UNIT 10 : CONSERVATION AND PROTECTION OF ENVIRONMENT

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10.1 LEARNING OBJECTIVES

After going through this unit you will be able to:

- define the concept of conservation and protection of environment
- discuss the role of individual and society towards environmental conservation and protection and the legal and constitutional safeguards for environmental protection

10.2 INTRODUCTION

Nature is the mother of all creatures on earth. The gradual growth of world population and over exploitation of natural resources without realising the future consequences has led to severe degradation of the environment. Man must realize that biological diversity is a 'gift of nature' to be nurtured and enjoyed and not to be destroyed. Man must learn to make rational adjustment with nature involving judicious exploitation and utilization of natural resources without disturbing the ecological balance and eco-system

equilibrium. Therefore it is the need of the hour to take measures to conserve and protect our environment so as to maintain the ecological balance and stability of eco-system. Therefore, this unit introduces you to the concept of conservation and protection of environment, again what role have been played by individual and society towards the conservation and protection of the environment.

10.3 CONCEPT OF CONSERVATION AND PROTECTION OF ENVIRONMENT

Desire for changes and improvement of life for quick modernization that act in human mind has led to large scale degradation of the natural resources in the environment. The basic natural resources like air, water and soil have been quite thoughtlessly and ruthlessly destroyed as a consequence endangering human life itself. Moreover, there was a time when people thought that natural resources were unlimited, and can never be reduced or brought to an end by men through their use. But explosion of human population at present and their wanton destruction of nature's resources have made to realize that there is the need for conservation of them before it is too late. The World Community in the Nairobi Conference of 1968 had proposed that environmental education should create awareness and understanding in man for national use and conservation of those resources.

The word 'Conservation' literally goes to mean the vast natural and biological resources of the earth should be kept unchanged. Conservation of environment refers to the planned management of the total environment including natural resources of a particular eco-system in order to prevent exploitation, pollution, destruction and to ensure the future use of the resources and to attain sustainable development. **The International Union for Conservation of nature and natural resources (IUCN)** defined environment conservation as "The management of human use of the biosphere so that it may yield the greatest sustainable benefit while maintaining its potential to meet the needs and aspiration of future

generations". Thus, conservation is the sustainable use of natural resources-such as soil, water, plants, animals and minerals. In economic terms the natural resources of any area constitutes its basic capital and wasteful use of those resources constitute an economic loss. From the aesthetic and moral view point, conservation also includes the maintenance of nationalparks and wild life sanctuary. In certain cases, conservation may imply the protection of a natural environment from any human economic activity.

The term 'Protection' implies that man should remain responsible and take the initiative to put a stop to senseless destruction and degradation of the natural resources. Man should exhibit the sense of sanity not to indulge in the negative and destructive role towards nature. Although in broad sense 'Conservation and Protection' may be said as the relative terms. Conservation of nature may be possible through protection of nature by man. Man may apply new knowledge and skills, science and technology to conserve and preserve, protect and develop the natural resources for their own benefit. This new realization may be made possible through environmental education.

10.3.1 Legal and Constitutional Provisions for Conservation and Protection of Environment.

In this section, after going through the concept of conservation and protection of environment, we are going to discuss the various legal and constitutional provisions for conservation and protection of environment. You will get a clear idea about these provisions from the following description.

India has been the first country to make constitutional provisions for the protection and conservation of the environment. In 1976, within four years of Stockholm Conference, India made constitutional provisions for environmental protection through the 42nd amendment. **Article 48-A** of the Constitution provides: "The State shall endeavour to protect and improve the environment and to safeguard forests and wildlife of the country".

Article 51-A (G) provides: "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures".

Thus the constitution of India has included environmental protection and conservation as one of the fundamental duties of the citizens of Indian Republic. Gradually the parliament and State Legislatures are empowered to legislate the Central, State and Concurrent lists of subjects like noise control, land improvement, irrigation, town planning, slum clearance, housing schemes, pest control, water pollution, forests, wildlife, recreation etc. As a result, on some of the subjects new laws have been enacted. The subject and laws are as follows:

- The Factories Act, 1948.
- The Insecticides Act, 1968.
- The Wildlife Protection Act, 1972.
- The Water (Prevention and Control of Pollution) Act, 1981.
- The Forest (conservation) Act, 1980.
- The Air (Prevention and Control of Pollution) Act, 1981.
- The Environment (Protection) Act, 1986.

Among all the following Acts, environmental laws deals with all legal guidelines that are intended to protect our environment are discussed below:

The Factories Act, 1948

The factories Act 1948 came into force on 1st April 1949 was passed with the intention of safeguarding the health of workers and to promote safety and welfare of the workers employed in factories. The Act also makes provisions regarding employment of women and young persons (including children and adolescents), annual leave with wages etc. The Act extended to whole of India including Jammu and Kashmir. The main provisions of the act regarding health are cleanliness, disposal of wastes & Effluents, Ventilation and temperature, dust and fumes, overcrowding, lighting, drinking water, urinals etc. Besides health, the act also includes

provisions regarding safety. They are fencing of machinery; work on near machinery in motion, casing of new machineries, prohibition of Employment of Women and Children near cotton openers etc.

The Insecticides Act 1968

As the uses of pesticides are injurious to health of human beings and the environment as a whole, the Government of India enacted the Insecticide Act in 1968. This was enforced from 1971 to regulate import, manufacture, sale, transport, distribution and the use of insecticides with a view to preventing risk to human beings and animals. Several agencies such as the Central Insecticide Board, the pesticides registration committee, the pesticides environment pollution advisory committee, the central insecticide laboratory, the committee to ban/ restrict the use of pesticides, were created for effective enforcement of this act.

The Wildlife (Protection) Act, 1972

The Wildlife (Protection) Act, which was formulated and came into existence, is a landmark in the history of wildlife legislation. Wildlife was transferred from state list to concurrent list in 1976, thus giving power to the Central Government to enact the legislation. The Indian Board of Wild Life (IBWL) was created in 1952 in our country, which after the enactment of the Wildlife (Protection) Act actively took up the task of setting up Wildlife National Parks and Sanctuaries. The major activities and provisions incorporated in the act are as follows:

- It defines the wildlife related terminology.
- It provides for the appointment of wildlife advisory board, wildlife advisory board, wildlife warden, their powers, duties etc.
- Under the Act, comprehensive listing of endangered wildlife species was done for the first time and prohibition of hunting of endangered species was mentioned.
- Protection of some endangered plants like Beddome Cycad, Blue Vanda, Lady's Slipper Orchid, Pitcher Plant etc is also provided under the Act.

- The Act provides for setting up of National Parks, Wildlife Sanctuaries etc.
- The Act provides for the constitution of Central Zoo Authority.
- There is provision for trade and commerce in some wildlife species with license for sale, possession, transfer etc.
- The Act imposes a ban on the trade or commerce in scheduled animals.
- It provides for legal powers to officers and punishment to offenders.
- It provides for captive breeding programme for endangered species.

The Water (Prevention and control of Pollution) Act, 1974

The Water (Prevention and control of Pollution) Act, 1974, provides for maintaining and restoring the wholesomeness of water by preventing and controlling its pollution. Pollution is defined as 'such contamination of water, or such alteration of the physical, chemical or biological properties of water, or such discharge as is likely to cause a nuisance or render the water harmful or injurious to public health and safety or harmful for any other use or to acquire plants and other organisms or animal life.'

The salient features and provisions of the Act are as follows:

- It provides for maintenance and restoration of quality of all types of surface and ground water.
- It provides for the establishment of Central and State Boards for Pollution Control.
- It confers them with powers and functions to control pollution.

  The Central and State Pollution Control Boards are widely represented and are given comprehensive powers to advise, coordinate and provide technical assistance for prevention and control of pollution of water.
- The Act has provisions for funds, budgets, accounts and audit of the Central and State Pollution Control Boards.
- The Act makes provision for various penalties for the defaulters and procedures for the same.

The main regulatory bodies are the Pollution Control Boards, which have been conferred the following duties and powers:

Central Pollution Control Board (CPCB)

- It advises the Central Government in matters related to prevention and control of water pollution.
- It co-ordinates the activities of State Pollution Control Boards and provides them technical assistance and guidance.
- It organizes training programs for prevention and control of pollution.
- It organizes comprehensive programs on pollution related issues through mass media.
- It collects, compiles and publishes technical and statistical data related to pollution.
- It prepares manuals for treatment and disposal of sewage and trade effluents.
- It lays down standards for water quality parameters.
- It plans nationwide programs for prevention, control or abatement of pollution.
- It establishes and recognizes laboratories for analysis of water, sewage or trade effluent sample.

The State Pollution Control Boards also have similar functions to be executed at state level and are governed by the directions of CPCB.

- The Board advises the State Government with respect to the location of any industry that might pollute a stream or a well.
- It lays down standards for effluents and is empowered to take samples from any stream, well or trade effluent or sewage passing through an industry.
- The State board is empowered to take legal samples of trade effluent in accordance with the procedure laid down in the act. The sample taken in the presence of the occupier or his agent is divided into two parts, sealed, signed by both parties and sent for analysis to some recognized laboratory. If the sample do not

conform to the prescribed water quality standards (crossing maximum permissible limits), then 'consent' is refused to the unit.

- Every industry has to obtain consent from the Board (granted for a fixed duration) by applying on a prescribed proforma providing all technical details, along with a prescribed fee following which analysis of the effluent is carried out.
- The Board suggests efficient methods for utilization, treatment and disposal of trade effluents.

The Forest (Conservation) Act, 1980

The Forest (Conservation) Act, 1980, deals with the conservation of forest and related aspects. Excluding Jammu and Kashmir the act is adopted all over India. The Act covers under it all types of forests including reserved forests, protected forests or any forests land irrespective of its ownership.

Following are the salient features of the Act:

- The State Government has been empowered under this Act to use the forests only for forestry purposes. If at all it wants to use it in any other way, it has to take prior approval of Central Government, after which it can pass orders for declaring some part of reserve forest for non-forest purposes (e.g. mining) or for clearing some naturally growing trees and replacing them by economically important trees (reforestation).
- It makes provision for conservation of all types of forests and for this purpose there is an Advisory Committee which recommends funding for it to the Central Government.
- Any illegal non-forest activity within a forest area can be immediately stopped under this Act.

The Air Prevention and Control of Pollution Act, 1981

The salient features of the Air (Prevention and Control of Pollution) Act, 1981 are as the following:

- The Act provides for prevention, control and abatement of air pollution.

- In the Act, air pollution has been defined as the presence of any solid, liquid or gaseous substances (including noise) in the atmosphere in such concentration as may be or tend to be harmful to human beings or any other living creatures or plants or property or environment.
- Noise pollution has been inserted as pollution in the Act in 1987.
- Pollution control boards at the central or state or state level have the regulatory authority to implement the Air Act. Just parallel to the functions related to improvement of air quality. The boards have to check whether or not the industry strictly follows the norms or standards laid down by the Board under section 17, regarding the discharge of emission of any air pollutant. Based upon analysis report consent is granted or refused to the industry.
- Just like Water Act, the Air Act has provisions for defining the constitution, powers and functions of Pollution Control Boards, funds, accounts, audit, penalties and procedures.
- Section 20 of the Act has provision for ensuring emission standards from automobiles. Based upon it, the state government is empowered to issue instructions to the authority incharge of registration of motor vehicles (under Motor Vehicles Act, 1939) that is bound to comply with such instructions.
- As per section 19, in consultation with the State Pollution Control Board, the state government may declare an area within the state as 'air pollution control area' and can prohibit the use of any fuel other than approved fuel in the area causing air pollution. No person shall, without prior consent of State Board operate or establish any industrial unit in the 'air pollution control area.'

The Environment (Protection) Act, 1986

The Environment (Protection) Act, 1986, came into force on November 19th, 1986, the birth anniversary of our Late Prime Minister Indira Gandhi, who was a pioneer of environmental protection issues in our country. The Act extends to whole of India. Some terms related to environment have been described as follows in the Act.

- Environment includes water, air and land and the inter-relationships that exists among and between them and human beings and all other living organisms and property.
- Environmental Pollution means the presence of any solid, liquid or gaseous substance present in such concentration, as may be, or tend to be, injurious to environment.
- Hazardous substance means any substance or preparation which by its physio-chemical properties or handling is liable to cause harm to human beings, other living organisms, property or environment.

The Act has given powers to the Central Government to take measures to protect and improve environment while the state governments co-ordinate the actions. The most important functions of Central Government under this Act include setting up of:

- The standards of quality of air, water and soil for various areas and purposes.
- The maximum permissible limits of concentration of various environmental pollutants (including noise) for different areas.
- The procedures and safeguards for the handling of hazardous substances.
- The prohibition and restrictions on the handling of hazardous substances in different areas.
- The prohibition and restriction on the location of industries and to carry on process and operations in different areas.
- The procedures and safeguards for the prevention of accidents which may cause environmental pollution and providing for remedial measures for such accidents.

More or less all over the world different legislative measures have been laid down for the protection and conservation of environment. But the impact of these laws has not been very satisfactory. It has been noticed that legislative procedures never can bring satisfactory result in changing the attitudes and behaviour

of the human individuals who are mainly responsible for the degradation of the qualities of the environment in totality. Therefore, it has been well felt by the environmentalists and thinkers that to create requisite awareness for the protection of the environmental behaviour among the masses. For this education should be treated as the vital force.



LET US KNOW

- The wide concept **conservation** includes everything from the protection of wild life to the process of sustainable development.
- The objectives of the conservation of resources are maintenance of fundamental ecological process, preservation of bio-diversity etc.
- The important laws pertaining to be conservation and protection of the environment passed by the Government of India are- Wildlife (Protection) Act 1972, Water (Prevention and Control of Pollution) Act 1974, Forest (Conservation) Act, 1980 etc.



CHECK YOUR PROGRESS

Q1. Give the concept of conservation and protection of environment.

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Q2. Mention the Salient features of Water (Prevention and Control of Pollution) Act, 1974..

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Q3. Write short notes on- Article 48 A.

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10.3.2 Role of the Individual and Society Towards Environmental Conservation and Protection

Individuals are the most significant agents of environmental conservation and protection. Most of the environmental problems are caused by human actions on the environment. Therefore they should orient and educate themselves towards the issues and concerns of conservation of environment and nature. Individual role as consumer is also of great significance in the field of conservation of natural and environment resources. A brief outline of individual contribution towards natural conservation and protection may be presented below-

Conservation of Water

Water is said to be a life giving and life saving resource of man. Although the process of quick industrialization and urbanization has severely affected water pollution. Uneconomic and careless use of drinking water has often created water crisis in the cities. Lack of consciousness and bad habit of individual are also responsible for wastage and pollution of water. So, the individual steps to be taken in this regard may be presented below-

- Taps should not be kept open after washing, bathing and brushing etc.
- Water leakage should be checked and immediately repaired.
- Water control devise of the taps should be used for economic conservation of water at home.
- System for collecting rain water for use should be adopted.In other words rain water harvesting should be encouraged.
- Water should be economized while using in the garden.
- Soapy water should be reused for washing of clothes.

Conservation of Soil

All forms of biological growth and development are made possible from the soil. So, conservation of soil from its pollution and degradation is the vital responsibility of man who owns it. But owing

to the lack of knowledge in scientific ways and means of conservation of soil by the agricultural people, soil pollution appears to be a problem. In this regard specific role of individual may be presented below-

- While constructing individual houses, the existing trees should not be uprooted.
- We must grow different types of ornamental trees, herbs and trees in the garden and also grass in the open areas which will kind the soil and prevent its erosion
- Individual should develop the habit of planting shady trees on the roadside.
- Biological manure rather than chemical fertilizer should be used for agricultural purpose.
- Examination of soil before cultivation is necessary.

Conservation of Energy

Energy is the main resource for development of human civilization. Most of the activities of present day large and growing population require massive energy inputs. Hence the need for conservation of energy becomes all the more essential. Energy conservation is an attempt to reduce the amount of energy used for domestic and industrial purposes, particularly in the developed countries.

Every individual may help to minimize the problem through formation of good habit of saving energy at home. Individual role in this regard may be mentioned below-

- Lights and electrical gadgets should be turned off habitually when not in use.
- Energy of heat should be used from the natural resources like the sunshine when available.
- High voltage energy from heater should be used only when it is indispensible.

- LPG expenses should be reduced in cooking food by using solar cooker.
- To cut down intense heat in summer shady trees should be planted.
- Practice of using air condition in the winter season should be avoided by using woollen clothes.

Conservation of Wildlife

Man can live only when animals are allowed to live. There is a natural harmony and ecological balance that need to be established between human and animal world. Destruction of life of the wild animals by men must have to be stopped. So, conservation of wildlife is a moral responsibility of individual and society. Some of these responsibilities of individual towards the animals may be described below-

- Man should bring attitudinal changes in behaviour for love of the animals.
- Killing of wild animals by the poachers should be considered as illegal act that should be punished.
- Instead of killing the wild animals, they should be caught alive and kept in the zoo.
- Product derived out of the animal body like skin should be commercially banned.

Conservation of forest resources

Forests wealth are the invaluable resources of nature for economic development of a country. It can be conserved and preserved through responsible behaviour of man. Industrial needs of men can comprehensively served by the forest resources. For conservation and utilization of them, the individual and society play their responsible role. They may be mentioned below-

- Programme of plantation of trees in the forest should be undertaken with necessary aid and assistance of the government.
- Strict vigilance should be maintained individually and collectively for protection of the forest resources.

- Individuals should be aware of the rules and laws framed by the government on conservation of the forest products and should abide by them.
- Local community people and the forest department should cooperate in conserving the forest resources from the anti-social elements.
- People should be trained by the forest department how to conserve and preserve the forest resources.
- Forest security guards should be well trained and they should be well equipped with arms to detect illegal poachers and smugglers of the woods.

The role of the society in conserving and protecting the environment is very significant. It is important for us to realize that we are all part of the environment and it is we who have to take more care of flora and fauna both because they are beautiful and useful to us. So every one of us living on this earth must try to save animal and plant life. If we carefully look after our environment, then it will last our long as there is life on earth.

There are numerous examples of society playing vital role for the cause of environmental conservation and protection through various measures. The **'Chipko'** movement by the people of Uttarakhand region of India is an extra ordinary movement of the poor for the conservation of resources. Chipko meaning 'to hug' in Hindi, was started as movement of woman determinedly hugging trees to prevent them from being cut. It accomplished great success in at national as well as international level. The Narmada Bachao Andolan lead by Ms. Medha Patkar is another brilliant example of society movement playing great role in conservation of resources. Thus, the society can play very important role in conservation and protection of our environment for sustainable development and meaningful existence of man on earth.



LET US KNOW

- The role of the individual in the conservation and protection of the environment is very significant.
- Efforts to conserve water should start with every individual water resources need to be conserved.
- We as individual should also take measure to conserve energy.
- Society plays an important role in conserving and protecting the environment.



CHECK YOUR PROGRESS

Q 4: Mention any three measures to conserve water.

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Q5: Briefly explain the role of the society in conserving and protecting the environment. (Write within 50 words).

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ACTIVITY 10.1

Discuss the role of women in conserving and protecting the environment. Give your own comments.

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10.4 LET US SUM UP

- Conservation of environment refers to the planned management of the total environment including natural resources of particular eco-system in order to prevent exploitation, pollution, destruction and to ensure the future use of the resources and to attain sustainable development.
- Conservation of nature may be possible through protection of nature.
- Several laws pertaining to the conservation and protection of environment have been formulated such as Article 48 (A), Article 51A (G) etc.
- The constitution of India has included environmental protection and conservation as one of the fundamental duties of the citizens of Indian Republic. Gradually the parliament and State Legislatures are empowered to legislate the Central, State and Concurrent lists of subjects like noise control, land improvement, irrigation, town planning, slum clearance, housing schemes, pest control, water pollution, forests, wildlife, recreation etc. As a result, on some of the subjects new laws have been enacted. The subject and laws are as follows:
    - The Factories Act, 1948.
    - The Insecticides Act, 1968.
    - The Wildlife (Protection) Act, 1972.
    - The Water (Prevention and Control of Pollution) Act, 1974.
    - The Forest (conservation) Act, 1980.
    - The Air (Prevention and Control of Pollution) Act, 1981.
    - The Environment (Protection) Act, 1986.
- Individuals are the most significant agents of environmental conservation and protection.

- One must take measures to conserve our bio-diversity like encouraging plantation of trees, preventing deforestation etc.
- We as individuals should also take measures to conserve energy, soil, water, wildlife etc.
- Concept of sustainable development maintains that it is possible to achieve sound environmental planning without putting a break on human aspirations for future social improvement. It aims at improvement of living standard and quality of people's life both now and for the future generations.
- The UN Conference on environment held in Rio-De-Janerio in 1992, with its Agenda 21, had pledged the support for movement towards this sustainable development.
- Society has to play a crucial role in the maintenance of the balance of nature and in the conservation of its resources for sustainable development.



10.5 FURTHER READING

1) Reddy, K.P & Reddy D.N: Environmental Education, Neelkamal Publication, pvt, ltd, Hyderabad.

2) Sharma, R.A. : Environmental Education, R. Lall Book depot Meerut(2005)



10.6 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: The word 'Conservation' literally goes to mean the vast natural and biological resources of the earth should be kept unchanged. The term 'Protection' implies that man should remain

responsible and take initiative to put a stop to senseless destruction and degradation of the natural resources. Although in the broad sense 'Conservation and Protection' may be said as the relative terms. Conservation of nature may be possible through protection of nature.

Ans to Q No 2: The salient features of the Water (Prevention and control of pollution) Act 1974 are as follows-

- It provides for maintenance and restoration of quality of all types of surface and ground water.
- It provides for the establishment of Central and State Boards for Pollution Control.
- It confers them with powers and functions to control pollution.

Ans to Q No 3: Article 48-A of the constitution of India provides- ""The State shall endeavour to protect and improve the environment and to safeguard forests and wildlife of the country".

Ans to Q No 4: Three measures to conserve water are as follows:

- Taps should not be kept open after washing, bathing and brushing etc.
- Water leakage should be checked and immediately repaired.
- Water control devise of the taps should be used for economic conservation of water at home.

Ans to Q No 5: The role of the society in conserving and protecting is very significant. It is important for us to realize that we are all part of the environment and it is we who have to take more care of it plants and animals needs to be saved, both because they are beautiful and useful to us.