

## **SUSTAINABLE DEVELOPMENT CONCEPT** **AND COMPONENTS**

The term development is generally used to denote growth or progress. However the term, particularly in last two centuries, has become synonym to economic growth in terms of gross domestic product or the per capita income of the nation. This definition has created a rat race amongst the nations to attain and retain development goals. These goals are often contradictory to the idea of preservation or sustenance of environment. In order to re-build the harmonious relationship between man and nature, world organizations like UN, has began the campaign to have a sustainable development.

### 11.4.1 The Concept of Sustainable Development:

The most frequently used definition of Sustainable development is from the Brundtland Report “Sustainable development is the development that meets the needs of the present (people) without compromising the ability of future generation to meet their own needs”. In other words it is improving the quality of life of the present generation without excessive use or abuse of natural resources, so that they can be preserved for the next generation.

The term was first coined in 1972 at the United Nations Conference on Human Environment at Stockholm. The most important piece of writing on Sustainable development is in the publication by the World Commission on Environment and Development (WCED) in 1987 titled ‘Our Common Future’. In 1992 at the Earth summit at Rio-de-Janerio, 170 countries signed many important documents on sustainable development pledging preservation of environment.

Sustainable development is often referred as the marriage of economy and ecology. i.e. to attain economic development without compromising the ecological balance. It can be attained by rigorous

policy change, taking action and altering practices. There are three aims of sustainable development :-

- a) Economic- to attain balanced growth
- b) Ecological- to preserve the eco system
- c) Social-guarantying equal access to resources to all human communities

The objective laid down in the Brundtland report is as follows

- Dividing growth

- Changing the quality of growth

- Meeting essential needs of all in terms of job, food, energy, water and sanitation.

- Ensuring a sustainable population

- Conserving and enhancing the resource base.

- Reorienting technology, building technology that's less exploitative

- Managing environment and economics in decision making.

Need for sustainable development:

There are several challenges that need attention in the arena of economic development and environmental depletion. Hence the idea of Sustainable development is essential to address the following issues.

- To curb or prevent the environmental degradation

- To ensure a safe human life

- To check the exploitative technology and find alternative sources

- To check the over exploitation and wastage of natural resources

- To regenerate renewable energy resources

The concept of Sustainable development is based on following principles

- Integration of environment and economic decision

- Stewardship or humans as the caretaker of the environment

- Shared responsibility, accountability and decision making

- Prevention and mitigation

- Conservation

- Waste minimization

- Enhancement of productivity, capability, quality of nature and human life

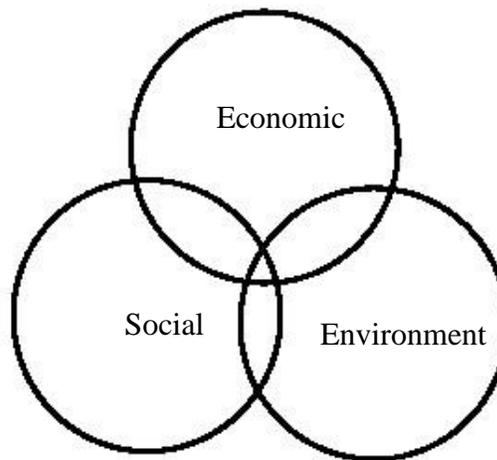
- Rehabilitation and reclamation

## Scientific and technological innovations

## 11.4.2 Components of sustainable development:

While discussing the components of sustainable development different criteria have been used depending on the context and the levels of decision making. The components are broadly divided into three elements namely social, economic and environmental.

Figure 11.6



- a) Social components-
- Workers health and safety
  - Impact on local communities, quality of life
  - Benefits to disadvantaged groups
- b) Economic components:
- Creation for new markets and opportunities for sale growth
  - Cost reduction through efficiency and improvements and reduced energy and raw material inputs
  - Creation of additional value
- c) Environmental components:
- Reduce waste, effluent generation, emission into environment
  - Reduce impact on human health
  - Use of renewable raw material
  - Elimination of toxic substances