UNIT 24 SOCIAL AWARENESS ABOUT ENVIRONMENT

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24.1 INTRODUCTION

Government as well as people are gradually becoming aware of many problems related to environment. This is a byproduct of rapid industrialisation and developmental projects. However, environmental deterioration is so great in this country as well as the world over, that more systematic efforts are necessary to develop awareness and expertise about various aspects of this problem.

In this unit, we first discuss the causes of ignorance and wrong notions about environment. Once these causes are known, the areas of ignorance can be identified. We also discuss the matters related to agriculture, industry and health. In order to enhance awareness of environmental matters and problems, various ways and means have to be used. These ways and means include formal education of the students in schools and colleges, use of various media like radio, TV, newspapers, etc. for the general public and specific orientation and training programmes for the functionaries and opinion leaders working in the area of environmental management. You will be familiarised with some of these here. In the next unit, you will study about the awareness level about environment and suggestions to raise the same.

Objectives

After reading this unit, you will be able to

- describe the major causes of ignorance and indifference about environment among the general population,
- give some examples of misconceptions about environmental conservation and management,
- argue that social awareness is necessary for environmental management, giving examples from agriculture, industry and health,
- suggest ways to disseminate information about environment among the different segments of the population.

24.2 PRESENT STATUS OF SOCIAL AWARENESS

Social awareness about environment is a recent phenomenon. Initially environment referred only to the physical, chemical and biological aspects. Now-a-days, it also

includes the manmade social, cultural, economic and technological aspects. All these aspects are interrelated in a complex manner and one cannot look at them separately. Since 1950 limited efforts have been made to create awareness about environment. These efforts were mainly directed at conservation and preservation of environment. As history shows, this approach did have some effect as far as creation of awareness amongst the 'elite group' is concerned. But this movement has not become a mass movement even till today.

Awareness about environment is necessary to facilitate conservation and regeneration of the environmental resources. Preserving the environment is the need of the hour. Restoring degraded environment, though comparatively difficult, is an equally necessary measure. It is in this context that ideas have started emerging on the creation of social awareness about environment. It is felt that rational use and continued improvement of the environmental potential for the betterment of mankind requires a broad and dynamic view to take care of the many aspects of this problem.

24.2.1 Causes of Ignorance and Absence of Informed Opinion

Some literature is available on environmental education and social awareness. This indicates that environmental awareness is on the increase and strategies for developing it are being tried. However, the exact position about the present level of awareness is not known. The general public is not much aware of many environmental problems, because the decision making as well as the decisions about environmental education rarely spread beyond the limited circle of the so called 'planners' and the elite group of the society.

This problem is more acute in the developing countries which already suffer from the effects of poverty and illiteracy. Both these factors contribute to ignorance. Environmental matters are an abstract talk for the large masses who must concentrate only on the fulfilment of their daily needs. These people are hardly able to attend to any social issue under conditions of deprivation of the basic needs.

Historical Background: When one refers to environment in the developing countries one is referring to something which is the result of a historical process of exploitation and struggles. By and large, the natural resources got depleted as a part of colonial exploitation. Later, in the post-colonial period, exploitation of resources continued as a result of developmental efforts of the native people. Industrialisation led to encroachment of urban capital on the environmental resources all around including the remotest rural and tribal areas.

Contradictions created by the Concept of Development: A new trend observable in developing societies is the contradiction of development for those with limited access to resources and the poor. The development process brings them closer to the market and encourages commodity production and the sale of their labour for cash. On the other hand, the native pattern of living becomes incompatible with the new demands. Self-sufficiency in food or energy breaks down. The principle of division of labour makes people more dependent on others and on public services. Migration from villages to cities further complicates the problem. Urban slums are a result of this process. The balance that existed between man's needs and the environmental resources breaks down and environmental degradation becomes inevitable. This phenomenon can be seen around any big city anywhere in the world. Development and degradation have generally gone together.

Maintenance of Balance between Needs and Supplies: Environmental management is basic to the natural process of human adaptation. Survival of a species depends on its ability to maintain a balance between its demands and environmental resources. Primitive societies developed ways and means so that they could achieve this. These ways became cultural patterns. The wisdom of cultures lies in maintaining a balance between needs and supplies and ensuring continued adaptation.

Culture defined the ways of dealing with the environment so that negative balance could be avoided. Thus culture and ecology were complementary partners in the development of civilisation. It may be some time before historians observe that the present breakdown of ecological balance is essentially a breakdown of civilisation. The concept of culture and its role and relevance were discussed more elaborately in Block 1:

Knowledge of historical processes, development and ecological balance is not common at all the levels in the society. Our educational system has largely failed to relate the curricula to real life problems. Some history or economics studied at some level or the other does not bring the student face-to-face with the above problems. The subject of environment is yet to gain place in schools and colleges. Besides this, there are some further specific reasons for the wide spread ignorance in the field of ecology and environment. We are giving some of these below:

- i) Courses in medicine, engineering, technology, agriculture, economics or development have by and large failed to impart knowledge of environmental matters as an essential component of their curriculum.
- ii) Those planning development or taking decisions are not trained or educated to foresee the environmental consequences of their decisions. This is true of administrators and politicians alike. Perhaps that is how the pesticide plant of the Union Carbide got located so near to a thickly populated area in Bhopal.
- iii) Sometimes politicians, opinion leaders or administrators purposely conceal information from the public or mislead them for their own reasons. This is seen in case of the Narmada Valley Project at present. In the past, soon after Independence, the priority was to increase production of food grains. Use of fertilisers and pesticides was encouraged disregarding the adverse consequences of their indiscriminate use.
- iv) People starting their own business or industry are guided entirely by considerations of economic gain to themselves. They shun information about environmental concerns due to their callous disregard for the interests of society or environment. This is so in the case of several chemical plants that keep pouring poisons in the nearby rivers.

24.2.2 Common Misconceptions and their Causes

The widespread ignorance about environment is a fertile ground for misconceptions and superstitions in this field. Some of these are:

- i) Diseases are caused by demons or Gods and are not due to infections.
- ii) Famines, droughts or floods are forms of punishment given by Gods for the sins of the people.
- iii) Rainfall has something to do with God's grace.
- iv) Cities are polluted whereas villages are not. In fact, burning cowdung and wood causes smoke which is equally polluting.
- v) Cities are polluted because of industrial exhausts. In fact the major contributor to city's air pollution is automobile traffic.
- vi) It is believed that forests are disappearing because of industrial and urban needs. The growing rural population itself burns most of the wood in the vicinity by cutting down trees and not caring to replant any.
- vii) Misconceptions exist about who is really responsible. For example, in the case of Union Carbide at Bhopal, was it the industrialist (the Company), was it the Government of Madhya Pradesh, was it the Bhopal Municipal Corporation or was it someone else to be blamed? Or were they all responsible? Different persons hold different opinions.

Lack of correct information leads to misconceptions. Till edcuational programmes at all levels do not give this subject its due importance, such misconceptions may continue.

SAQ1

- a) Fill in the blanks in the following sentences:

 - ii) Misconceptions about environment are due to and
 - iii) The main drawback of our educational system regarding environment is

b)	Below are given some statements related to environment. Some of these are
	misconceptions and some are factual statements. Classify them accordingly.

- i) Rainfall has something to do with god's grace:
- ii) Some diseases are caused by demons rather than infections:
- iii) The major contributor to city air pollution is automobile traffic:
- iv) Famines, drought or floods are punishment for sins of the people :
- v) Burning cowdung and wood causes smoke which is polluting:

24.3 NEED TO IMPROVE SOCIAL AWARENESS FOR ENVIRONMENTAL MANAGEMENT

There is a Chinese proverb which says "If you plan for one year, plant rice, if you plan for 10 years, plant trees, if you plan for 100 years, educate people." The creation of social awareness for environmental management has to follow this strategy if the situation is to be improved. So far, environment has been a subject which has been very commonly discussed by media men, counting more upon the doom's day. Such sensational approaches often hit the headlines. However, an attitude which would facilitate awareness about the preservation and regeneration of environment has been lacking.

There is a need to develop a strategy for the management of environment. This should be expressed it in a language which will appeal to the common man in a creative manner by establishing the relevance of environmental education to their day-to-day lives. Man's basic needs are food, shelter, clothing and recreation. The concern about the environmental education arising out of food production, enhanced ways of earning livelihood, effect of technology on day-to-day life and also the impact of all these developments on health will be more relevant to a common man.

24.3.1 Concerning the Agricultural Productivity

No one questions the role of forests in maintaining the environment, but at the same time no one has ever questioned the need for agriculture. Agriculture was the first activity in the evolutionary process of present civilisation. The concern about environment has come up here because of the rapidly changing balance between the forested and cultivated land. In India, today, we have 145 million hectares of cultivated land while the protected forest area is believed to be 35 million hectares. When man took to agriculture, there was very little fear of adverse effect on environment. The traditional agriculture has been based largely on renewable resources of energy—solar energy, rain fall, animal residues, waste products and the microbial activity which decomposes them.

The concept of industrial inputs in agriculture like chemical fertilisers, pesticides and farm machines were totally absent. The present day food needs compelled mankind to modernise agriculture and make it dependent on industrial inputs and large amount of energy. Coupled with this situation, there is population explosion in most of the developing countries including India. Hence, one cannot say that if new methods of agriculture are causing problems one should revert back to traditional system. Before one talks about the possible solution, it is better to have an idea of the process which has led to the present situation.

1) Land Use Patterns

In India the land use planning has been guided by economics. Due to pressures of expanding population, soil is cultivated more and more intensively which poses a threat to productivity. Careless use has resulted in damage to the soil and consequent reduction in quality and quantity of woodlands and forests. The problem has been further aggravated due to soil erosion and deforestation. For various reasons, the top soil is also lost or damaged year after year. This has adverse effect on agricultural productivity.

At present no consolidated and reliable statistics and information are available to start a well planned policy of land use.

2) Water Resources

Water is an integral input into agricultural productivity besides being a major life support system. Its misuse can cause degradation as well as erosion, affecting lives of people and crop yields.

India provides a diversified picture of water resources. Most of the north Indian rivers are augmented by melting of snow but southern rivers do not have this advantage. These are dependent on land surface management. Nearly 70% of the area in India is subjected to water stress, i.e., water scarcity or floods. This is further aggravated by:

- i) ignorance about nation's water capacity; the common man, even people who matter, consider it to be abundant and unlimited.
- ii) the concept of water conservation and management is still alien to us.

The chronic water shortage in Tamil Nadu in recent years is a warning signal for the years to come.

3) Irrigation Patterns

Irrigation schemes have been developed as an answer to unpredictable rain pattern in India. Today about 44.7 million hectare area is irrigated. On the one hand, one is not sure about returns in terms of yield, i.e., financial returns commensurate with investment. On the other hand, large areas which have become submerged under reservoirs got waterlogged or were destroyed by construction of roads and colonies which are the side effects of these projects. This has resulted in less cultivated area, displacement of local persons and other problems related to forced migration.

4) Issue of Social Awareness

The above discussion shows that the concern with increasing agricultural productivity is widespread in terms of its implications as well as the categories of people involved. A farmer or a villager, the immediate persons to be affected, are as much involved in the processes of destruction and regeneration, as is the planner at the national level. Hence the concern is seen to be both at global as well as at microlevel.

24.3.2 Concerning Industry

Green revolution in a way is the result of industrial development. Demand for more food resulted in the application of science and technology for higher production. Related industries like fertilisers, chemicals, foundaries, etc. came into existence. Though the technical process rests on the concentration of capital and technology in the hands of a fewer people. But its external effects are carried far afield. This development has resulted in consumption of valuable natural resources at a faster rate on the one hand, and the production of pollutants on the other. The consequences are:

1) Increased waste production and pollution

As industrialisation increases, the use of polluting materials grows at a fast rate. The developing countries suffer from the problems of ill-management of polluting products. The developed countries suffer from the affluence causing the pollution. Examples are the large number of vehicles on the roads, throwing of waste industrial products in the rivers, no proper system of dealing with toxic substances, and disproportionate volume of consumer wastes like plastic containers, tins, etc.

2) Cost of Pollution

Not only is pollution a problem in terms of public health, it also creates problems in terms of the expenditure on pollution abatement and loss of quality and quantity of resources. It is a common experience that the green belts around industrial areas are becoming a luxury. Either one suffers from the ecological imbalances or the extinction of rare species or one pays the cost for maintaining national parks and wildlife sancturies to maintain the balance.

Industrialisation has exposed humanity to more and more metallic impurities in the environment. It has also resulted in urbanisation creating slums and thus affecting not only the general health of the people concerned but quality of life of the urbanites in general.

24.3.3 Concerning Health

If one takes the above argument further, the health concerns have been created because of industrial development on one hand and the ecological imbalances caused

by the need for higher agriculture productivity on the other. Although the ends are not bad, the means to achieve then have been ill-planned and ill-conceived. Some of the concerns in health have arisen because of the polluted air, unhealthy living places and unhealthy food that one consumes. Development, modernisation and urbanisation lead to complexity of life and increase in psychological strain affecting the community health in turn.

1) Urbanisation

The worldwide tendency of people to crowd together has resulted in higher population densities in many cities. People have migrated from rural areas in search of alternative sources of livelihood. This unplanned growth has resulted in poor quality of life. The urban population has grown much faster than the facilities for water, light, housing and food. Job scarcity over the years has further added to the unhealthy living standards. Concentration of wastes on the outskirts of cities has resulted in the accumulation of wastes which could not be decomposed in a natural manner. This has created polluted air and many health hazards.

2) High Incidence of Diseases

Poor environmental sanitation and inadequate supply of safe drinking water is a major factor leading to diseases in the cities, specially in slum areas. The capital city of Delhi has faced this problem in the recent past and newspapers are full of such news from other parts of the country. Migrants who come to live in cities are suddenly confronted with environment very much different from rural areas. As you have read in Block 4 of this course, this has also caused many emotional problems resulting in high rate of crimes, delinquency and mental diseases.

3) Malnutrition

As mentioned earlier, unhealthy living conditions and uncertain source of income have caused problems of malnutrition in the urban sectors, contributing to health problems. This is further aggravated when developing countries do not have a national system of health. As a result, the medical services are also not available or inadequate.

24.3.4 Other Areas of Concern

In addition to the areas of agriculture, industry and health, there are some others also that need attention. These are: environmental ethics; environmental laws; public administration and environment; forests, woodlands and grasslands; wildlife; birds; population dynamics; urban settlements. Most of these matters have been discussed in earlier units in this course. Social awareness is necessary in all these matters.

24.3.5 Planning Intervention

Maintaining the quality of life amidst population explosion, increased consumption and increased waste accumulation calls for disciplined human decisions. Human interventions are inevitable at all levels from the local to the national. These interventions cannot be ad hoc and left to chance. It must be emphasised that these need to be guided by:

- 1) Ethics of relationship of men to environment in which the general welfare supercedes self-gains and conservation is preferred to abuse.
- 2) The direct beneficiaries of the intervention be held responsible for the control of degrading effect and restoration of degraded environment.
- 3) The general public be made conscious any unavoidable effects that may result from encroachments on environment and be helped to tackle them so that the adverse effects may be minimal.

These safeguards are possible only if a multi-faceted approach is taken and directed at all strata of the society through a hierarchical national network.

SA a)	Q 2 List the major areas of environmental concern:	
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ь)	What are the two major problems related to industry?	About E
c)	What are the two major problems related to health?	

24.4 METHODS TO DISSEMINATE ENVIRONMENTAL INFORMATION

The education for environmental awareness is essential for the younger generation as well as for the older generation. It also needs to cover both urban and rural populations. The beneficiaries at the grassroot level are as much a clientele for environmental education as are the policy makers, the decision makers and the project implementers. Hence, environmental education needs to be conveyed to these different categories of people through formal education systems, nonformal education systems and the use of mass media.

24.4.1 Among Students Through Education

Education in India is mainly a state subject and the responsibility is that of the Ministries of Education at the Centre and the States. The education system is divided into two major stages, namely, school and university education. Let us see what is the place of environmental education at these two levels.

Stage-wise content:-

School stage: Four components are required to build up the social awareness about environmental education at the school level. These are awareness, exposure to real life situations, concepts of conservation and sustainable development. These four considerations can be further adjusted in terms of the requirements at primary, secondary and higher secondary levels.

Awareness involves making the individual conscious about the physical, social and aestheic aspects of environment. One has to appreciate the fact that man is only one of the numerous species on earth and is linked with the life support systems with six elements: air, water, land, flora, fauna and sunlight. These elements are crucial to the well being of human kind as well as other species.

Real-life situations bring men closer to the environment. These conditions are location—specific, with different environmental aspects being emphasised in different states. For example, states like Maharashtra and Karnataka may need the emphasis on air and water pollution due to industrial wastes, while the students in the Himalayan belt would need exposure to real-life situation related to the negative impacts of deforestation and grazing. Agriculture based areas may lay emphasis on pollution due to agricultural practices.

As far as conservation and sustainable development are concerned, the main focus would be on utilisation of resources and not on exploitation. Utilisation stands for long-term sustainability of the resources. As contrary to the earlier notion of resources like—water, soil and air being unlimited, the emphasis would be on their finite nature and thus the limits to the growth of living systems. Sustainable development aims at utilisation of resources not only by the present generation but their preservation for the future generations also, so that life can be sustained for a long period of time. Population growth and planning also form a part of this thinking.

At the primary stage, emphasis will be more on awareness followed by real-life situation and conservation. This would prepare the child to understand the need for sustainable development at a later stage. Attempt will be only on sensitising child to environment. From the lower secondary stage onwards the focus on awareness will begin to decrease in favour of increased knowledge about real-life situations, conservation and sustainable development. And at the higher secondary stage, the

conservation will get a priority over other factors. The methodologies will range from observation to practical experiences and action-oriented feedback. Khoshoo (1986) has summarised the school as well as college education on environment as follows (Table 24.1).

For the school stage, National Council of Educational Research and Training (NCERT) has done substantial work in designing syllabi, developing suitable text books and support materials like guide books, charts and video tapes.

University Stage: Environmental education at this stage is being looked after by the University Grants Commission. At present, environment finds a place only through the biology courses and there is no holistic approach. University education has three major components—teaching, research and extension, the last being the weak link. The various aspects about environmental education which can be emphasised at the post-graduate level are grouped as follows: environmental engineering including subjects like architecture, civil engineering, town planning including human settlements, slum improvement, industrial design, conservation and management dealing with land use, forestry, agriculture, energy, wastes etc.; environmental health which will take care of public health and hygiene, sanitary and chemical engineering, occupational health and safety related boimedical sciences; social; ecology covering topics like human ecology, social planning, community organisation, environment effects, etc. There is a need to design new courses in these areas with proper advocacy systems to attract more and more people to this type of multi-disciplinary education. More important is to share this knowledge with the community at large.

Table 24.1 Summary of School and College Education on Environment

Stage	Objectives	Content	Teaching Strategy
Primary	Awareness	Surroundings from home to outdoor situations	Audio-visual and field visits
Lower Secondary	Real life experiences, awareness and problem identification	As above and general sciences	Classroom teaching, practicals, and field visits
Higher Secondary	Conservation, assimilation of knowledge, problem identification and action skills.	Science based and action oriented work	Classroom teaching, practicals, and field work
Tertiary/ College	Sustainable development, based on experience with conservation.	College/University based on Science and Technology	Classroom teaching, practicals and action oriented field work.

24.4.2 Among General Population Through Various Media

So far we have been dealing with the clientele which are well defined and within the boundaries of formal education system. But there is a need to cut across the boundaries of illiteracy and reach the masses. This can be done only through the channels of adult education. Though programmes for adult education are already in progress and are duly emphasised by the New Education Policy, the time has come to emphasise environmental education for sections like women, tribals, agricultural labour, slum dwellers and residents of drought-prone areas. The neoliterates from these groups will help to spread the environmental message to the grassroot level. Voluntary agencies have played an important role in adult education apart from the Directorates of Adult and Continuing Education. Some methods for creating environmental awareness are:

- 1) Incorporation of topics in regional languages and local dialects in the primers of adult education programmes.
- 2) Information packs like posters, slides and audio-visual materials which can be utilised by the adult education centres as well as by the workers of other developmental agencies like agricultural extension services and primary health centres.
- 3) Special exhibitions in rural areas at the time of fairs and festivals.

Ours is still a society where information spreads through personal encounter and by word of mouth. The audio-visual media have certain limitations in a society like ours.

But media provide use and views for the community leaders and opinion makers who in turn influence the beliefs and attitudes of others. The environmental education in formal and adult education programmes needs to be supported by the media. For a literate population, one alternative is the print media like newspapers and magazines. The recent programmes by Doordarshan on "Virasat" exposed the public to the negative effects of development and ecological imbalances and did have some educational inputs in terms of the causes and solutions. Recently the programme "Race to Save the Planet" is being telecast which provides a global overview of the environment. What we need today is a media policy where a deliberate attempt is made to:

- i) create awareness about environmental matters;
- ii) enable exposure to real life situations;
- iii) acquaint with the conservation needs, problems and effort; and
- iv) acquaint with the philosophy and practice of sustainable development.

Another problem is the language. Most of these programmes are either in Hindi or ir English which are not easily understood by many people. But it is possible if the output of these national media is supported by specific programmes in the local language so that masses can be educated.

24.4.3 Among Functionaries and Opinion Leaders Involved with Environmental Management

There are various kinds of people engaged as functionaries in environmental management. They may be government officers at various levels and in various departments like irrigation, power, agriculture, industry, health, town planning and so on. There are voluntary organisations also working actively in these areas. Politicians and social workers also get involved in environmental issues from time to time. Those functionaries and leaders who are concerned with critical decisions should be given necessary orientation and training from time to time through carefully designed courses at their training institutions or in specialised institutes. The National Institute of Rural Development can play an important role as far as rural functionaries are concerned. The university departments of Environmental Studies/Sciences can also undertake such orientation or training for specific groups. All state governments have their staff training colleges and programmes. Environmental education should become a necessary part of their curricula. The Department of Environment of the government should have a list of clientele group for systematic orientation. They should plan a series of publications for mailing to these people regularly. It should be the responsibility of the functionaries and opinion leaders to first get educated in these matters and pass this information on to other levels.

SAQ3

The objectives and contents of the courses on environment at various levels of education differ. In the following table different levels of education are given. You have to fill the objectives and contents.

Stag	ge			Objective	Conte	ent
a) i	Primary					
b) I	Lower Secon	ndary				
c) ł	ligher Secon	ndary				
d) T	Fertiary (col	lege)				
SA a)		nent. \	Write a	few lines about th	used to educate peop e one you think wou	
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	b)	leaders regarding environmental management.

24.5 NON-GOVERNMENT ORGANISATIONS (NGOs)

NGOs are very important agents of change as far as environmental education is concerned. NGOs also provide a very valuable channel for feed-back. No government can achieve concrete results if its policies and programmes are not supported by voluntary agencies. Out of about 187 NGOs, 129 have been involved in environmental education and awareness, 56 in nature conservation, 47 in pollution control, 46 in afforestation and social forestry, 28 in floristics and faunal studies, 11 in rural development, and 10 each in wildlife conservation and waste utilisation, and 9 in eco-development. Most of these have been educationally oriented.

24.5.1 Role of NGOs in Imparting Environmental Education

The main ways in which voluntary agencies can be helpful in this respect are:

- to aid and advice the Government
- to act as the eyes and ears of the Government; and.
- to educate the people at large and to create general awareness in favour of conservation.

For example:

- i) NGOs can constitute a valuable source of information and could be responsible for collection, collation and presentation of such information on an on-going basis to Government agencies.
- ii) NGOs can form action groups to help Government Agencies at Central, state, district and village levels in the implementation of Action Plan.
- iii) NGOs can act as pressure groups to force action where the political and administrative systems are inactive or ineffective.
- iv) NGOs can advise the Government on the weaknesses of existing legislation or administration and recommend measures for strengthening or improving these systems or their performance.
- v) NGOs can undertake the education of the general public towards wildlife conservation and play a major role by providing a range of educational and motivational aids as well as participate directly in public education.
- vi) Research is another area in which the NGOs can contribute usefully. The Bombay Natural History Society (BNHS) has been playing an important role in this respect, specially in the field of bird ecology.

Management

vii) Likewise, NGOs can bring out useful publications at popular and scientific levels e.g. the BNHS Journal, WWF Newsletter, 'Cheetal', 'Sanctuary' magazine etc.

Let us now discuss the roles of some of the important NGOs e.g. Chipko Movement, Appiko Movement, Bombay Natural History Society (BNHS), Kerala Sastra Sahitya Parishad, WWF and Kalpa Vriksha.

24.5.2 Some Important NGOs

Kalpavriksh (KV)

This organisation started in 1979 as a movement opposed to the destruction of Delhi's green areas. The main functions of KV are to inculcate understanding and concern on environmental issues, especially among the youth, to conduct research in environmental problems; to compaign on environmental issue; to evolve a holistic environmental perspective. KV is developing workbooks and other material on environment for the school level, conducting research on environmental subjects, such as an impact assessment study of the Narmada Valley Project, pesticide use in India, air pollution in Delhi, and mining activities in Dehra Dun district. KV is functioning as a resource group for NCERT and other agencies on environmental education.

Kerala Sastra Sahitya Parishad

The Kerala Sastra Sahitya Parishad, has over the last three decades, grown into an important national institution with a membership of over 25,000 with around 900 units spread over the state of Kerala. The activities of the Parishad encompass ecodevelopment, creating an awareness on water and energy conservation, encouraging the use of non-conventional sources such as smokeless chulhas. It has several periodicals and publications to its credit to popularise science and to generate scientific outlook among all sections of the people. It has made creative use of folk arts in its programmes. It was also awarded Indira Gandhi Paryavaran Puraskar for 1988 in acknowledgement of its outstanding work for the protection of the environment.

World Wide Fund for Nature-India (WWF India)

WWF earlier called as World Wild Life Fund, commenced activities in 1970 in Bombay. This organisation has approximately 200 volunteer associates and 10,000 subscriber supporters. The major activities of this organisation are conservation of the country's natural heritage through support to research, field project, education and training, to raise funds for conservation.

Bombay Natural History Society (BNHS)

It started work in September 1883 in Bombay. Now BNHS is truly important national institution with a high international reputation. Through its systematic and scientific studies, the society has contributed significantly to increasing knowlege of our mammals, birds, reptiles and other fauna and flora.

BNHS has taken a significant part in the compaigns for conservation of our natural heritage, notably for saving the invaluable tropical forests of Silent Valley in Kerala. The society's achievements have aroused public awareness of the need for preservation of nature and have helped the country in legislating for the protection of wildlife.

The Indira Gandhi Paryavaran Puraskar for 1987 was awarded by the Government of India to the Society in acknowledgement of the outstanding work done by it for nature education, research and conservation of the environment.

Chipko Movement

The Dasohli Gram Swarajya Mandal in Gopeshwar, which pioneered the now world-famous Chipko Movement, is a group which progressed from development work to activism and typifies the story of most development groups. In the field of environment, the afforestation work of the Chipko Movement as today noted at all levels of government. The Chipko Movement brought a country wide general consciousness about the importance of conserving forest and the trees for development. The Chipko's plan in fact, a slogan of planting five Fs—food, fodder, fuel, fertiliser, and fibre trees to make communities self sustained in all their basic

Appiko Movement

This movement started in late 1983 in Karnataka. Appiko means "to hug". The first Appiko was sparked off on September 8, 1983 by the forest department's felling of trees in Salkane forest in Sirsi district. Appiko's aim is to utilise the people's energy to protect and plant trees and to teach the people to minimise the use of forest resources Appiko volunteers do not want a total ban on felling. But there should be rules and restrictions, e.g. local people should be consulted when trees are marked for felling and trees within 100 metre of a water source and on a slope of 30 degrees or above should not be cut.

SA	Q 5
a)	Write three important ways in which voluntary agencies help the government.
	•••••••••••••••••••••••••••••••••••••••
þ)	Which two NGOs have received Indira Gandhi Paryavaran Puraskar?
c)	Which two movements are emphasising to promote afforestation?

24.6 SUMMARY

- Environmental conservation and regeneration are the emerging concerns for one and all. These should not be seen as someone else's responsibility. The results are of consequence to all of us across all age groups and social strata.
- The nation today needs a well developed policy on environment. This would mean
 an awareness at nation-wide level. This would also mean well-planned action. For
 this, it is necessary to understand the causes of ignorance about environment and
 the misconceptions about it.
- In India, ignorance and misconceptions prevail because of illiteracy on a large scale, lack of proper orientation and training of functionaries and leaders, and lack of organised effort on the part of the educational system to address these problems systematically.
- Environmental matters of vital concern relate to the areas of agriculture, industry and health. Knowledge about these and such other areas can be imparted to the concerned people through various educational programmes such as formal education at school and college levels, non-formal education at adult level, and special orientation and training of the functionaries and opinion leaders. Mass media can play a vital role in this matter. It should be the concern of the recipient to seek this knowledge rather than waiting to be exposed to it.

24.7 TERMINAL QUESTIONS

- 1) What are the major causes of ignorance and indifference about environment among the general population, particularly in developing countries?
- 2) Why is social awareness about environment necessary? Illustrate your answer giving examples from agriculture, industry and health.
- 3) List the different kinds of clientele for environmental education and suggest the different ways of imparting environmental education.

- 4) Below are given the names of some NGOs. Write important functions performed by these to create educational awareness.
 - i) BNHS
 - ii) Kalpa Vriksha
 - iii) WWF
 - iv) Appiko

24.8 ANSWERS

Self Assessment Questions

- 1) a) i) poverty and illiteracy
 - ii) ignorance and lack of information
 - iii) it does not relate the curricula to real life problems
 - iv) historical process, development and ecology.
 - b) i) Misconception
 - ii) Misconception
 - iii) Factual statement
 - iv) Misconception
 - v) Factual statement
- 2) a) Agricultural productivity, Industry and Health
 - b) increased waste production and pollution and cost of pollution
 - c) Urbanisation and malnutrition.

3)

Stage	Objective	Content
a) Primary	Awareness	Surroundings from home to outdoor situation
b) Lower Secondary	Real life experience, awareness and problem identification	As above and general science
c) Higher Secondary	Conservation problem identification and skill	Science based and action oriented work
d) Tertiary (college)	Sustainable development based on experience with conservation	College/University based on Science and Technology

- 4) a) Posters, slides, environmental materials which can be utilised by adult education centre, special exhibitions in rural areas at the time of fairs and festivals.
 - Special exhibitions in rural areas seem to be most effective medium for rural population in India because these exhibitions which are organised on the occasions of fairs and festivals can provide direct exposure to environmental problems. These exhibitions also provide motivation to rural people.
 - b) i) In staff training college of the state governments environmental education should be a necessary part of their curriculum.
 - ii) The department of environment of the government should have a list of clientele group for systematic orientation.
 - iii) They should plan a series of publications for mailing to these people.
 - iv) It is the responsibility of functionaries to get educated in these and pass this onto other levels.
- 5) a) i) to aid and advise the Government
 - ii) to act as the eyes and ears of the Government
 - iii) to educate the people at large and to create general awareness in favour of conservation.
 - b) Kerala Sastra Sahitya Parishad and Bombay Natural History Society.
 - c) Chipko Movement and Appiko Movement.

Terminal Questions

A) 1) In developing countries, like India, two major causes of ignorance among general population are poverty and illiteracy. The people who cannot fulfil their daily needs, cannot think about environment. Moreover, decisions regarding environmental management are made by limited people i.e., planners and the elite group of the society.

2) The social awareness about environment is necessary because ignorance and indifference about environment lead to misconceptions and superstitions. The social awareness about environment will help in improving the agricultural productivity, industrial developments and health.

Agriculture: A farmer or a villager, who actually does farming is as much involved in the process of destruction and regeneration as is the planner at the national level. If the general public knows about land use patterns, water resources, irrigation patterns, use of fertilisers, pesticides, renewable sources of energy, then it will help in improving the agricultural productivity.

Industry: Awareness about industrialisation is very important. The people should know the advantages as well as ill effects of industrialisation. On the one hand industrial development has given rise to 'green revolution' and on the other hand it causes pollution. This affects the health of the people.

Health: Higher agricultural productivity and industrial development create health problems. Urbanisation has caused high incidence of diseases. Unhealthy living conditions and malnutrition may lead to many diseases. So people should feel concerned about their health. This is possible if they are aware of healthy living conditions and outcome of ill health.

3) The different kinds of clientele for environmental education and different ways of imparting this are as follows:

Clientele	Ways of imparting education
a) School and college students	Formal education at school and university levels. Teaching strategies adopted are classroom teaching, practicals, field visits.
b) General public	Non-formal education through various media like radio, TV, newspapers, special exhibition, slides, tapes and other audiovisual aids.
c) Functionaries and opinion leaders in the areas of environmental management.	Specific orientation and training programmes to be acquired by the University departments of Environmental studies.

- 4) i) BNHS has contributed significantly for conservation of our natural heritage and in increasing knowledge of our mammals, birds, reptiles and other flora and fauna.
 - ii) Kalpa Vriksha: This organisation is functioning to compaign for environmental issues and it is functioning as a resource group for NCERT.
 - iii) WWF: The major activities are conservation of the country's natural heritage.
 - iv) Appiko: Appiko is actively involved in protecting and planting trees by afforestation.