

---

## UNIT 10 ROLE OF EDUCATION IN SUSTAINABLE DEVELOPMENT\*

---

### Structure

- 10.0 Objectives
- 10.1 Introduction
- 10.2 Meaning and Importance of Education
- 10.3 Role of Education in Sustainable Development
- 10.4 Vision on Education for Sustainable Development
- 10.5 Conclusion
- 10.6 Glossary
- 10.7 References
- 10.8 Answers to Check Your Progress Exercises

---

### 10.0 OBJECTIVES

---

After reading this Unit, you should be able to:

- Discuss the meaning and importance of education in the context of sustainable development;
- Explain the role of education in achieving sustainable development; and
- Explore the relationship among education, development and environment.

---

### 10.1 INTRODUCTION

---

Education is seen as a big force; a force that not only contributes to national development, but also sustainable development. It is a key to development, be it social, economic, political or environmental. Education promotes development of knowledge and skills required to achieve sustainable development (SD). It encourages promotion of economic well-being, social equity, democratic values and much more. Education for Sustainable Development (ESD) enables people and citizens to learn as to how to preserve earth resources which are limited in availability. The ESD has the objective of empowering present and future generations to meet their needs using a balanced and integrated approach to the economic, social and environmental dimensions of SD.

As already noted in Unit 1, concept of sustainable development or SD emerged as a response to a growing concern for human impact on the environment. The concept of SD has been broadly defined by the World Commission on Environment and Development (1987) as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. This definition is quoted in almost all the Units of this Course. The definition acknowledges that while development may be necessary to meet human needs and improve the quality of life, it must happen without depleting the capacity of the earth’s resources to meet the current and future needs.

---

\* Contributed by Dr. R.K. Sapru, Professor of Public Administration (Retired), Panjab University, Chandigarh

The SD movement has grown on the basis of a concept of sustainability that protects both the interests of future generations and the capacity of the planet earth to regenerate. In the 21<sup>st</sup> century, sustainability refers generally to the capacity of the biosphere and human civilization to co-exist. The Rio Declaration on Environment and Development (1992) laid down 27 principles of sustainability. One such principle is the Declaration that says: “In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process, and cannot be considered in isolation from it. Eradicating disparities in living standards in different parts of the world is essential to achieve sustainable development and meet the needs of majority of people.”

Sustainable development can be defined as those developmental activities that do not degrade the environment and can be carried on for a long period of time. One of the central principles of sustainable development is living within the limits of consumption of natural resources. Thus, the goals of economic and social development must be defined in terms of sustainability in all countries, developed or developing, market-oriented or centrally planned.

It may be noted that UN Conference on Environment and Development (popularly known the Earth Summit) also debated in 1992 and confirmed its resolve to promote the 3 pillars of SD, namely Economy, Society and Environment, as interdependent and mutually reinforcing concepts. To achieve SD, these sectors (pillars) need to come together. The economic, social or societal and environmental sectors are all critically important and interdependent. A healthy prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clean air for its citizens. This Unit discusses the role of education in achieving SD and explores the interaction among economy, society and environment.

---

## **10.2 MEANING AND IMPORTANCE OF EDUCATION**

---

Before we discuss the role of education in sustainable development, it is imperative to understand the meaning and importance of role of education in sustainable development. Role is defined as “the function assumed or part played by a person or thing in a particular situation”. The definition of a role “is a part or character someone performs or the function or position of a person”. An example of a role is the position of the nurse in a hospital. Merriam-Webster defines role as a function or part performed, especially in a particular operation or process.

Education is a process of developing the personality and creativity of the individuals so that they can in turn help in promoting a healthy society. Education is actually a process, which influences individual capabilities, social environment, economic development, ethical surroundings and above all cultural adaptability. Education is expected to evolve principles, methodologies and guidelines for the application of knowledge that could benefit society. It is also expected to provide knowledge and skills for addressing the issues of development. It must also enable people and students to develop an understanding and a perspective of the physical and social environment.

The importance of education can be interpreted from the reply to the question asked to Aristotle. The question was ‘How much better educated men were than

those who were uneducated'. Aristotle's reply was 'As much as the living are from the dead.' Education thus is a process to shape the quality of life of individuals and through them of the society and the world. It is an investment in the human resources. In the present age of science and technology, it has been increasingly realised that one needs to be educated not only to become a better human and social being, but also a creative and productive being. Looking at the changes taking place around the world, it is being widely felt that the kind of world we will bequeath to our children and grandchildren may not be a better one as a result of environmental degradation that results from political and economic decisions made today. A matter of grave concern is that those who reap the fruits of economic development today may be making future generations worse off by excessively damaging and destroying the natural resources and polluting the earth's environment.

'Sustainable development' was a major focus of the United Nations Conference on Environment and Development (UNCED) held in Brazil in June 1992. The achievement of sustainable development globally is likely to prove as one of the greatest challenges to the world community in view of the continued population growth and rising levels of consumption per capita. As the World Commission on Environment and Development observed, efforts to achieve sustainable development are being carried out amidst the additional pressure of such global difficulties as "climate change, ozone depletion, and species loss" (WCED, 1987).

As we all know, legacy of the concept of sustainable development is attributed to the Report of the World Commission on Environment and Development 'Our Common Future'. In this context, sustainable development secures a balance between economic development and ecological sustainability. Both economic and environmental systems need a certain minimum threshold value to survive. In essence, sustainable development is a process of change in which the exploitation of resources, direction of investments, orientation of technological development, and institutional change, are all in harmony and enhance both current and future potential to meet human needs and aspirations (*Ibid.*).

The concept of sustainable development rejects the traditional view that economic development is a necessity, but environmental protection is a luxury. The World Commission Report (*Ibid.*) noted that measures of success in sustainable development must take account of the context and of the need to meet social challenges. The sustainability aspect requires that the environmental administrators should aim to:

- i) Maintain ecosystems and related ecological processes essential for the functioning of the biosphere;
- ii) Preserve biological diversity by ensuring the survival and conservation of all species of flora and fauna in their natural habitats.
- iii) Observe the principle of optimum sustainable yield in the exploitation of living natural resources and ecosystem;
- iv) Prevent or abate significant environmental pollution or harm;
- v) Establish adequate standards of environmental protection;
- vi) Undertake or require prior assessments to ensure that major law policies, projects, and technologies contribute to sustainable development; and
- vii) Make all relevant information public without delay in all cases of harmful or potentially harmful releases of pollutants, especially radioactive releases.

Education for Sustainable Development (ESD) has been defined as “education that allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future. In other words, ‘the ESD is the process of equipping students with the knowledge, skills and attributes needed to work and live in a way that safeguards environmental, social and economic well-being, both in the present and for future generations’. The key ESD issues relate to climate change, disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption. Education for SD consequently promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way. Thus, education for SD requires far-reaching changes in the way education is often practiced today. The ESD would be meaningful when it is linked with issues that the world is facing today. It must be given a global outlook. Education thus plays an important and decisive role in sustainable development.

Education for SD should include the following thrusts:

- Promotion and improvement of basic education related to SD;
- Reorientation of existing education at all levels- primary (basic), secondary, higher in order to address SD.
- Development of public awareness and understanding of sustainability.
- Learning and development of training methods in the world of sustainable development. In this way, SD depends upon the provision of specialised training programmes to ensure that all sectors of society have the necessary skills to perform their work in a sustainable manner.

### **Check Your Progress 1**

**Note:** i) Use the space given below for your answer

ii) Check your answer with that given at the end of the Unit.

1. Discuss the meaning and importance of education in sustainable development.

.....

.....

.....

.....

.....

---

## **10.3 ROLE OF EDUCATION IN SUSTAINABLE DEVELOPMENT**

---

Sustainable development, as already noted, was formally initiated for the world community in the year 1992. In it, education occupies an important place. It is linked with environmental themes. The tragedy triggered by the COVID-19 pandemic presents the world with an incredible opportunity to build back better. Academic institutions, be they colleges, schools or universities, must double their efforts to ensure that the world’s policymakers and leaders are provided with the information they need to solve the increasingly complex developmental problems.

Thus, education for sustainable development promotes research and provides information needed to solve sustainable developmental problems arising out of human-made decisions. Education as an investment in human resources plays an important role among the factors, which contribute to sustainable development. Let us read about them now:

- **ESD promotes and encourages sustainable society**

Quality education is an important key and tool for achieving a more sustainable society. This was vociferously emphasised at the UN World Summit in Johannesburg in 2002, where the reorientation of current education systems was outlined as the key to SD. It may be noted that education for SD promotes the development of the knowledge, skills, values and actions required to create a sustainable society, which ensures environmental protection and conservation, promotes social equity and encourages economic well-being. Traditionally, India has been a sustainable society. In order to promote the value of sustainable development in education, the Indian government has directed its various education departments to actively work on an Environment Education (EE) component as a part of the curriculum.

- **ESD aims to develop knowledge about environment**

The concept of ESD developed basically from environmental education, which has sought to develop the knowledge, skills, values, and behaviour in people to give more attention to protection of environment. The aim of ESD is to enable people to make decisions and carry out actions, without compromising the planet earth. The COVID-19 pandemic has led to global crisis that is severely restrictive in nature and could hamper the ability to meet unprecedented challenges.

College, school and university closures have kept most of the students worldwide out of educational institutions. Online education facilities are not accessible to those who are without technological gadgets like computers, laptops and tablets. A majority of students are managing online teaching on their mobiles but most affected have been the abject poor and resourceless. The pressure on families is intense. Jobs are being lost and incomes are down. Climate change and environmental degradation are happening much faster than expected. The consequences are being felt around the world. The wildfires in America, Australia, Europe and Siberia have broken records for their ferocity. In 2020, flooding in South Asia has forced more than 25 million people to abandon their homes. The point is that the ESD aims to broaden knowledge and behaviour of people about the human-made problems. The aim of ESD is to enable people to make decisions and carry out actions, without compromising the earth's resources.

- **The ESD outlines integration of principles and practices of sustainable development**

The goal of the decade (2005-2014), as outlined by UNESCO, is to integrate the principles, values and practices of sustainable development into all aspects and dimensions of education. Thus, it aims to encourage changes in behaviour that will create a more sustainable future.

One of the most important aspects of the DESD is the recognition that ESD must engage a wide range of stakeholders- the government and non-government organisations, civil society, and general public.

To promote ESD, the UN Decade of Education for SD, 2005-2014 (DESD) was adopted by the UN General Assembly with the United Nations Educational, Scientific and Cultural Organisation (UNESCO) designated as the lead agency for promotion throughout the decade. The decade pursues a global vision “of a world where everyone has the opportunity to benefit from quality education and learn the values, behaviour and lifestyles required for a sustainable future and positive societal transformation.”

In its International Implementation Scheme for DESD, UNESCO states that ESD is fundamentally about behaviour and values, particularly respect for others, including those of present and future generations, for the environment and for the earth’s resources (UNESCO,2006).Education enables us to understand ourselves and others. It attempts to strengthen our links with the wider natural and social environment. This understanding serves as a durable basis for building respect. Along with a sense of justice, responsibility, exploration and dialogue, ESD aims to enable us to adopt behaviours and practices, which will lead us to live a full life, without being deprived of basic human needs and demands.

- **ESD focuses on environmental themes and concerns**

The ESD offers a beautiful vision of future with the dominant focus on environmental concerns. It also addresses themes such as poverty alleviation, citizenship, peace, ethics, governance, justice, human rights, gender, equality, corporate responsibility, natural resources management and biological diversity. It is generally recognised that certain characteristics carry values for the successful implementation of ESD, reflecting the equal importance of both the learning process and the outcomes of the education process (adapted from ‘UN Decade of Sustainable Development’, 2005-2014).

The focus of ESD is on curriculum to be prescribed for elementary, secondary and higher education. The curriculum is mostly interdisciplinary in nature allowing an institutional approach in policy-making. The ESD shares the values and principles that underpin sustainable development. It, in fact, promotes critical thinking, problem-solving and action-orientation, all of which develop confidence facing challenges related to sustainable development. It permits learners to participate in decision-making related to the design and content of educational programmes.

---

## **10.4 VISION ON EDUCATION FOR SUSTAINABLE DEVELOPMENT**

---

In the beginning of 21<sup>st</sup> century, the international community realised the value of education for sustainable development. It now strongly feels that we need to foster through education the values, behaviour and lifestyles required for a sustainable future. Education for sustainable development has an important role to play in our lifestyles and behaviour. Education is seen as a process of learning as to how to make decisions that affect us. It is concerned with the future of the

economy, environment and social well-being of all communities. Building the capacity for such future-oriented thinking is a key task of education.

This is a new vision of education. This vision helps the people of all ages to realise this aim of education in the context of sustainable development. It helps students to understand the world in which they study, play and live a little better. It enables them to address the complex problems of society and environment such as illiteracy, poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, and violation of human rights that threaten our future. This vision of education stresses on a holistic, integrated and interdisciplinary approach to development of knowledge and skills needed for a sustainable future as well as changes in values, behaviour, and lifestyles. This requires us to reorient educational curricula to programmes, policies and practices in order to empower people (especially youth) to make decisions and act in culturally appropriate and locally relevant ways to address and redress the environmental problems that threaten our common future. This enables people of all ages to develop and evaluate an alternative vision of a sustainable future and fulfil this vision through working creatively with others.

Thus, basic education is a key to nation's capacity to develop and achieve sustainability targets. The basic education can improve agricultural productivity, enhance the status of women, reduce population growth rates, increase environmental protection and generally raise the living standards. "The pandemic has firmly established the need to place sustainability towards the top of the top of India Inc's Agenda" (The Economic Times, 2020).

### Check Your Progress 2

**Note:** i) Use the space given below for your answer.

ii) Check your answer with that given at the end of the Unit.

1. In what way does education help in achieving sustainable development?

.....

.....

.....

.....

.....

---

## 10.5 CONCLUSION

---

Quality education for sustainable development is recognised as an important goal of the UN General Assembly (Resolution in 2015). "Education is the most important single factor in achieving rapid economic development and technological progress and increasing a social order founded on the values of freedom, social justice and equal opportunity. Programmes of education lie at the base of the effort to forge the bonds of common citizenship to harness the energies of the people and to develop the natural and human resources of every part of the country." In a word, education is regarded as the key to development and the fundamental pre-requisite of social and economic justice, which are the twin pillars of the Welfare State. In a world based on science and technology, it

is education that determines the level of prosperity, welfare and security of the people.

The primary concern of education for SD is the improvement of the quality of life of people without damaging the environment. It offers a bold and beautiful vision of our shared future- a future in which hundreds of millions of people no longer go to bed hungry every day, where poverty no longer harms one in ten people, and where quality education and lifelong learning opportunities are available to all. The heartbreaking reality is that we have failed to follow this roadmap. In other words, we are unable to implement this vision of a better world.

The underlying principles of ESD, as outlined by UNESCO, highlight the importance of respect and care for its diverse forms. This involves the protection and restoration of the earth's ecosystem, respect for the human rights, and regard for cultural diversity. In developed as well as developing countries, the diversity of programmes offered at present provides a good basis for any action plan on Education for SD and useful opportunities for inter-sectoral collaboration on common issues and areas on climate change.

Some sustained efforts need to be made (involving youth, religious organisations, senior citizen associations) to campaign together for the reduction of emission of Greenhouse Gases, population control, and better sanitation programmes, etc. The climate change campaign could serve as a model of good practice for achieving sustainable development goals. Innovation and new projects, ESD and related education sectors need to be popularised and encouraged by involving youth, senior citizens' associations, religious institutions, civil society groups etc. In this way the ESD would really contribute to the country's prosperity and happiness of the people. It would also ensure the social and economic well-being of the people.

---

## 10.6 GLOSSARY

---

**Ecosystem:** A group of living organism that live and interact with each other within a specific environment.

**Environmental Degradation:** Deterioration in the environment, caused by depletion or decay of resources eg., water, air and soil.

**Natural Habitats:** These are areas characterised by certain environmental conditions and by plant and animal species typical of such areas.

**Climate Change:** It means a weather pattern of Planet Earth. Climate changes are majorly caused by human activities such as fossil fuel burning, which increases heat trapping Greenhouse Gases. This leads to increase in surface temperature precipitating global warming.

---

## 10.7 REFERENCES

---

Commonwealth of Australia. (2007). *Caring for our future: The Australian Government Strategy for the UNDESD 2005-2014*. Retrieved from <http://aries.mq.edu.au/pdf/caring.pdf>

[https://unece.org/DAM/env/esd/ESD\\_Publications/10\\_years\\_UNECE\\_Strategy\\_](https://unece.org/DAM/env/esd/ESD_Publications/10_years_UNECE_Strategy_)



Nevin, E. (2008). *Education and Sustainable Development*. Retrieved from <https://www.developmenteducationreview.com/issue/issue-6/education-and-sustainable-development>

UNCED. (1992). *Agenda 21*. Retrieved from <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>

UNECE. (2016). *Ten Years of the UNECE Strategy for Education for Sustainable Development*. Retrieved from <https://sustainabledevelopment.ece-trans-wp15-2016-21e>.

United Nations. (2002). *Report of the World Summit on Sustainable Development*. Retrieved from <https://sustainabledevelopment.un.org/milestones/wssd>

WCED. (1987). *Development, Our Common Future*. Delhi, India: Oxford University Press.

World Bank. (1992). *World Development Report: Development and the Environment*. New York: Oxford University press.

---

## 10.8 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

---

### Check Your Progress 1

**1. Your answer should include the following points:**

- Education helps in development of personality of individuals.
- It influences human capabilities, social environment, economic development, ethical surroundings and cultural adaptability.
- It shapes quality of life.
- It makes individuals better social beings.
- Right education would help in maintaining ecosystems, biodiversity, optimum sustainable yield, as well as curbing environmental pollution.
- Education for Sustainable Development (ESD) is a new concept that requires adequate attention of policy makers and those involved in implementation of environmental legislation.

### Check Your Progress 2

**1. Your answer should include the following points:**

- Education for Sustainable Development (ESD) promotes and encourages sustainable society.
- ESD aims to develop knowledge about environment.
- ESD outlines integration of principles and practices for sustainable development.
- ESD focuses on environmental themes and concerns.