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# UNIT 16 CONSERVATION THROUGH AGES

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## 16.0 INTRODUCTION

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The conservation of environment is a subject of serious and wider concerns. We are however inadequately equipped to deal with this concern in the absence of any significant documentation of the subject in the textual tradition of India. We have however attempted to piece together the available evidence for examining the significance of conservation and for giving you a brief history of conservation practices in this unit.

The idea of conservation is probably as old as the human existence but the use of the term in the contemporary writings is relatively recent. Moreover, the environmental problems, in recent decades, have attracted a lot of popular and governmental interest. Environmental matters are becoming a critical part of the political discourse in almost every country. The viability of human survival in the wake of an ever-increasing pollution of the earth is becoming a matter of concern for humans. Recent times have witnessed an increase in the popular awareness with respect to the consequence of global environmental degradation and have noted the necessity for conservation. We hope the problem of conservation will be seriously examined and will pave the way for examining the concept of sustainable development and bio-diversity protection.

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## 16.1 UNDERSTANDING CONSERVATION

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Conservation of environment does not and cannot have a universally accepted definition. Generally conservation is considered as protection of wild nature where as few see it as an attempt to stress the prudent use of already stressed natural resources. In fact as the human concern about nature has grown so have the definitions evolved. Generally most accepted definition presented at the *World Conservation strategy* by the International Union for Conservation of Nature and Natural Resources is that of “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 aspirations of future generations.”

Although we do not equate biodiversity conservation with the complete preservation of all species nor the maintenance of the environmental status quo, we are concerned with the current rates of resource exploitation and habitat modification which may be leading to an excessive biodiversity loss. Thus conservation is not simply preservation of wild nature or biodiversity but it also encompasses the larger issue of the usage of natural resources. At the same time it also implies *preservation of some level of biodiversity that is essential to the functioning of the ecosystems and the survival of the mankind along with other living creatures.*

It is generally believed that nature has its own way of functioning and there is an unsaid balance maintained by nature between humans and its resources. It is only now that greater exploitation of natural resources is disturbing this natural balance. This has forced environmentalists to argue for the conservation of environmental systems and the diversity of species. It has been further supported by those who have become disillusioned with the course of development. The debate has larger political dimension and it is believed that Northern countries (Developed Countries) after developing their industry and in the process destroying the natural balance are now forcing the Southern countries (Developing countries) to not develop in the name of conservation of environment and natural resources in particular. It has been pointed out that the level of energy consumption enjoyed by Northern countries is not tenable in the absence of sufficient natural resources. This view was most vehemently argued at the U.N. Conference on the human environment in Stockholm and Northern environmentalists were shocked in 1972 by the positions taken by the South.

Politics apart, it is a matter of concern that all are threatened by the decay of global life support systems. Historically, people in industrialized countries have not perceived the importance of environmental conservation the same way as the people in developing countries have done. North Americans, due to their cultural history, have to glorify nature to decry its defilement and to propose “back to – nature” type solution. As a consequence of their colonial history, Third World people have tended to be much more concerned with the social origins and human consequences of environmental degradation. It is now being argued that environmental leaders and scientists from North and South should learn from each other through repeated discussions and team work. The 1987 report of the *World Commission on Environment and Development* reflects both views. There is a new synthesis arising among world political leaders as well. Among the populace the differences between North and South are diminishing. Northern workers are becoming more politically active with respect to the danger their work has on environments, while Southern people are gaining a broader understanding of the importance of ecological systems and processes for economic development.

Conservation is essential for the survival of humans as well as life forms on earth. Existence of life forms on earth has been made possible by a very complex combination of interaction among innumerable factors. The most important among these factors being the atmosphere, which represents availability of air (oxygen), water, sun, land forms in particular and numerous other materials. It is presumed that any large scale disturbance in the availability or functioning of any of the components of environment would lead to environmental decay and ultimately cause extinction of life. Therefore, conservation of not only the quantity of the components but also the quality of the components is also very important. As such plants are considered as the primary producers but their relevance with respect to generation of oxygen cannot be undermined. Therefore, any factor which hampers the growth of plant life on earth will lead to the paucity of oxygen and will disturb the proper functioning of environment. At the same time we must be careful to note that till date we are not able to identify numerous other factors that also influence the environment.

Certain aspects of conservation, such as the prevention of pollution, have more narrow but immediate importance. There are numerous examples of the serious effect of pollution in air, water, or soil on human health and survival. Moreover, it is now being realised that impact of pollution on humans can not be treated in isolation and we have to extend our concern to other life forms also.

Another related but equally relevant aspect of conservation has been its economic value. Mostly it has been realised in terms of the cost to the humans. Although the floating plants of the ocean, the microscopic phytoplankton, are of little direct economic value to the humans their elimination from the food chain would sooner or later destroy the world's marine life and eliminate fisheries – the major source of food for large sections of humanity. The same is applicable to an unrestrained cutting of forest for petty gains. The deforestation would ultimately not only influence the food chain but also lead to depletion of oxygen in the atmosphere. Short term economic consideration will ultimately lead to disruption of the functioning of environment and any rectifying measure will be capital intensive, defeating the basic purpose.

Similarly, along with economic considerations of conservation, we must realise the irreparable damage being caused to the aesthetics of environment. Greater the human technological penetration in the functioning of different components of environment it is difficult to explain the real nature of environment to larger population and urban born in particular.

Conservation is also of great scientific value. Because relatively little is known about the past, present and possible future of the earth, we need to preserve some part of our natural environment to conduct the scientific research in the pristine environment. Moreover, there are still numerous undiscovered materials/natural resources waiting for scientific investigations. Any possibility of elimination or pollution of any such natural resource will deprive humans of its possible benefits.

## 16.2 INDIAN VIEW OF CONSERVATION

Cutting across historical, philosophical debates, the one principle which underlies and provides unity in Indian philosophy as also continuity of vision and perception is the assertion that *Man is only one among all living matter*. Man's life depends upon and is conditioned by all that surrounds him and sustains him, namely, inanimate, mineral and animate, aquatic, vegetative, and gaseous life. It is therefore, Man's duty to constantly remind himself of the environment and the ecology.

In the Indian world view, as also of other ancient civilizations and cultures, life on earth emerges from the eternal waters that hold the potency of fires. Perhaps we have not pondered over the significance of the myth. While on surface myth has a dream like structure, its meaning and value lies in its pointing at the natural phenomenon. Indian science and philosophy and thus culture develop on the postulate of the perpetual movement of *creation, degeneration, and regeneration* of the cosmos.

The traditional society is structured on a four fold control system that orders human life, its subsistence and desires. Life is ordered into four successive stages (*ashramas*) from learning and performing to gradual indifference and final withdrawal. Although seemingly opposed in character, these primal desires stand in an organic and interactive relationship to one another. This fourfold ordering of life is called *purusartha*, that is, the making of a cultural person (*purusha*). At a higher level of consciousness, the cultural person is transformed into a cosmic person.

The Indian theory of nature and ecology is enormously affected by the theory of creation which recognizes that *every element, object and living being in the universe is created by the same Supreme Being; and the man has no special dominion over nature*. The early Indian socio-religious systems enshrine respect for nature in the following basic elements:

- 1 faith in a supreme power,
- 1 non-dualistic view of this supreme being, and
- 1 a set of rules defining duties in consonance with cosmic order.

The early scriptures of India provide useful references ascribing practical conservation tips that directly relate with this enshrined respect for nature. *Vedas, Upanishads, Puranas* and other scriptures give detailed descriptions of trees, plants and wildlife along with their importance to the community. Trees have been considered as an essential part of Indian homes. Significance of plants and trees to human life is further exemplified in *Varah Puran* which advocates regular plantation as a means to achieve heaven. In *Matsyapurana* and *Padmapurana* also there is a description of great plantation ceremony – *Vriksha Mahotsave*. In *Matsyapurana* plantation of a tree has been equated with progeny of ten sons.

Indians accept nature as divinity; and as such various trees and plants are used in religious ceremonies and worship. Some trees and plants are considered so sacred that it is assumed that particular Gods and/or Goddesses have made their abode in them. In *Narsimha Puran* tree has been personified as God (*Brahma*) itself. *Atharvaveda* considers *Peepal* tree as abode of various Gods. Names of various trees and their associations with God and Goddesses are:

<sup>1</sup> <i>Ashoka</i>	<i>Buddha, Indra, Vishnu, Aditi etc.</i>
<sup>1</sup> <i>Peepal</i>	<i>Vishnu, Laxmi, Vana Durga etc.</i>
<sup>1</sup> <i>Tulsi</i>	<i>Vishnu, Krishna, Jagannath, Laxmi etc.</i>
<sup>1</sup> <i>Kadamba</i>	<i>Krishna</i>
<sup>1</sup> <i>Ber</i>	<i>Shiv, Durga, Surya, Laxmi</i>
<sup>1</sup> <i>Vata</i>	<i>Brahma, Vishnu, Shiv, Kal, Kubera, Krishna, etc.</i>

The various trees and plants are not only worshipped but cutting green trees has also been prohibited and punishments prescribed for the offender. Indian society had been very much aware of the fact that *indiscriminate destruction of plants and forests would result in diseases and pollution of the atmosphere.*

One of the early historical evidence of this nature comes from the inscriptions engraved on pillars and rocks at the behest of Ashoka, the famous Mauryan Emperor in the third century BC.

The Ashokan inscriptions were put up at centres of population and pilgrimage where crowds of people would gather and read them, and receive the inscription of their messages of morality. One of this pillar edits, No.V found at Rampurwa in Bihar and issued by him in 243 BC provides elaborate injunctions relating to environment. This edict may even be taken as one of the earliest historical record focusing on conservation practices to be followed by people in general. The text of this edict reads as below (English translation):

*Thus saith king Priyadarsi, Beloved of the Gods.*

*Twenty-six years after my coronation, I have declared the following species of animals exempt from slaughter, viz., parrots, mainas, ruddy geese, wild geese, **nandimukhas gelatas**, bats, mango-tree ants, terrapins, boneless fish, **vedaveyakas**, **gangapuputakas**, skate-fish, tortoises and porcupines, leaf-hares, twelve-antler stags, bulls set at liberty, household vermin, rhinoceroses, white pigeons, village pigeons and all the quadrupeds which are neither useful nor edible.*

*Those she-goats, ewes and sows, which are either pregnant or milch, are not to be slaughtered, nor their young ones which are less than six months old. Cocks are not to be caponed. Husks containing living beings should not be burnt. Forests must not be burnt either uselessly or in order to destroy living beings. The living must not be fed with the living.*



*At the three Chaturmasis and at the full-moon of the month of Tishya, for three days in each case, viz., the fourteenth and fifteenth of one fortnight and the first of the next, and invariably on every fast day, fish is exempt from slaughter and should not be sold. And on the same days, not only these but also other species of beings should not be killed in the elephant-forests and in the fisher-men's preserves.*

*On the eighth of each fortnight and on the fourteenth and fifteenth, on the tishya and Purnarvasu days, on the three Chaturmasi days and on every auspicious day, bulls are not to be castrated. And he-goats, rams, boars and such other animals as are usually castrated should not be castrated on those days. Horses and bullocks should not be branded on the Tishya and Punarvasu days, on the Chaturmasis and during the fortnights associated with the Chaturmasis.*

*Up to the time when I completed twenty-six years after my coronation, the release of prisoners has been ordered by me twenty-five times during the period in question.*

(D.C. Sircar, *Inscriptions of Asoka*, New Delhi, 1957, pp 64-5).

The text of this edict is self-explanatory. It gives a list of creatures which were declared protected and it was forbidden to slaughter them. Injury to living creatures in other ways was also prohibited. The conservation of forests was earnestly propagated. Forests as the living abode of a variety of creatures would help protect a variety of species. The injunctions concerning fish were invoked perhaps with a view to protect them during the breeding season. For its date which is as early as the third century BC the edict is unparalleled in propagating conservation ethics. (Cf. Radha Kumud Mookerji, *Asokan Inscriptions: A Commentary*, Allahabad, 1942).

The Indian culture, in ancient and medieval times, provided a system of moral guidelines towards environmental preservation and conservation. Environmental ethics as propounded by ancient scriptures and the seers continued to exist in society and was practiced by not only common man but even by rulers and kings. These principles were properly knitted with the Indian way of life. Even very minor things creating environmental problems were dealt with giving proper solutions.

We have several examples from medieval Rajasthan highlighting the concern for environment. The attitude towards nature is apparent in the teachings of sects like Bishnois. The founder of the Bishnoi sect, Jambhoji (AD 1451-1536) prescribed twenty-nine rules for his followers. Most of these suggested maintenance of harmony with the environment, such as the prohibition on cutting green trees and animal slaughter.

Jambhoji's teachings, which were congruent with the interests of the common man, became immensely popular. The number of his followers increased manifold but primarily in the arid regions of Bikaner and Jodhpur. His sect became so influential that the rulers of these states were

forced to respect his sermons. Maharaja Ajit Singh issued a *parwana* (official order), restraining the cutting of green trees in 1754 vs./AD 1698. Anup Singh, king of Bikaner prohibited cutting of green trees in the villages dominated by Bishnois in 1752 vs./AD 1696. Similarly, in 1878 vs./AD 1821, Man Singh, the king of Jodhpur, issued a similar order with respect to the *khejari* tree. King Takht Singh in 1900 vs./AD 1843 extended the scope of this legislation by prohibiting slaughter of any animal in the villages dominated by *vaishnoi*.

The founder of the Bishnoi sect was not alone in attempting to influence conduct towards living beings via religious and ethical transformation. Another popular saint, Jasnathji (AD 1482-1506) a contemporary of Jambhoji also endorsed such a viewpoint. His followers were known as Jasnathi. Like his contemporary, Jasnathji was also aware of the importance of the preservation of environment. In his teachings, the *jal* tree, which formed the natural vegetation of the region, was accorded special protection. These teachings became popular in the region, which had traditionally sustained goat and sheep rearing. Conservation of green vegetation and prohibition on the slaughter of animals seemed to be an attempt towards protecting their livelihoods. However, restrictions through religious and official sanctions question the older assumptions of prudent use of natural resources and environmental conservation as supposedly practiced by traditional societies.

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## 16.3 CONSERVATION PRACTICES IN HISTORY

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Conservation has a chequered history. It has, in the long and coiled process, concerned itself with natural ecosystems and the animal world. Modern attitudes and practices about conservation have evolved largely in the context of the socio-economic mores of western society. These attitudes have been influenced by the political and economic upheavals that western society has undergone. Western notions of conservation have been mainly guided by the philosophical foundations of Judeo-Christian position about man and nature. Two ideas constitute the core of this position:

- 1 the right of exploitation of nature by man, unfettered by any serious ethical consideration; and
- 1 the responsibility of stewardship.

The fundamental Judeo-Christian belief holds that nature was created to serve the human race. Hence, the exploitation of nature is a natural legitimate pursuit. This view does not endow the environment and its inhabitants with protective spirits that prohibit exploitation.

Starting with the voyages of discovery in the fifteenth century, the influence of European culture was spread over the world. By the seventeenth century Europeans were equipped with an increasingly powerful technology and a growing ability to modify large areas of the

earth. During this period the attitudes of explorers and colonists were oriented more toward immediate personal aggrandizement of the lands they visited and settled than toward any concern for the long-term health and productivity of the newly discovered countries. Soil erosion as well as the destruction of natural vegetation and wildlife accompanied the spread of European colonization. During the same period, however, some conservation ideas and practices were also being promoted. Forest conservation, for example, developed sound beginnings because of the disappearance of natural forests as a result of the increasing demand for wood fuel for industrial uses. Also a general interest in and concern for wildlife was developing.

The nineteenth century, however, witnessed unusually severe environmental exploitation and destruction. In Africa many forms of wildlife were hunted to extinction, and most of the larger mammals were reduced to numbers that endangered their survival. Even the larger predatory animals were nearly exterminated, and some of them subsequently became extinct. Many types of birds that once had occurred in great abundance were wiped out. Logging and fires combined to menace the once luxurious forests. Livestock populations were allowed to increase to levels far above what the natural forage could support. The process of over foraging damaged the range lands to such a degree that they have not yet recovered. The grasslands were overgrazed and native vegetation was eliminated.

By the middle decades of nineteenth century biology was undergoing a revolutionary change in its view of the natural world i.e. the replacement of a static, creationist view of life by an evolving mechanistic view. This change is best exemplified by the emergence of the theory of *evolution by natural selection*, presented jointly by Charles Darwin and Alfred Wallace. The concept of natural selection replaced the creationist view of the original living species with a mechanistic process of interaction within nature. *The evolutionary view also opened the eyes of many to the fact that change in the environment, including changes caused by humans, could bring about the extinction of many kinds of organisms, as the fossil record demonstrated.*

It could have been predicted that the modern conservation movement would have its beginnings not in the settled lands of the Old World but in those areas of the New World where, within the memory of a single generation, there had been extreme changes in the landscape and similar changes in the abundance of wildlife. Conservation as a national movement was initiated by U.S. President Theodore Roosevelt and his immediate advisers. Roosevelt's chief forester, Gifford Pinchot, is credited with having first used the term "conservation" in its present context.

World War II, suddenly diverted attention from conservation issues. It also initiated an era of unparalleled economic expansion and explosive growth of technology and human population. The result was exponential growth in the pollution of air, land and water by chemicals and chemical wastes.



The emerging situation was frightening. The attention of world community to the issues related with conservation of environment was bound to be attracted by it. In the post-war scenario serious attention was paid to the issue. It was seriously realised that the global commons were being increasingly threatened by a wide variety of real and potential environmental problems.

Since 1950s environmental issues have been catapulted on to the centre stage of global politics. International organisations are now seriously involved and an elusive consensus on a global action plan is being attempted. These developments shall be discussed in detail in Block 7.

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## 16.4 SUMMARY

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Various developmental activities are rapidly destroying nature and its finely maintained and fragile balance and interdependence created over million of years. But by destroying nature society is creating a basis for self destruction. The destruction of nature has gathered speed in the last two decades, and we are fast heading towards a complete devastation and destruction of ecology. We are not on the brink of disaster; we have already entered the realm of disaster. *Man by his thoughtless acts is fast turning the globe into a large garbage heap.*

Much of his recent industrialization and agrarian development was ill conceived, and continues to be so. Man and society have ruthlessly robbed nature and have made a desert of the earth. But the worst crime man and society continue to commit is to deprive the planet of its deep-fresh-cover of dense forests, those forests that sustain man and all the living beings and provide them with the life giving oxygen. Virtually every state and country is involved in this criminal act – an act against the humanity. Some people do it for profit, others in the name of providing basic necessities of live, still others purely for pleasure.

Conservation is essential to human survival. Because life depends upon the proper functioning of the biosphere – the relatively narrow zone of air, water, soil, and rock in which all life on earth exists – the ultimate purpose of conservation is to maintain the biosphere in a healthy operating condition. Although it is known that green plants supply oxygen to the atmosphere, that plants and animals recycle nutrients, and that plants and animals help maintain the fertility of soils, many of the elements that contribute to the proper functioning of the biosphere have not yet been identified. Because mankind lives with such environmental uncertainties, an attitude of care and protection toward the earth's living resources is necessary.

The ecological situation has become quite critical today, so critical that if we do not take urgent steps, things will go out of control and beyond redeem. Man's various activities in all fields of daily life, particularly the industrial and agricultural ones, are rapidly destroying nature. By destroying ecology, man is creating conditions for self destruction. What must we do? Obviously the question of protection and regeneration of

ecology is the question number one before the world society. The entire strategy of the future development of civilization has to change drastically in all the fields; otherwise our survival is out of question.

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## 16.5 EXERCISES

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- 1) Write a note on the significance of environmental conservation.
- 2) Discuss conservation practices since the beginning of the modern period.
- 3) Write an essay on the Indian view of conservation.
- 4) Write a short note on the meaning of conservation.

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## 16.6 SUGGESTED READING

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*The Princeton Conference Report, Man's Role in Changing the Face of the Earth*, 1958.

O.P. Dwivedi & B.N. Tiwari, *Environmental Crisis and Hindu Religion*, B.N. Tiwari New Delhi, 1987.

James E. Hickey & Linda A. Longmire, ed., *The Environment, Global Problems, Local Solutions*, London, 1994.