementation of Agenda 21 is overseen by the CSD, which meets annually for three weeks in New York.

**The World Summit on Sustainable Development (WSSD):** After ten years of UNCED, the World Summit on Sustainable Development took place in Johannesburg in 2002. This summit is also called Rio +10. Countries were urged to stop over fishing by 2015 and a new commitment to establish marine protected areas by 2012 was made. An agreement to significantly reduce the rate of loss of biodiversity by 2010 was also made.

#### **Sustainable and Non-sustainable Activities:**

The concept of sustainable development is not just about the environment, but about the economy and our society as well. Sustainability is a concept, which deals with mankind's impact, through development, on the environment. Today's environmental problems are largely the consequence of the unsustainable consumption of natural resources and the mismanagement of waste products. Sustainability is about environmental protection, sustained economic growth and social equity. Sustainable development focuses on improving the quality of life for all. It also offers different things to different persons. From sensitive environmentalists to liberal marketers the concept has been interpreted and used to suit their needs. It is like the concept of democracy and justice, which are never contested but are interpreted, to suit ideologically opposed groups. However, the baseline agreement which is undebated in its meaning can be given in a nutshell as sustainable activities are those which:

- Use materials in continuous cycles.
- Use reliable sources of energy continuously.
- Use the positive and just side of human personality.
- Want growth to last longer without being slower.

Activities are unsustainable when they:

- Overuse natural resources in a wasteful manner.
- Consumption is faster than renewal.
- Overkill life forms leading to the extinction of species.
- Cause cumulative degradation of the environment.

#### **SUMMARY**

Sustainable development emerged as a concept in the early sixties when the ruthless industrialisation in the developed countries started showing visible signs of natural degradation and problems of pollution and ill health.

- Sustainable development became a wholesome word after the Brundtland Commission Report of 1987. It has three fundamental principles of intergenerational equity and justice, intra-generational equity and justice and that of the respect for the carrying capacity of land.
- The industrialised and the less-industrialised countries have defined the term sustainable development to suit their own requirements since the definition given by the report fails to define the processes underlying the complexities and contradictions within which international decisions are taken. However, there is a basic value inherent in this concept, which everyone agrees to, and that is the respect for human needs only in relation to the environmental capability to support the largest number of people to the longest possible time frame.