Environment played an important role in the process of historical developments. Good or bad condition of any period or of any country primarily linked with the favourable or unfavourable environmental condition of that period or country. The history of nations and evolution of culture and civilization have greatly been influenced by environmental features because human society, like any other living organism, tries to adopt itself to natural environments. Nature not only provided man with shelter and food but also played a significant role in the making of mankind. Ever since man emerged on the earth, there had been persistent dependency on nature. In the early stage of his emergence, man was quite helpless in nature (Majumdar 2004:37). Even in the modern times, in spite of outstanding progress and attempt of science to control nature and environment, human beings are unable to subdue it; rather they are greatly controlled and influenced by the natural phenomena. Natural resources available on this earth, however, have their limits, over exploitation of which leads to environment crisis in some form or other. The writing of the Indian history in proper perspective is incomplete without adequate knowledge of environment, geography, ecology and physical features through which it passed. The study of early Indian environmental history, in fact, is highly rewarding to the present generations.

Environment is a broad term which encompasses all natural things that surrounds us and is essential to sustain life such as air (atmosphere), water (hydrosphere), land (lithosphere), flora, fauna etc, and environmental history is the study of human interaction with the natural world. Environmental history shares a very messy boarder with economic and social histories, history of science and technology, disease history, and even with various other disciplines (Chakrabarti 2007: 25). The principal goal of environmental history is to deepen our understanding of how human beings have been affected by the natural environment and also how they have affected
that environment and with what results and consequences. Environmental historians base their understanding of human and nature relations primarily on historical methodology, some times taking ideas and inputs not only from scientists but from the scholars working in other fields also. The study of ecology and environmental history in India is comparatively of recent origin. The intellectual root of the study of environmental history traced back to the Annals School of France which stresses on the significance of natural geographical features and their role in shaping a society. In this brief paper, a sincere endeavour has been made to throw light on various aspects of environment in ancient India in historical perspective when there was no industrialization, limited population, non polluting vehicles and less pollution. Ancient Indian literatures are replete with references to different aspects of environment, its management, preservation and protection. The Vedic, Puranic, Jain and Buddhist traditions established the principles of ecological harmony centuries ago. The foreign travellers like Megasthenes, Pliny, the unknown author Periplus of the Erythraean Sea, Ptolemy, Fa-Hien, Hiuen Tsang, Itsing etc., who came to India at different times refers to various aspects of environment in their eye witness itineraries.

The fundamental feature of the Indian culture is unity in enormous diversity. India, since the remote period is not only divided in culture, religion, social customs, language, dress and food habits but also in climate, environment, flora and fauna. It is inhabited by a variety of races with different degrees of culture ranging from rude savages to polished philosophers. Hence, it has been described as an ethnological museum. Physically it is divided into five well demarcated divisions i.e. the Himalayan region, the Indo-Gangetic alluvial northern plain, the Deccan plateau, south-eastern and south-western coastal plains. In the words of K.M.Panikkar (1997:2), “It is the protective wall of the Himalayas that has given to India the continuity of its civilization and social structure from the earliest times to our own days.” The Vindhya mountain ranges separate the northern plains from the peninsular India. However, in spite of ecological diversity, various geographical zones of the subcontinent have never been isolated units (Singh 2008:4). Nature has blessed the Indian landmass with a large number of perennial rivers fed by both rain water and snow. From very ancient times, human interaction took place through routes cutting across mountains, rivers and regions, dictated by geographical features and human needs. India was one of the cradle lands of civilizations in the ancient world. Indian civilization like other great ancient world civilizations of Egypt, Mesopotamia and China developed along the course
of a famous river named Indus (Sindhu, about 2,880 kilometers in total length), after which the name of the sub-continent is known as India. (India in ancient times was known to the foreigners by the name of its river Sindhu, which the Persians pronounced as Hindu and the Greeks as Indos.) It is true that since the dawn of civilization, people realized the tremendous value of water in human life and hence, developed their settlements on river banks. Rivers were the perennial source of water which was essential for drinking, cooking, cleanliness, cultivation, irrigation, and mode of transport and medium of trade and commerce. The rivers like the Sindhu (Indus), Ganga, Yamuna, Brahmaputra, Mahanadi, Narmada, Tapti, Godavari, Krishna, Kaveri etc., played a conspicuous role for the development and prosperity of Indian civilization and culture. The Himalayan Rivers which originated from the Himalaya mostly depend on snow for their water supply and are perennial in nature while the rivers in the Peninsula, which are entirely dependent on monsoon, become dry during the summer months. The extensive coast line of India, however, since very early times fostered overseas trade and maritime activities and gave impetus to cultural expansion in far off countries. It was from different ports of ancient India that her enterprising sailors and navigators maintained commercial cum cultural relations with the countries like Egypt, Babylonia, Greece, the Roman Empire and different countries of the Southeast Asia.

The history of environment in India is very old. The ancient Indians had a great respect for environment and worshipped different objects/manifestations of nature with utmost devotion and sincerity. It appears that the early Indians lived in close symbiosis with nature and in obedience to Rta, the natural law (Vatsyayna 1995:227). They worshipped tulsi (a holy basil plant), neem, pipal or ashvattha, bel, vat (banyan), sal, banana trees not only as having religious importance but also of medicinal value. The trees also symbolize the concept of fertility. Tree worship in India probably was the earliest prevalent form of religion which may be predated to the Vedic period. It is through veneration and glorification of trees that man attempted to approach and propitiate the divinity with the perception that gods existed in plants and trees. It appears that, perhaps the early Indian thinkers attributed religiosity to plant for the maintenance of ecological balance. They also worshipped mountains, land/soil, water, rivers, animals and birds. The river Ganga is considered the most pious river of India since time immemorial while mountain Kailash (a peak in the central Himalayas) is considered the abode of Lord Shiva, one of the most significant gods of the Hindu religion. In the Mahabharata, there is mention about
the worship of *Giri Gobardhana* (mountain Gobardhana). Animals like cows, bulls, elephants which were worshipped in ancient times, are also being worshipped even today. Each of the Hindu gods and goddesses from very remote period are traditionally associated with either of an animal or a bird as his or her *vahana* (vehicle) which gave rise to the concept of *vahana* and their sacredness. Kamadhenu, the divine cow which fulfils all desires represents ancient Indian values towards life. Initially, the gods like Indra, Agni, Varuna, Vayu, Maruta, Surya, and goddesses like Usha, Aditi, Saraswati etc., are associated with different aspects of nature. In the Hindu philosophy, it is believed that the human body is composed of five elements (*panchabhutas*) viz. air (*marut*), water (*apah*), ether/space (*vyoma*), earth (*kshit*) and fire/light/heat/energy (*tej*). Of the five *mahayajnas* or sacrifices to be performed by a Hindu householder, the *bhutayajna* was the most significant innovation that involved daily offering of food to animals, birds, and other creatures (Saletore 1983:104-105) presumably to maintain an ecological balance. The cultural and religious heritage of India shows a deep concern for protection and preservation of the environment (Jaswal and Jaswal 2007:4). However, to have a clear picture of the early Indian environment in historical perspective it is imperative on our part to discuss that in different phases.

In the absence of any written record it is difficult to trace out the history of environment in India since the earliest times. However, as elsewhere, in the beginning of their existence the ancient inhabitants of India were hunters and food gatherers for their livelihood (Sahu 1988). But with the passage of time, they settled down near the rivers and became food producers, agriculturists and consequently traders. It does not, however, mean that all were migrated or confined to river basins only; many of them with original primitive nature and habits lived in the natural surroundings i.e. in the forests and mountains where water facilities were available. Here mountains and forests supplied them food for their survival which led to the development of a very pious and intimate relationship between nature and men out of which both benefited. The relation between nature and human beings of the primitive period are depicted at various places on rocks in the form of ‘rock arts’ and pictographs. Gradually men became civilized and interact at every point of living with natural environment. Though we have no detail idea about the relation between men and environment, we can positively say that they were interdependent; the human beings were happier and healthier where the condition of environment was much better. The climate of a country affects its productivity and thereby indirectly influenced the character
of its inhabitants. India, predominantly being an agricultural country, since very early times depends greatly on seasonal rains. Good monsoon had always helped the production of sufficient food for the people while failures of monsoon had led to famine and death by starvation. The seasonal winds or monsoons, in fact, have distinguished India from other countries. They have created those hydrographical conditions which have made India pre-eminently the land of agriculture and one of the best-watered regions of the world (Mookerji 1954:120).

Evidence regarding the environmental history of India can be traced back to the protohistoric Harappan culture or the Indus Valley Civilization (c. 3rd millennium BCE), originated in the north-western part of the Indian sub-continent which is considered the first civilization of India. From the excavated materials it is evident that it was an urban civilization and flourished mostly around cities and towns. The people of the Indus valley civilization had given emphasis on sanitation and environment. It is very interesting to mention here that during the ancient period when other civilizations were constructing buildings and monuments for their kings, gods and goddesses, the Indus people were constructing magnificent houses and buildings for their own living purposes. The house construction materials, properly planned houses, fortified citadels and public buildings, covered drainage system, wide streets, great granaries, public bath and most sophisticated urban water supply are some of the unique features of the Harappan culture which clearly suggest that the Harappans were not only well acquainted with hygiene and sanitation but also gave emphasis for its maintenance and management. They had world’s first tidal dockyard at Lothal in Gujarat. The Indus valley civilization flourished because of a conducive environment, the river Indus and the alluvial fertile soil brought up by the waters of Indus became the principal driving force for the development of this civilization. The Indus valley people also worshipped trees like pipal and different animals like humped bull, elephants etc. Since the Harappan times till date the tradition of tree worship, particularly pipal becomes a popular form of worship in the Indian cultural and social life. The Harappans were familiar with several methods to control and preserve water for irrigation (Jha 2003: 34). So long as environment was favourable, civilization and culture flourished and continued in the Indus valley and the movement there was deviation in the environmental system either due to environmental changes, ecological imbalance, catastrophic floods, climatic changes, drought, earthquake or change in the course of the river Indus and Ravi, the glorious Harappan culture was compelled to face distress.
The Vedic people (c.1500 BCE to c. 600 BCE) who were primarily nature worshippers had great concern about environment and its management. They worshipped different manifestations of nature as gods and goddesses. The Vedic literatures like the Vedas, Brahmanas, Aranyakas (forest books), Upanishads, Samhitas, Upavedas are replete with references to different aspects of environment. Ecological wisdom, is discernible in the Vedic texts (Vannucci 1994:113) and Vedas in fact, reflect a remarkable awareness of ‘Primal ecology’ (Vatsyayan 1995:115) The Vedic people were nature loving and in contradiction to the Harappans preferred to live in the rural villages instead of towns and cities. It is believed that their main occupation was animal husbandry and agriculture. During the later Vedic period (c.1000 BCE to c.600 BCE), the importance of agriculture increased as the principal means of livelihood. Though different opinions are there about their original homeland, it is generally believed that they came to India from Central Asia in search of pasture grounds and shelter. The early Aryans had the knowledge of seasons which promoted agriculture, and Rig Veda mentions five seasons. It said that nobody will destroy vegetation and no one shall kill animals. The River-Hymn of the Rig Veda mentions as many as ten sacred rivers. The rivers were so vital and sacred to the Aryans that Punjab, during the Rig Vedic period was known as the land of the Sapta- Sindhavah or Seven Rivers i.e. Sindhu, Jhelum, Chenab, Ravi, Beas, Sutlej and Saraswati. The Atharva Veda stressed upon the purity and quality of water. It is mentioned that pure water cures many ailments and it acts as preventer of diseases which are not yet contracted. It also speaks about the protection of wild life and domestic cattle. In the Yajur Veda, there is the warning that one should not kill animals helpful to all and by serving them one should attain happiness (Weber 1852: 13.47). The Vedas refers to the Arabian Sea (Ratnakara) and the Indian Ocean which indicate that they were acquainted with the oceanic knowledge and were carrying out overseas trade and maritime commerce. The Vindhya Mountains were also indirectly referred to in the Vedas (Jha 2003:52). Regarding the condition of the Aryans before their coming into India, while they ‘lived somewhere in Central Asia or in southern Russia’ R.P.Manasi (2005: 126-127) says “Man then lived with nature. Upon the physical forces around him he depended for food and shelter. To him these hidden powers appeared to be pulsating with life; and he appealed and adored them with prayers and sacrifices.” An analysis shows that the Aryans worshipped those to whom they loved or liked or to whom they feared. Out of total 33 Rig Vedic (Martin 1999: 31-73) gods and goddesses, Indra, who is considered the god of rain,
thunderbolt, lightening and war, occupied the prime position. Agni (fire god), Varuna (god of water), Maruta (storm god), Vayu (god of air), Surya (sun god) etc., were other gods of the Rig Vedic period who are nothing but different manifestations of nature. Usha (goddess of dawn) and Saraswati (goddess of rivers), two principal goddesses of the Rig Vedic period were also the manifestations of nature. It is to mention that Saraswati subsequently turned to be the goddess of learning and education, probably during the Gupta period. Besides, they also worshiped different trees, animals and birds. The Vedic hymn, the Prithivi Sukta in the Atharva Veda dedicated to the earth goddess is unquestionably the oldest evocative environmental invocation. The mother earth was celebrated for all her natural bounties and particularly for her gift of herbs and vegetation; her blessings were sought for prosperity in all endeavours and fulfillment of all righteous aspirations. The Vedic seer solemnly declares ‘Mata Bhumih Putroham Prithivyah’ (meaning Earth is my mother. I am her son). The seers had their ashramas (hermitages) only in the forest areas where the environment is cool and free from pollution and where they could compose hymns and sacred literatures. They repeatedly offered prayers for making plants and herbs sweet and invigorating (Wilson 1850-7: 4.57.3). The Rig Veda calls aranyani (forest) as a deity who gives food without cultivation (Ibid: 10.146.1-6) and the Atharva Veda (Pandit 1895-98: 4.3.1) significantly calls the forest as divine. All the Vedic educational institutions (gurukulas) were located in the forest areas amidst the serene environment which generate pious ideas and good thinking. Since the pupils and gurus lived in a natural environment naturally they were concerned about its preservation and protection. They worshipped tree as vriksha devata (tree god) and forest as van devata (forest god) and had the concept of kalpavriksha (the wish fulfilling tree). The life expectancy during the Vedic period was normally assumed to be as 100 years and accordingly they divided one’s life into 4 stages or divisions, each comprising 25 years– brahmacharya (celibacy), grihastya (house holder), vanaprastha (gradual detachment) and sanyasa (ascetic life or renunciation of the world). Such a long span of life could be possible only because of the pure and pollution free environment.

The epics like the Ramayana (c.1000/900 BCE) and the Mahabharata (c.900/800 BCE) at various places refers to environment. Valmiki, the author of the Ramayana and Veda Vyasa, the author of the Mahabharata had their ashramas in the forests which allow concentration and inspired them to write such great epics. The Ramayana and the Mahabharata are replete with references to forests, rivers and mountains. In the Mahabharata (Bhishmaparva, Ch.9; Mookerji
1954:37-38) the whole of India was represented as the land of seven mountains which were chosen as seats of contemplation and peace. Sita, the main character of the Ramayana who is considered as the ‘ideal’ of the Indian women is known to have taken birth out of soil (dharti mata). It is interesting to mention that, in the Ramayana, the main subject matter is the fight between Rama and the Asuras, headed by Ravana of Sri Lanka. It was, however, not actually a fight between Rama and the Asuras but a struggle between the Aryans and the non-Aryans. Ravana, the demon king who was a non-Aryan had a beautiful garden known as the Ashoka Vatika. Bali and Sugriva who belonged to Kishkindhya region may not be actual monkeys but belong to the non Aryan group and were the protectors of the jungle wealth. Sugriva had well idea about the forest and hill regions of south India, and helped Rama who is considered the supreme human being (Purushottama) in finding out and recovering Sita from Sri Lanka.

The Puranas had also great concern for environment, flora and fauna. They conceptualized the trees to feel happiness and sorrow (Vidyasagara 1876: 231 ff.) and attributed auspiciousness to plantation of trees (Skanda Purana: 1.2.27, 21-22; Dutt 1903: 282. 1-4). A tree is said to render to a sonless person the virtue of having a son (Bhavisya Purana, Madhyaama Khanda, 1.10.37; Shastri 2003: 170. 35-37). In the Padma Purana, it is mentioned that trees like, pipal, bel, ber, neem, etc., are the abode of god and are not to be cut which indicate that trees were sanctified by the people who through religion tried to conserve vegetation and forest. The Agni Purana even prescribed death penalty for pollution of ponds (Dutt 1903: sloka 162). The Manusmriti condemned cruelty towards animals and stated that the killer of the cattle is doomed to die as many times as there are hair on the skin of the cattle. As all the rites, rituals and traditions are made by human beings and the epics, Puranas, Dharmasutras, Dharmashastras etc., are composed by them, it indicate that the ancient Indians had a great concern for the preservation and conservation of nature and the natural world.

The 6th century BCE, which is regarded as the beginning of the historical period in India is considered as a breakthrough in the environmental history of India. It was a century which marked cardinal epochs not only in the field of religion, culture, urbanization and polity but also in the field of environment. This period marked the development of sixteen Mahajanapadas (great states) in different parts of northern India which were closely linked with the environmental factors. The capitals of these states were strategically located either on river banks
or on the foot hills of the mountains, evidently because of the water facility and for the purpose of defence / protection. The rivers and mountains formed the natural boundaries between the two kingdoms and the concerned states tried to maintain and protect them. Endowed with various natural resources and encircled with a favourable geographical location along with a number of perennial rivers and impenetrable mountains, the kingdom of Magadha became able to carve out a powerful empire during the 6th century BCE. The most important technological development of this period which supported in many ways towards the preservation and protection of the environment is the massive use of iron (Sahu 2006: 123 ). It was the period of second phase of urbanization in India, the first being that of the Harappan civilization. It was a period which marks the beginning of a new agricultural economy in the Gangetic basin which gradually led to the development of towns and cities. Shravasti, Champa, Rajagriha, Saketa, Kaushambi, Banaras, Kushinara and Taxila were some of the urban centres developed during this period. Panini, the first grammarian of the Sanskrit language who belongs to c. 5th century BCE, tells us that fields were ploughed twice or thrice and were classified according to the crops grown on them. The early Buddhist texts also mentions three different types of agricultural fields, i.e. best, middling and the inferior quality along with reference to the knowledge of irrigation.

The principles of Jainism and Buddhism propagated by their respective founders i.e. Vardhamana Mahavira and Gautama Buddha during the 6th century BCE are closely related to environmental issues. Both Jainism and Buddhism advocated a gentle and non-aggressive attitude towards nature and prudent use of resources. The principle of ahimsa of Jainism was practised not only towards human beings, but towards all living creatures including animals and plants. In other words, by not killing or destroying plants or animals one can help to maintain the ecological balance. The Jain scriptures tell us: “The Arhats (venerable ones)of the past, present and future discourse, counsel, proclaim, propound and prescribe thus in unison: Do not injure, abuse or press, enslave, insult, torment, torture and kill any creature or any living being.” Vardhamana Mahavira (great hero) said: “There is nothing so small and subtle as the atom, nor any element so vast as space. Similarly, there is no quality of soul more subtle than non-violence and no virtue of spirit greater than reverence for life.” Further, he proclaimed: “One who neglects or disregards the existence of earth, air, fire, water and vegetation disregards his own existence which is entwined with them.” The Jains believed that the universe is eternal and divided into an infinite number of cycles, each consisting of a period of improvement (utsarpini)
and another of decline (*avasarpini*). According to them the process of decline will continue for 40,000 years after which things will improve again, only to be lost in the morass of decline and so on for all eternity (Sen 1988:57). They believed that the whole universe functions through *jiva* and *ajiva* of which the former is the enjoyer and the later is the enjoyed. The Jains vehemently condemned the evil practice of animal sacrifice. All these reflect that the Jain code of conduct was profoundly ecological and Jain faith declares unequivocally that waste and creating pollution are acts of violence. It is very significant to note that both Vardhamana Mahavira and Lord Buddha got their supreme knowledge under two giant trees: Mahavira attained *kevalagyana* (supreme knowledge) under a *sal* tree and Lord Buddha became enlightened one under a pipal tree (*aswastha vriksha*), known as *Bodhi* tree on the banks of the river Rajupalika and Niranjana respectively. The *Bodhi* tree in the Buddhist religion is regarded as the embodiment of enlightenment. Not only Mahavira, all the twenty four *Tirthankaras* of Jainism were closely associated with environment in one way or other. This shows that how man could be able to attain supreme knowledge in serene and pollution free environment.

Lord Buddha’s compassionate nature and the principle of adaptability teach us how to adjust and cope with the environment. Buddha, as an enlightened being saw the interdependence of nature and advocated that there should be a proper harmony between human beings and nature. In the *Jatakas*, Buddha is symbolized with different trees; therefore, trees are regarded as objects of worship in Buddhism. It appears that Buddhism adopted the concept of tree worship from the contemporary Hindu (Vedic) religion to represent Buddha through symbolic trees (Majumdar 2004: 37) His holiness Dalailama highlighted the ethical and ecological vision of Lord Buddha in the following words:

“Destruction of the environment and the life depending upon it is a result of ignorance, greed and disregard for the richness of all living things. This disregard is gaining great influence. If peace does not become a reality in the world, and if the destruction of the environment continues as it does today, there is no doubt that future generation will inherit a dead world”(Bassett *et al* 2001:9).

During sixth /fifth centuries BCE owing to abundant natural resources and suitable environmental and climatic conditions, the kingdom of Magadha could establish a vast empire in northern India locating its base on the Gangetic basin at Rajagriha in Bihar. In the words of D.N.Jha (2003:86) “Its [Magadha] favourable geographical position enabled it to control the
whole lower Gangetic plain, and its rich alluvial soil provided a strong agricultural base. The thick forests beyond Gaya in south Bihar supplied timber for buildings and elephants for the army”. From the Hathigumpha Inscription of Kalinga (ancient name of modern Orissa) king Kharavela, it is known that Mahapadma Nanda (fourth century BCE) of the Nanda dynasty who ruled from Pataliputra and sometimes considered as the first empire builder of India dug a canal in ancient Orissa (Kalinga) near Bhubaneswar which was extended by the great Kharavela during his reign period (1st century BCE). The Mauryas who succeeded the Nandas made great endeavours for the development of environment, and did many things in this direction. The Arthashastra of Kautilya and the Indica of Megasthenes throws welcome light on this aspect. (Kautilya was the mentor and prime minister of Chandragupta Maurya and wrote a book named Arthashastra which is on the state craft and polity. Megasthenes, a Greek ambassador who came to the court of Chandragupta Maurya wrote a book known as Indica which is now available in a fragmented form.) The Arthashastra of Kautilya contains laws about the environment. According to Kautilya it should be the dharma (moral duty) of each individual in the society to protect nature. Kautilya (Shamasstry 1956:222 and 262) prescribed fines related to the cutting of different parts of trees. According to him

“For cutting off the tender sprouts of fruit trees, flower trees or shady trees in the parks near a city, a fine of 6 panas shall be imposed; for cutting off the minor branches of the same trees, 12 panas; and for cutting off the big branches, 24 panas shall be levied. Cutting of the trunks of the same shall be punished with the first amercement; and felling the same shall be punished with the middlemost amercement. In case of plants which bear flowers, fruits, or provide shade, half of the above fine shall be levied.”

Kautilya (Shamasstry 1956: 2.3.4) also recommended sylvan surrounding for residence and pinpointed importance of lakes, groves, gardens, hillocks to make a city worth living which gave rise to a distinctly comprehensive science in ancient India, called arboriculture which dealt with the construction and maintenance of gardens and planned greenery (Shukla 1970:179-182). The Maurya period marked so phenomenal development in the field of agriculture that the Maurya rulers appointed a superintendent of agriculture known as sitadhyaksha to look after the growth and promotion of agriculture. “Possessed of the knowledge of the science of agriculture dealing with the plantation of bushes and trees (krshitantragulmavrkshhayurvedajnah), or assisted by those who are trained in such sciences, the superintendent of agriculture[sitadhyaksha] shall in time collect the seeds of all kinds of grains, flowers, fruits,
vegetables, bulbous roots, roots, *pallikya*, fibre-producing plants, and cotton” (Shamasastry 1956:127). The agricultural progress must have owed a great deal to the provision of irrigation facilities by the government. The *Arthashastra* also refers to the distribution and measurement of water for irrigation. According to the Girnar Rock Inscription, Pushyagupta one of the governors of Chandragupta Maurya built a dam across a river near Girnar in Saurashtra. Ashoka, the great Maurya who became a righteous and non-violent human being after the devastating Kalinga war of c. 261 BCE through his edicts prohibits animal slaughter and, thus, encouraged the growth of animal world. His stress upon the plantation of tree at various parts of his empire (Chaudhary: 49) not confine to beautification alone but goes much beyond.

The Mauryas were succeeded in the north India by the Sungas and Kushanas and in the south by the Satavahanas of Andhra who also gave emphasis on the preservation and protection of environment. Depiction of animal figures, trees and vegetal motifs in fact dominated the post-Maurya art and sculpture. The *Periplus of the Erythrean Sea* (c. 1st century CE) and Ptolemy (c.2nd century CE) furnish valuable information about various aspects of environment during this period. Kalingan emperor Kharavela, a great supporter of nature and environment extended the canal constructed by Mahapadma Nanda three hundred years ago from Tana Sulia to Kalinganagari, his capital city (Sahu 1984:339). Because of natural beauty and suitable environment Kanishka established his capital at Purushapura, the extreme northwestern part of India. During this period, Rudradaman, the most important Shaka ruler repaired the Sudarshana Lake which was in use for irrigation in the semi-arid zone of Kathiawad from the time of the Mauryas (Jha 2003:115). The Satavahanas were famous for their adventurous maritime activities. They, along with the Kalingans plied across the deep sea to far off countries of Southeast Asia and Ceylon/ Sri Lanka where they not only carried out trade and commerce but also disseminated the Indian culture and civilization.

The Gupta period which is considered the golden age of the ancient Indian history marked significant developments in the arena of environment. It was an age of prosperity and is known as the classical age in the Indian history. Fa-Hien, the Chinese Buddhist pilgrim who visited India during the reign of Chandragupta II (c. 375 CE to 415 CE) made references to natural and ecological aspects of the Gupta period. The Allahabad Pillar Inscription mentions that Samudragupta, the mighty Gupta ruler conquered the forest states of central India.
(atavirajyas) which indicate that central India was filled with dense forests and mountains. Agriculture tremendously flourished during this period and stress was given on the importance of agriculture (Bongard Levin 1998:130). The later Gupta and post Gupta periods marked the development of two significant things, i.e. growth of feudalism and the decay of urban centres which were seriously affected by the environmental factors. Feudalism led to the emergence of feudal lords and the expansion of agriculture which ultimately involved in the irrigation issues. It is believed that when agriculture extended people became more interested towards cultivation of land instead of long distance trade as a result, trade to some extent was declined leading to ultimate decline of urbanization and urban centres in ancient India. In the words of D.N.Jha (2003:156) “The extension of agriculture helped the process of the formation of new states by providing a stable agrarian base from the late Gupta period, when trade ceased to play a major role in socio-political transformation”. People used the water of different rivers mainly of Ganga for irrigational purposes.

The poets, astronomers and scientists of the Gupta period were greatly influenced by the environment. Kalidas, the renowned literary figure of ancient India who probably belongs to the reign of Chandragupta II, in his work Ritusamhara describes the six seasons in relation to shringara. Meghaduta, (cloud messenger) another poetical work written by him reflects various aspects of nature, especially of clouds. Aryabhatta, the great scientist and astronomer and the author of the Aryabhatiyam, who flourished in the fifth century CE contrary to the existing notions, opined that the earth revolves around the sun and rotates on its axis which is a great contribution to the world of natural science. The Panchasiddhantika of Varahamihira (c.6th CE) deals with five astronomical systems (siddhanta).

Harshavardhan (c. 606 CE to c. 647 CE), the greatest ruler of the Pushyabhuti dynasty ruled over northern India during the 7th century CE. The Chinese pilgrim Hiuen Tsang (Yuan Chwang) (630 CE to 643 CE) visited India during the reign period of Harshavardhan. Harsha though started his rule from Thaneswar in Haryana subsequently realizing the importance of Kanauj which was located on the Gangetic basin later on shifted his capital to the later place. He convoked a religious assembly at Prayaga on the bank of the river Ganga under the presidency of Hiuen Tsang. As per the description of Banabhatta, his court poet, Harsha in course of his search to find out Rajyashri, his sister during the time of her distress, made friendship with Vyaghraketu.
of the Vindhya forest who introduces him every creek and corner of the hills (Mookerji 1965:26) which reminds us the friendship of Rama with Sugriva of the *Ramayana* period. Harsha recovers his sister when she was ‘prepared to enter the funeral pyre’ in the Vindhya forest. It indicates one thing that the Vindhya Mountain was impenetrable during those days. Huien Tsang in his eye witness accounts refers to many natural spots and vividly described about them. The Chola kingdom in the south, ruling from Tanjore, their capital became a great maritime power because of its location on the extensive sea coast. Similarly, throughout the Indian history environment has got its due weight. Almost all the kings, in spite of their variation in personal aptitude take concrete steps for the management of water and forest; undertake irrigational activities, constructed canals and bridges and planted trees for the benefit and welfare of the public.

From the foregoing analysis it is evident that the early Indian attitude towards nature was a conglomeration of spiritual and philosophical thinking as well as social awareness and environmental ethics (Das 2003:135). The early Indians realizing the contribution and value of nature gave it prime importance and devised the ways that how nature could be protected from destruction and environment be made free of pollution. While framing other norms of life they tried to formulate some principles to make the society conscious about the adverse effects of pollution and thereby not to disturb eco-balance. To save the living world and the organism we should review the past history and be alert and conscious to extend our best efforts for its protection and preservation otherwise the posterity will face the danger which we can not imagine at present. The study of environment in recent times not only confined to the scientists, engaged in various branches of biology and ecology rather calls for an active and independent role of historians to develop a new paradigm for the future (Chakrabarti 2007:11).

Environment awareness, however, is not a recent phenomenon. Genesis of this awareness may be traced back to remote antiquity. Man has an ‘inborn ecological sense’ and environment awareness is an integral part of human culture ingrained in the philosophy and tradition of early civilizations (Das 2003:130). The early Indians comprehend the fact that the eco-balance enhances the quality of life. They had great respect towards environment. To avert pollution that invites multiple problems, they had not only developed a high tradition of eco-friendliness but also a strong sense of hygiene. The Vedic texts, in order to surmount hazards of pollution put a bar on indiscriminate cutting of trees (Dwivedi, 1987: 69) and provided instructions not to
pollute water with excrements (Apte 1898: 5.101). The *smṛti* writers also framed enormous rules and regulations against activities detrimental to the quality of environment. Yajnavalakya, one of the *smṛti* writers while grouped offence like cutting of branches of a tree or limb of beasts in the range of crime (Stenzler 1849: 2.227ff), Katyayana considered it a serious offence that involved injury to trees, shrubs and creepers (Kane 1933: 793). In the *Charaka Samhita*, a classical text on Indian medicine which warned people of the side-effects of natural disorders (Vidyasagara 1896: 3.2,3.6) we find the significant word *vikṛti* for pollution(Ibid:1.4, 3.20, 8.94). It clearly mentions that life-span of the living beings is dependent on coordination of the bio-world (Ibid: 3.21). It also speaks of sound pollution (Ibid:*Sarira Sthana*, 1. 118-119, 128) and pollution through inhalation of irritant odours.

Environment now is facing a number of crises. All the natural resources available on the earth have their limits, over exploitation of which leads to environmental crisis in some form or other. Environment, in fact, is at a very dangerous stage and polluted owing to different causes mainly of manmade. The most pertinent need of the hour is its protection, conservation and proper use otherwise the living world will be endangered into inevitable dangers. Man has to adopt the nature, not vice versa. In the words of M.K.Gandhi, “the earth provides enough to satisfy everyone’s need; but not for anyone’s greed.” The U.N Conference of Human Environment in Stockholm was held in 1972 in order to draw attention of the world to the imminent global catastrophe due to pollution of environment and depletion of natural resources (Das 2003: 129). Stockholm declaration, in fact was a major step taken by the world powers towards the preservation, protection and improvement of environment. The Indian Government through constitution and by the implications of law, passing a number of Acts tried to protect the environment. To conclude, we can say that “We are the generation with the awareness of a great danger. We are the ones with the responsibility and the ability to take steps of concrete action, before it is too late.”

References


*Bhavishya Purana*, 1910, Bombay: Venketeswar Press.


Dutt, M.N (tr.), 1903, *Agni Purana* 2 Vols (Calcutta).


Sahu, B.P, 1988, *From Hunters to Breeders (Faunal Background of Early India)*, Delhi: Anamika Prakashan.


