



ECOLOGICAL CONCERN OF BUDDHISM IN EARLY INDIA

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The history of ecology, a basic determinant of the magnitude of progress of human civilisation, has by and large remained ignored. For example, the scope of monograph touching upon the theme is limited primarily to methodological constructions and colonial developments.¹ Another publication looks at the theme disorientedly.² This trend becomes even more glaring in the context of the construction of the ecological history of Early India. Even a volume of more than a thousand pages devoted to this theme, in the context of South Asia dismisses the issue almost perfunctorily by ignoring any serious exercise to identify even the broad contours of the trajectory of ecological shifts.³ A recent volume covers a long period from the Harappan to independent India, predictably the essays on colonial and independent India outnumber those on pre-colonial.⁴ Another recent publication presents a comprehensive survey of environmental history in ancient and early medieval India. It examines significant aspects of early Indian society and state, their relationship with the natural environment. Presenting a multidimensional analysis, this volume discusses various aspects of the history of the environment in early and early medieval India like : deforestation, agricultural expansion, settlement pattern, and royal sanctions and charters related to forests; development of irrigation and water resources; significance of marginal communities, and the impact of Puranic religion on topography; pastoralism and agrarian economy; botany and plant sciences in ancient India. No doubt first time a history of early India has been constructed from this perspective.⁵ It is indeed not the case that historiography permits a unified and coherent view but it is certainly possible to take stock and then try to advance the outlines of a different, more nuanced way of looking at the *longue duree*. From this perspective the paper attempts to delineate the context and locate the ecological concern of Buddhism in early India.

The gradual expansion of the plough based agriculture from the later Vedic period was preceded by a deliberate policy of deforestation and its intensity was accentuated with strengthening of the emerging civilizational network. This marked the beginning of a process of ecological degradation that played a crucial role in subsequent social formations in early Indian history. Historically the context and attributes of the ecological susceptibilities of Buddhism can be located rightly from the days of the Buddha.⁶ From the 6th century B.C. one encounters a trend towards growing colonization of fertile land in the Ganga valley and the neighbouring zones,⁷ a trend that had emerged as organised community efforts in the previous centuries itself as is evident from the *Sathpatha Brahmana* a legend of Vadegha Mathava.⁸ Initially the help of fire and subsequently the use of iron tools facilitated

the process leading to the emergence of many settlements. The availability of a large amount of surplus not only strengthened the process of state formation but also promoted large scale resource exchange, i.e. trade and urbanization. As these newly founded institutions gained in strength, the further exploitation of resources became more organised. This marked the inauguration of a vicious cycle leading to the undermining of the erstwhile pattern of resource use. The situation worsened further due to large scale destruction of both animal and vegetative resources of the numerous elaborate Vedic sacrifices. This development obviously overarched the existing resource base. Now the society moving into a phase analogous to the K-strategy of ecology, people would have required a new belief system, stressing more careful and sustainable pattern of resource. Such a belief system appealed the agricultural component of the population but opposed by the Brahmanas, the votaries of the *yajna* system. Buddhists responded to this and protested against the hegemony of Brahmanas, the wasteful burning of endless quantities of clarified butter and wood and the slaughter of animals in sacrificial rituals.⁹ Many *Jatakas* refer to anti-sacrifice¹⁰ and anti-slaughter¹¹ attitudes and attached it with transmigration. Thus Buddhism did perceive this crisis and responded to it by laying emphasis on the conservation of resources and by outlining ways to restructure the contemporary mode of its use.

The Buddhist texts do not mention the exact word for ecology, nevertheless, the Pali equivalent which comes closest to ecology is *pakati* (Skt. *prakrti*). The word *dhammata* and *niyama* are used in the Pali literature as ‘natural law or way.’ Possibly the *jangala* had a stronger ecological connotation in the Buddhist texts. The equivalent Pali words (the English forest) such as *aranna*, *atavi kānana*, *vana pavana*, *upavana*, *vana*, *kammika*, *gumba*, *vanaka*, *vanataram*, *vanamsadheti*, *vanam* etc. are found frequently. The Buddhist literature stresses that nature and human beings need to live in a close harmony and plants and animals should be the objects of unlimited kindness and benevolence since they do not demand anything for its sustenance and extends generously the products of its life activity, it affords protection to all beings, offering shade even to the enemy who destroys it. “It is treacherous to break the branches of a tree under whose shade one sits or sleeps (*Peta-vatthu*, verse 259). The Buddha has spent most of his life in forests, which in turn has a great impact on his thinking and life-style. The members of the early Buddhist *samgha* used to dwell under trees, in forests and caves caring for the flora and fauna around them, which becomes also their source of sustenance. The chief events in the life of the Buddha took place under the trees. He was born at the foot of a tree in Kapilavastu, he attained Enlightenment at foot of the Bodhi tree in Bodhagaya; he breathed his last under the *sala* grove in Kusinagara. He preached Abhidhamma to his mother Mahamaya also at Tavatimsaloka under the Paricchattaka tree. The Buddha’s constant advice to his disciples also was to resort to natural habitations such as forest groves. There, without being disturbed by human activities, they could without extraneous deviation engage themselves in meditation. Even when the monastic system came to be established, despite the necessity of dependence on alms which linked the monasteries to the *grama*, the ideal image remained that of monks in forest monasteries.¹² In the Deccan, the early monasteries at nodal points in the western

Ghats were clustered around caves, some natural and some deliberately hewn out into the volcanic rock: This did not require extensive forest clearance as did the monasteries on the plateau.¹³ Possibly Buddhism encouraged monastic life a major part of one's life was to be spent, one way or another in the forest. Thus Buddhism perceived the forest as a metaphor for ecological balance.

The Buddhist concept of human morality manifests natural environment. In this context the *Aggannasutta* suggests two points : (i) it draws a direct linkage between the degeneration of nature and the deterioration of human morality, and (ii) the moral deterioration is invariably linked with a tendency to resort to excessive exploitation of natural resources.¹⁴ The Buddhist perception becomes more pronounced in the *Chakkavattisimhanadasutta* which takes unimaginable miseries as the ultimate outcome of this practice.¹⁵ The Buddha in a discourse in the *Anguttaranikaya*, even hints at the ecological devastation that is caused by a over exploitation of the resource base when lust, greed and wrong-values grip the heart of humanity and immorality becomes widespread in the society,¹⁶ the Buddhist morality therefore, needs to be viewed as a form of praxis aimed at both conserving the natural resource and putting it to proper use. Contentment is a highly praised virtue in Buddhism¹⁷ and so is selflessness.¹⁸ An exemplary character is one leading to a simple life with few wants that are easily satisfied.¹⁹ Miserliness²⁰ and wastefulness²¹ — the two degenerating extremes are equally deplored. Frugality is a virtue in its own right, a point poignantly illustrated by Ananda's dialogue with king Udena regarding the uses of robes by monks. "When new robes are received the old robes are used as rugs, the old rugs as dusters, and the old tattered dusters are kneaded with clay and used to repair cracked floors and walls."²² Thus while nothing is wasted, those who waste are derided as 'wood-apple eaters,'²³ i.e., one who grounds both the ripe and unripe fruits. It is in tune with this spirit that Buddhism advocates a non-aggressive way of using natural resources. The *Sigalovadasutta* asks a householder to accumulate wealth as a bee collects nectar from a flower.²⁴ Like a bee gathering nectar to turn it into sweet honey without harming either the fragrance or the beauty of the flower, a human being is required to make appropriate use of nature so that a beneficial man-nature relationship is not threatened.

The Buddhist emphasis on non-violence is another manifestation to preserve ecological balance. The large-scale destruction of the living human life as a consequence of the process of state formation, animal-sacrifices, dietary habits and plant-life due to deforestation — was a serious threat to the existing equations between man and nature. The Buddhist articulations of non-violence emerge as a major instrument of social action. The dictum of the Buddha's welfare of being is "*bhuta va sambhavesi va save satta bhavanti sukhitatta (Suttanipata, Mettasutta).*" According to the *Samyuttanikaya* the definition of *ahimsa* (non-violence) is "*yokayena vacayamanasa ca na himsati sabbamahimsaka homti yo param na vihimsatiti (Ahimsakasutta).*" Thus the vibration of life is bestowed upon non-violence. The Buddha condemned and ridiculed sacrifices. "At the sort of sacrifice (where) ... creatures are put an end to is neither of great fruitfulness nor of great profits nor of great renown, nor of widespread effect. It is just as if a farmer were to enter a wood taking with him plough and seed, and were there, in an

untilled tract, in unfavourable soil, among unuprooted stumps, to plant seeds that were broken, rotten, spoilt by wind and heat, out of season, not in good condition, and the god were not to give good rain in due season.”²⁵ The Buddha prescribed that every person should look upon other being with compassion as mother takes care of her only child (*Samyuttanikaya Padasutta*). The *Jatakas* suggest an intimate relationship between man and nature. For example, the *Mrigapoteka Jataka* describes how an ascetic brought up a deer with all his affection which had lost its mother. In this connection a narrative regarding the life of the Buddha may be referred to. Once a flock of sacred ducks was passing with unadulterated joy over the sky. Gautam noticed their cheerfulness. Suddenly one of them had been stuck with an arrow and fell down on the ground. The Sakyaputra picked up that very injured duck with compassion and gave back its life by removing away the arrow. The narrative is indicative of ecological balance as it shows there is no difference between the human life and animal life. For the Buddha the perfect man is one who “abstains from injury to seed life and plant life.”²⁶ Even the branch of a tree giving us shelter should not be destroyed.²⁷ The general Buddhist attitude of deference towards plant life is illustrated by the fact that huge trees such as the iron-wood, the sala and fig tree are acknowledged as Bodhi tree, trees under which the former Buddhas attained enlightenment.²⁸ In tune to this spirit, was the construction of parks and pleasure groves for public use has been identified in the Buddhist tradition as important source for gaining spiritual merit.²⁹ In practice, the monks used to follow the principle of non-violence to entire flora and fauna and even their reflections are noticed on the art of Bharhut, Sanchi, Bodhagaya, Amaravati and Nagarjunikonda and the sculpture of later period also.

The Buddhist philosophical underpinnings allude to ecological consciousness. The principle of the law of nature as propounded in the Buddhist literature as *pratitya-samutpada* reflects its concern of ecological consciousness. The *pratitya-samutpada* (Pali – *paticcasamuppada*) enumerated in the *Vinaypitaka Mahavagga* such as *avijja* (*avijja* : unawareness of the true nature), *samkhara* (*samskara* : mental impressions for the said unawareness), *vinnana* (*vijnan* : consciousness in an unawared state due to mental inclinations), *namarupa* (*namarupa* : mental and physical constituent in respect of a living being), *salayatana* (*salayatana* : six organs of sense and their objects in respect of a human being), *phassa* (*sparsa* : contact of the sense organs with the objects), *vedana* (*vedana* : sensation through the contact to feel good, bad, neutral), *tanha* (*trishna* : desire to allure good, to avert from bad and to endure neutral feelings), *upadana* (*upadana* : clinging with stranger desire for the above), *bhava* (*bhava* : desire for re-existence), *jati* (*jati* : birth of a living being), *jaramaran-soka-parideva-dukkha domanassa* (old age, death, grief, lamentation and sorrow. Those which undergo through the above process of change continuously are regarded as the constituted *samkhata* (*samskrta*). Whatever does not come under the above causation and effectuation are the unconstituted (*asamkhata*). In the Buddhist scriptures an unconstituted has neither origin, nor, thereby decay; nor, therefore, any change (*na uppado na vayo thitassa annathattam*).³⁰ That is the *nibbana*. Ecological questions do not recur in respect to those which do not undergo any change in the law of nature. The eco-system with its empirical relevance refers to the interdependent process in the diversity of

the nature (*prakriti*). In respect to the phenomenal beings whether living or non-living, sentiment or insentiment in the nature is scientifically the eco-system. The human beings having six organs, as the Buddhist texts state, are not excluded from the eco-system in the nature. The nature refers to not only the global world but also to the cosmic world as well. In the Buddhist context *sattepatthana* (mind fullness) is the solution for ecological imbalance.

Buddhism considers that all actions of human beings play as main role in creating a pleasant or unpleasant world. Since, the actions are accumulated in the mind, all the transformations of outer phenomena are ultimately linked to it. Moreover, just as mind and body of a person are independent, life and nature or more specifically, unmanity with environment, are equally dependent on each other. The relationship between humanity and environment can be seen in the theory of five natural laws (*pancani yamadhamma*).³¹ According to this theory, there are five natural forces at work, namely *utuniyama* (season law), *bajaniyama* (seed-law), *cittaniyama*, *kammaniyama* and *dhammaniyama*. While the first four laws operate within their respective spheres, the last mentioned law of causality operates within each of them as well as among them. These five laws demonstrate in a reciprocal causal relationship with changes in one necessarily bringing about changes in the other. The awareness of the fact that everything, including man himself is impermanent and that man is subject to the laws of causality, must be seen as an important basis for a proper understanding of man's role in nature. Such an awareness promotes humility and thoughtfulness. The *samgha* was the main instrument of the Buddha to execute his preachings and convey the same to the common people. The rules for the process of the *uposatha* ceremony and recitation of *patimokha* rules in the *samgha* reflect its ecological relevance. The recitation of the *patimokha* in the form of a confession ceremony tends to motivate ecological harmony at three levels with respect to the individual and the society : (i) At the individual level, the purity of conduct or *siladhamma* of each individual is ascertained by the *samgha*, (ii) besides the moral conduct of an individual, the morality at the social level and of the entire community was also taken into consideration, and, (iii) lastly, the *patimokha* rules and fortnightly *uposatha* observance symbolized physical or rather, environmental relationship between the animal world and other living beings associated with human beings. The observance of the *patimokha* (*patimokkha-uddesa*) on the *uposatha* (*posadha*) day is not a monastic ritual in the Buddhist *samgha* but an obligatory vow to determine the entire purity (*parisuddhi*) of the members of the *samgha*. The recital of the *patimokha* in the congregation of the yellow-robed monks refers to the sumtotal of pure conduct among the inmates of the *samgha*. That leads to the perfect condition of the organization by the practice of the moral precepts (*sila*).³² The ecological relevance of the *uposatha* in maintaining harmony in the Buddhistic paradigm is, therefore, an important parameter for judging ecological concern in Buddhism.

This initial response of Buddhism to the changing resources use pattern in the 6th century BC became more marked as exploitation of nature intensified during the succeeding periods. At this juncture, the state took form of a mature monarchy with a contraction of political power in a single person, drawing less on kingship loyalties for administrative functioning and more on a impersonal structure backed

by coercive authority. Power and authority in the state system became dependent on revenue among other things. The state compulsion to generate and exact as much surplus as possible in order to sustain the centralised political structure characterised by a huge bureaucracy and a large army promoted provided impetus to found new settlements. The policy of deliberate deforestation on massive scale as worked out by Kautilya makes interesting reading.³³ Archaeology also corroborates the process of planned deforestation undertaken by the Mauryan state. A recent study of 74 excavated NBP sites identifies 32 sites with the early NBP culture and 57 sites with the late NBP culture.³⁴ Buildings in the Mauryan period were in all probability made of timber³⁵ creating a great demand of wood around towns and along major trade routes. The fortifications of Patna were of timber.³⁶ Kosambi thus suggests that at least around Magadha some amount of deforestation had taken place.³⁷ This process must have affected man-nature interactions and erosion of resource-base. The process of readaptation, which was inaugurated by Buddhism by attacking the bases of Brahmanism now succeeded in loosening the Brahmanical social hold. A deduction buttressed by the fact that while Chandragupta Maurya patronised Jainism, Asoka went for Buddhism.

The Asokan state, following the king's conversion to Buddhism, also sponsored a planned conservation campaign. Besides repeatedly exhorting his subjects to adhere to non-violence and himself setting personal example to that effect, Asoka also went for large-scale plantation of trees. From the inscriptions we know that Asoka spent a great deal on important public works. Hospitals were founded all over the empire for men and beasts, with free medical attendance at state expense. In fact Asoka was concerned with conservation of forests completely prohibiting burning down of forests.³⁸ Kosambi sees this an effort to protect settlements and to conserve natural resources.³⁹ However Thapar suggests the state had preserved forests as they were 'a source of revenue' which was provided by the tax on timber and hunters who maintained a livelihood from the animals in the forest.⁴⁰ The *Arthashastra* had suggested the employment of guards under the supervision of a 'Director of Forest Produce' so that unnecessary damage was not done to forests.⁴¹ Probably by the Mauryan period the final transition to agrarian food production had been made, particularly in the Ganga valley Asoka wanted people to be concerned about the devastation caused by this transition.⁴² For this purpose Asoka enunciated the policy of *dhamma*, the cardinal principles of which were non-violence and amicable family and sectarian relationships. In his major rock edict Asoka, by then a practising Buddhist, expressed genuine repentance over the atrocities committed by him in the Kalinga War and he substituted the royal hunting expeditions (*vihara-yatra*) with *dhamma-yatra*. B.D. Chattopadhyaya taking a clue from the major rock edict 13 of Asoka suggests "his (Asoka) exhortations with them (forest dwellers) failed, he could be compelled to eliminate them." This indicates incompatibility of Asoka's non-violent *dhamma* and the practice of the forest dwellers.⁴³ He further assigns 'if non-violent emperor Asoka's *dhamma* had one type of implication for the forest-dwellers, the Brahmanical *dharma* of a monarch, with its legitimate use of *danda*' could mean supersession of one kind of moral order by another.⁴⁴ This manifests his brahmanical perception of the state. This perception may be explained both in terms

of the sense of superiority of those who lived in the core area, and in terms of hostility of people in outlying areas to the evolution and expansion of the brahmanical tradition. But Asoka realising the situation adopted ideological mechanism of subordination to win over them. A Chakravartin ruler's ideal of controlling the land which extended north to south from the Himalaya to the seas was never really achieved except perhaps by Asoka. In this context Asoka made a clear distinction between people inhabiting the border of the empire and wild tribes in the interior of the empire. He certainly did not want to subdue these forest tribes through force and bloodshed, but wanted to be firm with them all the same. On the other hand, in the Second Separate Edict, he made an appeal to all unconquered people on his borders not to fear him and to follow the *Dhamma* initiated by him.⁴⁵ The *Dhamma-Mahamatras* were advised to inspire confidence among those who lived in the borders and induce them to practice the moral principles laid down in his policy of *Dhamma*. No derogatory terms such as *mleccha* were used in Asokan inscriptions to describe the forest tribes, the aim being to win them over through the spread of his ideas on *Dhamma*. Thus in areas especially the borders of the state and empire, ideological mechanism of subordination was attempted.

Romila Thapar suggests "Asoka lists those animals that were inviolate and some were inviolate on particular days. The list is curious, including as it does creatures unlikely to be killed for food, which could suggest their use in medicine and mention of particular days links the edict to ritual practices rather than environmental concerns."⁴⁶ No doubt Ashoka did not forbid killing of all animals, only a special list of animals and birds were protected. Even in the royal kitchens, the number of animals to be slaughtered had been reduced but not totally prohibited.⁴⁷ The Aramic Edict from Shar-i-Kuna suggests that the king should be emulated since now for 'the king only a few animals are killed.'⁴⁸ This cuts down the royal household's consumption of meat almost to a minimum. Only two peacocks and a deer could be killed every day.⁴⁹ The fifth Pillar Edict contains a detailed list of animals and creatures that were not to be killed and a further list of those that could not be killed on certain days. Killing of animals for sacrifices was totally inapproved of and was constantly mentioned in many of the edicts.⁵⁰ Asoka's love for the animals is attested by his art and edicts. He exhorted people in his minor rock edict to abstain from killing the living creatures and went a step further by introducing a law for stopping killing of animals in his minor rock edict IV. He sought to teach people how to respect creatures in his minor rock edict IX. In order to inspire people he resorted to display heavenly spectacles and powerful vehicles like an elephant in minor rock edict IV. Sculptural art as being a powerful means of display was also employed to evoke sentiments of appreciation for the virtues and grab of the creatures. The realistic representation of the animals in art was aimed at touching the human sensitivity for the just and kind treatment to the animals. Asoka's sculptural art fully avoided the depiction of the human beings. To reject human figural representation from sculptural art was not a Buddhist prohibition rather it seems to be the patron's decision.⁵¹ On the whole the Asokan state, on the one hand brought a greater awareness about the need to protect animal and forest wealth, at the time when their destruction was a potent reality. On the other hand the ideological policy of the king, the concept of *ahimsa* distanced hunting and

tribal communities from mainstream society. Thus as civilization spread, perceptions towards forest changed significantly and the state-society incorporated forests, forest dwellers, and tribes into its domain.

The ecological implications of the Buddhist injunctions notwithstanding, the upper and the middle valley of Ganga experienced a serious resource crunch by the 3rd century A.D. This led to the decline of urban centres, the weakening of trade network and the rejection of established normatives. The situation is characterised by *Kaliage* crisis.⁵² One of the features of the *Kaliage* is natural calamities.⁵³ At the ideological level this crisis was echoed in the later portions of both the *Mahabharata* and the *Puranas* in the form of *Kaliyuga* descriptions.⁵⁴ This was the area that witnessed the earlier round of deforestation during the historical period. The large-scale felling of trees that preceded the establishment of permanent settlements was further intensified from the 2nd century BC due to the wide spread use of burnt bricks for the construction of houses and baked tiles for roofing and flooring.⁵⁵ Coupled with it was the problem of over-grazing. The emphasis on the preservation of cattle wealth was obviously to support the expansion of iron-aided plough cultivation in the 5th century BC. With the beginning of the Christian era cow protection became an article of faith, so much so that even uneconomical cattle had to be fed resulting in the destruction of much vegetation. Forests were further cleared for cultivation. Deforestation through overgrazing and the direct clearing of forest led to serious ecological imbalances.⁵⁶ The earliest impact of the loss of adequate forest cover was felt in the area which had lost the cover first, i.e. the Panjab, Haryana, Western U.P. and the neighbouring parts of Rajasthan. The mid-Ganga Valley was soon afflicted by a crisis⁵⁷ that led to the dissolution of the ancient mode of production.⁵⁸ The contemporary Buddhist *samgha* did realise the intensity of the crisis, a point illustrated by the perception of its nature in the commentary on the *Chakkavattisimhanadasutta*. It tells : “When humanity is demoralised through greed, famine is the natural outcome when moral degeneration is due to ignorance, epidemic is the inevitable result; when hatred is the demoralizing force, widespread violence is the ultimate outcome.”⁵⁹ It echoes the spirit of the *Kaliyuga* crises and consequent transition in Indian history when it adds : “If and when humanity realises that large-scale devastation has taken place as a result of its moral decline, a change of heart takes place among the few surviving human beings. As morality is renewed, conditions improve through a long period of cause and effect and humanity again starts to enjoy gradually increasing prosperity and longer life.”⁶⁰ The renewal of morality in a way tantamounts to readjusting of the existing pattern of resource use in such a way as to accord centrality to the dual principles of conservation and minimum exploitation of nature.

The Buddhist had located the direct linkage between the human actions and ecological setting. In the 4th century A.D., when the upper and middle valleys of Ganga were afflicted by an ecological crisis of unprecedented magnitude,⁶¹ Vasubandhu was asserting : “The world is created from intentions.”⁶² In other words, “the environment we find ourselves in and the way we experience it are the consequences of how we have chosen and agreed to live. If our intentions are driven by self-centered greed and attachment, then that will determine the way we perceive

the external environment, i.e. we will see it as a resource to be exploited to satisfy our desires and protect us against the things that we fear. And since greed and attachment are short-sighted, mentally deadening and de-humanizing, the environment will reflect back those very qualities we inject into it. Decoying in inner cities, gutted hillsides and polluted rivers are, therefore, the consequence of intentions of human mind.”⁶³ That crisis of the 4th century AD was man-made and consequent of the destructive exploitation of the resource base were issues perceived with clarity in the contemporary Buddhist tradition. The Buddhistic response to the crisis can be located in the context of tremendous emphasis on compassion. The 8th century Buddhist poet Satideva “evoked this sense of universal sympathy with this image of life as a single organism, like a cosmic body. For just as the hand reaches out to a foot that is in pain, so does the enlightened person reach out in sympathy to those who are suffering. Insight into the interpenetration of all things transforms our immediate relationship with those around us, making it simply impossible to stand by with indifference and watch the world up in flames At this point, compassion stops being the deliberate doing of good, it becomes an instinctive urge.”⁶⁵ Satideva comments, “Although one acts in this way for others, there is no sense of conceit or amagement. It is just like feeling oneself; one hopes for nothing in return.”⁶⁶ Thus he attempts to impress upon the people their oneness with nature and the mutual interdependence of the two.

Thus the above survey not only locates the ecological concern of Buddhism but also illustrates a continuous pattern of responses to the problems afflicting the society. The ethical underpinnings of this doctrine suggests the asymbiotic relationship between man and nature and explains its consistent concern for the maintenance of a viable eco-system. With its emphasis on conservation and judicious utilization of resources, it made repeated interventions to help reformulate the successive pattern of resource use for protecting the society from the destructive impact of ecological degradation.

Endnotes :

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4. Mahesh Rangarajan (ed.) *Environmental Issues in India : A Reader*, New Delhi, 2007; Mahesh Rangarajan and K. Sivaramkrishnan (eds.), *India's Environmental History From Ancient Times to the Colonial Period : A Reader*, New Delhi, 2012.
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7. V.K. Thakur, *Social Dimensions of Technology : Iron in Early India*, Patna, 1993, pp. 26-27.
8. 1.4.1.
9. Madhav Gadgil and Ram Chandra Guha, *This Fissured Land : An Ecological History of India*, *op.cit.*, p. 81; see also, Romila Thapar, *From Lineage to State*, Delhi, 1984.
10. *Jataka*, Vol. I, no. 19.

11. *Ibid.*, nos. 13, 22, 31, 77; II. 219; III, no. 418; IV, no. 513.
12. Romila Thapar, 'Perceiving the Forest Early India' in Mahesh Rangarajan and K. Sivamakrishnan (eds.), *India's Environmental History*, *op.cit.*, p. 107; *idem.*, the same article in *Environmental History of Early India* (ed.) Nandini Sinha Kapur, *op.cit.*, pp. 142-160.
13. *Ibid.*
14. *Dighanikaya* (ed. T.W. Rhys Davids and J.E. Carpenter, 3 vols., London, 1890-1911), Vol. I, p. 80.
15. *Ibid.*, Vol. III, p. 71.
16. *Anguttarnikaya* (ed. R. Morris and E. Hardy, 5 vols., London, 1885-1900), Vol. I, p. 160.
17. *Ibid.*, II, p. 220.
18. *Dighnikaya*, I, p. 85.
19. *Anguttaranikaya*, IV, pp. 2, 220, 229.
20. *Ibid.*, Vol. II, p. 72.
21. *Dighanikaya*, Vol. I, p. 83.
22. *Vinayapitaka* (ed. H. Oldenberg, 5 vols, London, 1879-1883), Vol. II, p. 291.
23. *Anguttaranikaya*, Vol. IV. 283. The "wood-apple-cater" is a person who shakes the branch of a wood-apple tree and grounds all the fruits, both ripe and unripe. He then collects only what he wants and leaves the rest to rot. This wasteful attitude is deplored as not only anti-social but criminal. The unnecessary as well as excessive exploitation of resources is an anathema to Buddhism.
24. *Dighanikaya*, Vol. III, p. 188.
25. *Ibid.*, Vol. II, p. 370.
26. *Suttanipata* (ed. Lord Chalmers, Harvard, 1932), v.241.
27. *Samyuttanikaya*, Vol. II, pp. 23, 47.
28. *Dighanikaya*, Vol. II, A.
29. *Samyuttanikaya*, Vol. I, p. 33.
30. *Anguttaranikaya*, Vol. I, p. 152.
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33. *Arthasastra*, Vol. II, I.24.
34. T. N. Roy, A Study of Northern Black Polished Ware Culture : In Iron Age Culture of India, Varanasi, 1986, pp. 66-91.
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37. *Ibid.*, p. 164.
38. Pillar Edict–V.
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