



Review Paper

Ecological Sustainability in India through the Ages

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Abstract

The world is witnessing environmental upheaval the world over. There seems to be the total disconnect with the nature which gets manifested in the form of climate change, global warming and natural disasters. Although man himself is responsible for the same where he is trying to win over nature recklessly but, his own existence is under potent danger. Indian civilization, one of the oldest living civilizations, has staunchly believed in being in harmony with the nature. Our ancient literature is replete with instances where human sensitivity towards nature is glorified at its best. The Vedic, Jain, Buddhist, and Kautilya's Arthashastra established the principles of sustainability centuries ago. This research paper primarily focuses on those ecologically sustainable principles which the man seems to have forgotten today. If they are followed, the ecology will move sustainably and not only present, but future generations can also enjoy nature in its original vigor.

Keywords: Sustainability, ecology, Indian civilization.

Introduction

Sustainability is a 'buzz' word in present scenario. In today's global environment every country is focusing on sustainable development. Sustainable Development implies meeting the need of present without compromising the ability of future generations to meet their own needs. (Brundtland Commission, United Nation, 1987)¹. In other words sustainability is the long-term maintenance of responsibility, which has environmental, economic and social dimensions.

For the purpose of increasing awareness regarding environmental sustainability world over and determining the severe environmental issues an Earth Summit was organized in June 1992 at Rio de Janerio. It is popularly called as Rio Earth Summit. This summit comes up with a future conservation plan for sustaining environment and for this a blue print was prepared². Interestingly, ancient Indian civilization also knows the importance of nature and in this regard several principles were developed and practiced in ancient India which is very much similar to Rio principles. The modern holistic methods of ecological sustainability are replicated in many ancient Indian literature. The Vedic, Jain, Buddhist, and Kautilya's Arthashastra established the principles of sustainability centuries ago³. For example, the first principle of Rio Earth Summit implies that human beings should be the center of sustainable development, but it should always be in concurrence with nature². Our saints and rishis also give due respect to nature which can be seen in their prayer that "maintain us in well being in summer, winter, dew time, spring, autumn, and rainy season. Grant us happiness in cattle and children. May we enjoy your protection!" The Prithvisukta especially advocate

man's close association with ecology and nature. The fourth principle of Rio earth summit asserts that environmental protection should be an essential part of development². Several Vedic hymns explicitly guide man not to harm water, vegetation and ecology⁴. The seventh Rio principle advice that the earth ecology should be conserved, preserved and restore².

In ancient Indian literature earth is honored as mother. According to Atharvaveda, earth is to be respected and protected like a mother "bhoomi mata putroham prithivyah". In many parts of India, communities have inherited the rich tradition of love and reverence for nature through the ages. Religious preaching's, traditions and customs played a prominent role in this reference. All Indian religions are the great supporter and promoter of environmentalism⁴. They promote such guidelines and principles among common people that ensured an intimate contact and sense of belonging with nature. It comes up in the form of directive principles and orders to the followers of religion, to perform certain rites and rituals that became a part of their life and ensure environmental sustainability⁵.

Tagore in his essay Tapovan, 'Forest of Purity' elucidate that "Indian civilization has been distinctive in locating its source of regeneration, material and intellectual, in the forest, not the city. India's best ideas have come where man was in communion with trees and rivers and lakes, away from the crowds. The peace of the forest has helped the intellectual evolution of man. The culture of the forest has fuelled the culture of Indian society. The culture that has arisen from the forest has been influenced by the diverse processes of renewal of life, which are always at play in the forest, varying from species to species,

from season to season, in sight and sound and smell. The unifying principle of life in diversity, of democratic pluralism, thus became the principle of Indian civilization.”

Conservation of Nature

The culture of conservation of nature dates back to the ancient Vedic Period. The four Vedas i.e. Rigveda, Samaveda, Yajurveda and Atharvaveda are full of hymns which explicitly advocate the supremacy of different natural power. The Rigvedic hymns refer to many gods and goddesses that is just the personification of natural entities like sun god, moon god, thunder, water god, rivers as mother, rain, lightening, trees etc. They have been glorified and worshipped as givers of health, wealth and prosperity⁴. The rain god Indra has the largest number of hymns associated to him. Sun worship is of vital importance in Vedic worship. Today it has been confirmed that solar energy is the ultimate source of energy that regulates the flow of energy through water chain, food chain and drives various other nutrient cycles and in this way establish a control over the earth ecosystem, but it was well understood and realized by the ancient Indians.

In an article on Earth Charter and Hinduism, Kamla Chowdhry emphasized that, “Hindus regard everything about them as pervaded by divine presence. The rivers, mountains, lakes, animals, flora and fauna, are all manifestations of God, and therefore there is a deep respect and gratitude felt towards nature” . This respect to nature and ecology can be noticed in a vast network of sacred rivers, sacred mountains, revered trees and plants, and even holy cities across India. The whole emphasis of the ancient Indian religious practices is on that human beings cannot be separated from their natural surroundings. Nature has the same blessed connection with man as mother has with her child. This is evident from the practice done by a classical Bharat Natyam dancer when she steps on to the stage. Firstly, she touches the floor and with a prayer she asks forgiveness from the Earth as she is going to stamp hard with her feet on the earth while dancing⁶.

Conservation of Flora

Conservation and preservation of flora also called as plant kingdom has been an integral part of Indian culture. In general there are many plants, trees and herbs which are sacred among the common people, because they are directly or indirectly associated with different Gods and Goddesses of Indian religions. Trees have been given huge importance in the ancient Indian tradition. The four Vedas are full of hymns regarding reference to different herbs, trees, flowers and their significance for nature, ecology and man himself⁷. Trees and plants were considered as living beings. Modern Science also confer that plants have life. To cut and harm them unnecessarily or at large scale was considered as sin. Peepal tree continuously releases oxygen in the atmosphere which is very important for human life, and therefore, such knowledge must have been put into a

spiritual form by our ancestors. The tradition of sacred groves was also practiced in ancient period and it is still practiced in folk and tribal communities. A sacred grove is consists of old trees generally at the outskirts of a village. They were not cut and left untouched when the villagers or original settlers cleared the forest for growth and development or to establish the village. Such groves were called to be revered and regarded as the abodes of gods and goddesses or spirits and therefore conserved with utmost care. There are many sacred plants such as Tulsi, Rudraksha, Bar, Peepal etc. Planting and worship Tulsi and adding it to water and food is considered sacred. Tulsi is a very good medicinal plant. Scientific evidences suggest that it is hepato-protective, anti-inflammatory, antimicrobial, immunomodulatory, cardio-protective, adaptogenic, antidiabetic, anti-carcinogenic, neuro-protective, radioprotective, mosquito repellent etc.

Fauna and Wildlife Protection

With land and plants, fauna was also protected and conserved. Fauna refers to animal kingdom. Wild and domesticated animals were given due respect in the ancient Indian tradition. Many Hindu gods and goddesses have some particular animal or bird as their vehicles (vahana). These consist of lion, tiger, elephant, bull, horse, peacock, owl, ox, mouse, etc. The association of these animals with peoples' religious beliefs played a prominent role in their protection and conservation for so long in India, until the colonial rule starts intensive hunting. The feeling of sacredness attached to wildlife protected it and help in creating an ecological balance⁸. For example, the snake's relationship with Lord Shiva. Snake worship was a holy effort done by our saints to preserve this animal, who is associated with fear and persecution among people because of its perceived venomous nature. Even modern science has confirmed that snakes have an important role to play in food cycle. It also plays a significant role in maintaining the ecological balance. Manusmriti has references to direct and indirect instructions about the conservation of plants and animals. It gives specific punishments for harming trees or animals⁷.

According to Indian custom and tradition, every village will achieve wholeness only when certain types of trees are present. This phenomenon is somewhat equivalent to present days ‘protected area’. The twenty fifth Rio principle talk about how “peace, development and environmental protection are interdependent and indivisible.” Ancient Indians has also very well constructed that ecological balance relies on actions of individual and society either good or bad².

Sustainable practices in Buddhism and Jainism

Buddhism and Jainism are the two most important religion of India. Both of these heterodox sects of ancient India also advocate ecological conservation. Where Buddhism advocates patience, love, concern, forgiveness, the Jainism believes in complete non-violence (Ahimsa). Jainism treats every creature of earth either smaller insects, microbes or big ones as equal and

forbids their killing by any means. Here Buddhism emphasized on middle path and states that killing of animals and cutting trees should not be done until it is not necessary. This perception provides a better understanding among followers of this religion towards conservation of nature, ecology and biodiversity⁹.

Jain environmentalism is largely based on spirituality, non violence and equality. Jainism is a religion of kindness. It aims at the welfare of all living beings. Non-violence (Ahimsa) is one of the principal doctrines of Jainism that deals with the restriction of not harming living beings. Each life form that is plant or animal has an inherent worth and each must be respected. Jain followers can actively use their knowledge and understanding of practicing non-violence principles in meeting the present ecological needs. Jainism presents a giant view that advocates the interrelatedness of all forms of life (Jiva). Its ethics and principle, which is largely based on obligations, can easily be extended to earth ethics. It explicitly emphasized that every Jiva must be respected. It confers that every human beings which is highly advance creature of earth have a great moral and ethical responsibility with the rest of the universe in their shared dealings and associations. This ethical responsibility makes Jainism a cradle for the creed of ecological conservation. An important principle of Jainism expressed in Sutrakrta-anga beholds that "A man should wander about treating all creatures as he himself would be treated. Inflicting an injury to other beings is inflicting injury to oneself." This has emerged from the doctrine of the equality of all souls. Jainism believes in reincarnation, that person might come back in the form of an animal or insect. Thus no living creature should ever be harmed¹⁰.

Jain ethics insists that any form of violence has harmful effects on those who commit it, with subsequent ill effects in terms of karma. "Ahimsa-paramo-dharmah" means non-injury to any living creature, is one of the basic principal of Jainism. Harming or killing any life form (Jiva), is the greatest of all sins. Jainism asserts that there must be no destruction. There should be kindness and sympathy for all living creatures at every step of daily life. For the Jains, ahimsa means to represent one's compliance to detach himself not merely from acts of injury or killing, but also from the entire mechanism of violence, hostility, anger, possession, and utilization that is common in rest of the world. Jainism preached it so philosophically by accepting the principle of the interdependent existence of nature and animals. Jain Teerthankar Mahavira says, "kill no creature" and even avoid accidental injury to all living beings. Jains wear nose masks to stop inhalation of microbes. The vivid description is found in Jain scriptures as how plants and other living being could be saved¹⁰. These are many important principles laid down by Jainism to avoid any type of harm to water, air, fire, and other forms of life. It also asserts on minimizing such evils like sound pollution, and thus helps to maintain the balance between community and ecology.

Buddhism, an another important religion of India is some time termed as an ecological religion. It has been described as containing values similar to those necessary for a sustainable society (Birch 1993; Brown 1981; Galtung 1993; Phra Dhammapitaka 1995; Schumacher 1973). Buddhists believe that all things, including humans, exists by their interrelationship with all other parts of nature. Jose Kalputra said that, "Buddha taught that respect for life and natural world is essential. By living simply one can be in harmony with other creature and learn to appreciate the interconnectedness of all lives. The simplicity of life involves developing openness to our environment and relating to the world with awareness and responsive perception¹¹. It also enable us to enjoy without possessing, and mutually benefit each other without manipulation." Buddhism has a number of strengths in this regard: i. It offers a credible and ethical critique of the dominant paradigm and its fundamental beliefs. ii. It provides a comprehensive worldview consistent with emerging scientific understanding. iii. It supports a higher purpose for human existence. iv. It contains a psychological framework, including essential practices and techniques, for human transformation.

Buddhist percept to seek a right livelihood, an essential dimension is a concern for the life of the entire creature. It also put emphasis on 'ahimsa' means avoiding any injury to any creature¹².

Ecological sustainability in Mauryan Period

Kautilya Arthashastra helps in determining the Ecological sustainability in Mauryan Period. Kautilya popularly known as Chankya was teacher of emperor Chandragupta Maurya. This book is most secular, realistic and practical in its approach as it was designed to identify the rules and regulation which could be enforced under the law made by emperor. It includes the preservation of environment and ecology. According to Kautilya it is the duty of king to conserve environment, ecology and other natural resources. It was done through assigning duties to different state official. He prescribed that suitable trees and plants should be grown to preserve dry lands. He emphasized that pastureland should be protected appropriately as it arrange the food for cattle. He was of opinion that king should conserve and preserve water reservoirs as it is the most valuable gift of nature and man can't live without water. Residential buildings, roads, commercials, cremation grounds etc. ought to be constructed in such a way that it cannot harm the ecology and doesn't have negative effect on biodiversity. As per mauryan law, every house should have proper provision for controlling fire. In addition to this there must be proper provision in every house for proper sewage and proper removal of garbage and wastes. Any sort of violation of these rules was legally liable to penalty or punishment. Kautilya recommend different fine and penalty for polluting the surroundings unnecessarily by throwing dirt. Doing urine and faeces, throwing dead bodies at public places was a punishable offence. That should be cremated at cremation ground only¹³.

Sometimes, damage to ecosystem happens due to natural disaster also. He gave a disaster management system for the same as all of the hazard can't be prevented by human endeavor. He identifies eight natural calamities i.e. disease, famine, fire, flood, rats, serpents, wild animals and evil spirits. City superintendent is liable for controlling hazard from fire. During rainy season, villages situated near the water bodies were migrated and settled to other areas which are away from flood. They must have a proper arrangement of wooden planks, bamboos and boats to face the flood. Kautilya also laid emphasis on mass participation during rescue work. Famine management was also noteworthy. During famine king should make a store of food and seeds and distribute them to mass by constructing forts or other works with the grant of food. It is the duty of king that when disaster actually occurs, he should take quick and specific measure in order to minimize the harmful effects on community¹³. Help of friendly foreign government can also be taken if necessary to manage the disaster. He should seek shelter with allies.

Conclusion

Thus we can say that ancient Indians were very much aware about the ecology and sustainability. It helps in solving specific environmental problems and the modern principles of sustainability were adopted at that time. But unfortunately we have forgotten those golden principles laid up by them.

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