

CONTEMPORANEITY OF THE PERCEPTION ON ENVIRONMENT IN KAUTILYA'S ARTHAŚĀSTRA

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The basic issues of to-day's environmental awareness for preservation and prevention of its degradation are discernible implicitly or explicitly in a number of *Sūtras* in *Arthaśāstra*, considered to have been written in 4th Century BC by Kauṭilya. And these are not in any primitive form, but with fervent modernity. This is revealed when the intrinsic implications of the injunctions in *Arthaśāstra* are compared with the elements of environmental perceptions of the modern world, as contained in relevant legal provisions, or in the issues highlighted in environmental movements world over. The paper examines the contemporaneity of the ancient Indian wisdom in the context of the emerging global perception of environment.

Key-words: Anthropocentric, *Arthaśāstra*, Bio-diversity, Calamity, Co-natural, Kauṭilya.

Kauṭilya's *Arthaśāstra* contains a number of *sūtras* scattered over different chapters dealing with various aspects of statecraft and administration, which express awareness of environment comparable to the modern concepts and perceptions of the subject. Such comparison necessarily requires to be done on common denominator of issues irrespective of wide time gap. Thus, before proceeding with analysis in this line, it is necessary at the outset to clarify as to what is meant and considered while speaking of environment, specially why this perception has been attributed as the pressing priority of human attention and action. This is no easy task, as is clear from the maze of definitions and approaches to environmental problems by individuals, groups or schools. Some of the common phrases used in various ways of defining environmental problems include such concepts as the indiscriminate human activities, too much of exploitation of the natural wealths, associated with industrial productions geared to profiteering motives, distortions and vulgarisation of the science and technology, socio-political differentials existing between countries, continents, regions and within the same society. In this context, the definition propounded by Gordon Childe¹ covers the entire gamut. It states, "environment, of course, means the whole situation in which a creature has to live; it embraces not only climate (heat, cold, moisture, wind) and physiographical features like mountains, seas, rivers and marshes, but also factors such as food supplies, animal, enemies, and in case of man, even social tradition, customs, and laws, economic status, and religious beliefs". The definition apparently

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appears to be too simplistic and innocuous, but it covers the whole spectrum of human knowledge in classified disciplines, and at the same time, it provides the orientation about the role of human being in his physical and social environment. These concepts are immanent in the *sūtras* to be discussed.

ENVIRONMENT RELATED ISSUES

The issues of environmental concern dealt in *Arthaśāstra* may be classified as:

- (1) Natural set-up and resources, comprising land, forest, water, minerals etc.
- (2) Biological environment, comprising animals, aquatic life etc.
- (3) Physical environment, comprising floods, droughts etc.
- (4) Human society, including hygiene, famines, civic responsibilities, civil rights, human rights etc.

Natural set-up and resources :

Self protection is the basic instinct of the organic world. Need for protection and preservation of the natural elements around man derives out of his perception of the potential of nature in the creative and productive process for his own development. This process changes and did change in the entire span of human history, with the change of attitudes, concept and invention of technology. In the primitive society, nature's gift was obtained in the form as it was offered. With time, land, water, forest and other gifts of land-minerals, building materials etc. received much attention for economic activities with these elements. The concept of materials, as resources, capable of yielding desired outputs with certain applied processes and activities became operative and influencing force in shaping the social system. In *Arthaśāstra*, land received much attention, its potentials identified and classified according to the concept of its being a resource. Patterns of utilisation, improvement etc. of land were indicated. The various injunctions on land use, on do and don'ts, penalties and punishments specified for violation of these, rewards and incentives for proper use etc. demonstrate the awareness developed at that time for the preservation of land as a resource. In assessing the excellence of a country, the *Janapada*, the nature of land has been given much importance in *Arthaśāstra*. The ideal *Janapada* is the one which was "devoid of mud, stones, salty ground, uneven land ... endowed with agricultural land with protected pastures ... with farmers devoted to work." (6.1.8). In addition to the natural quality of land, the value of lands depends on man's operation on it, (7.11.9) that is, how he makes use of it. It was perceived that "cultivable land is better than mines because mines fill only treasury while agricultural production fills both the treasury and store houses". (7.11.10-12). Man's labour and activities being the main forces of converting the inert or neutral material and substance into productive resource, it was realised that

“As between land with the support of a fort and one with the support of men, the one with the support of men is preferable” (7.11.23), because “without men, like a barren cow, what could it yield?” (7.11.25). Human endeavours have been appropriately emphasised: “one trusting in fate being devoid of human endeavour perishes, because he does not start undertakings or his undertakings have miscarried” (7.11.34). But the danger inherent in aimless or anarchic activities was also foreseen, “one doing whatever pleases him does not achieve anything” (7.11.35) and “.he is the worst of them all” (7.11.36). Kauṭilya’s concern for natural resources is cloaked in different *sūtras* dealt by him under apparently unrelated topics. It is only when the underlying spirit and nuances of these are conjointly studied, that his acute awareness for the nature’s preservation becomes clear. While explaining the traits which contribute to the ‘Excellence’ of ‘Constituent Elements’ of the State (that is the king, the minister, the country, the fortified city, the treasury, the army and the ally), the characteristics which determine the excellence of the country have been described (6.1.8). And when conditions are otherwise or opposite to such as considered excellent for any of the elements, it has been termed and considered as calamity (8.1.3). Unlike the common meaning of the term, “Kauṭilya uses the word ‘calamity’ (*vyasana*) in the precise sense of any event which weakens any constituent element of a state, thereby preventing it from being used to its full potential.” (Rangarajan)². A calamity of a constituent, of a divine or human origin, may be derived from either ill luck or wrong policy. Undoubtedly from these perceptions emanated the injunctions to be imposed on activities otherwise harmful to land use, agricultural practices, preservation and development of forests, for their products and place for sheltering animals. The integrated approach for preservation, protection and development of land, forest, animals and vegetations is to be found in a number of *sūtras*. Judicious use, observance of non-observance of non-destructive and non-derogatory practices, by adhering to appropriate technology and avoiding such human actions as might bring about deterioration, have been advocated for preservation of environment. Appropriate use of resources and administrative control to restrain over exploitation, constitute the prime paradigm of environmental protection, and all these are to be found in the way land use, agricultural practices etc. were mandated.

Animal welfare and protection of bio-diversity:

Edicts and proclamations in *Arthaśāstra* bear ample testimony of Kauṭilya’s perception and concern about the living creatures-animals, both wild and domestic, and plants and vegetation. “Duties common to all are: abstaining from injury (to living creatures), truthfulness, uprightness, freedom from malice, compassionateness and forbearance” (1.3.13). While general proclamations were directed to the common people, high ranking officials used to be appointed with specific responsibilities and authority to execute them. Penalties and punishments were specified for violation of edicts. Thus, amongst the high officials, special positions were occupied by Director

of Forests, Supervisor of Animal Slaughter, Superintendents of Cattle, Horses, Elephants and Pastures. These officials were assigned with duties of protection of wild lives, ensuring proper rations for pet animals, regulating grazing, preventing cruelty to animals, preventing poaching of wild animals, ensuring proper care of domestic animals etc. and imparting penalties and punishments specified for violation of edicts.

Animals, particularly horses and elephants were given formidable importance, for their use in warfare. Cattle (cows, bulls and buffaloes), goats, camel, donkeys and pigs, in the crown herd were to be meticulously looked after, for which a Chief Superintendent of Crown Herd used to be appointed. Even individuals, whether owning domestic animals or not, were supposed to follow norms about their dealing with the animals. These attitudes may appear at the outset to have been evolved from authoritarian considerations, but edicts would dispel that they were totally derived of such. The official in charge of disposing non agricultural land was supposed to establish an animal park in conformity with the grain of the land, where all animals are welcomed as guests and given full protection. (2.2.4). Similar forests for elephants should be established providing due protection to the animals (2.2.6-7). Though such sanctuaries are meant to rear the elephants which could be captured for use in the war or other uses, indiscriminate capture or killing were prohibited. Any one caught of killing an elephant was to be executed (2.2.9). Killing or injuring animals and birds which were declared as protected species, in reserve parks and sanctuaries, were proclaimed as punishable acts (2.26.1). Lists of protected animals, fish, birds were drawn up. For killing of animals, birds etc. whose slaughter or capture is not customary, heavy punishment was to be imposed (2.26.2). Indiscriminate killing, even customarily sanctioned, of such species would not be allowed (2.26.3). Among customarily slaughtered for meat, killing of calf, bull and milk cow was prohibited (2.26.10-11). Animals within the sanctuaries and parks, found to be harmful or dangerous, were to be taken out of the sanctuaries and then killed (2.26.14).

Strict instructions were given for treating the domestic animals belonging to individuals, village communities or to the king. Village head-man was made responsible for preventing cruelty to animals. Stray protected animals or those from reserve forests found grazing at places where they are not supposed to be, should be driven off without hurting them (3.10.31). Stray cattle should be driven off with a rope or whip. People trying to attack such cattle should be prevented from doing so by all available means and those found to hurt the cattle were to be fined (3.10.33.34).

The herdsmen should be responsible for caring for the young, the old and diseased cattle and treat them when required. They should graze them in safe forests, after the thieves, wild animals and other kinds of predators have been removed. The pastures suitable in different seasons should be identified for grazing. Timid cattle should be provided with tingling belts to frighten snakes and wild animals; they should be taken

to safe watering locations through easily movable roads and which should not be infested with crocodiles (2.29.20-23). Diseased cattle, elephants and horses should be treated by physicians, proper food to be given to them, for which the quality and quantity of ration required to be given were specified. Details of care, training, treatment of horses and elephants, milking of cow etc. have been indicated. (Kangle).³

The following depicts the administrative injunctions related to the animal welfare and their protection. These are the acts which were considered as punishable, ranging from death, mutilation of limbs, nose etc. to pecuniary fines.

- (a) Trapping, injuring or killing of protected species, animals in sanctuaries (2.26.1),
- (b) Above offence committed by householders (for their personal use) (2.26.1), or game keepers or sanctuary guards allowing these offences happen (2.26.6, 2.29.16),
- (c) Trapping, injuring and killing of fish and birds whose slaughter is not customary (2.26.2), or deer or animals whose slaughter is not customary (2.26.2),
- (d) Killing or torturing to death a calf, bull or milk cow (2.26.11), or castrating the male of a small animal used for breeding (3.20.17),
- (e) Injuring animals with sticks or causing bleeding wounds to animals (3.19.26,27),
- (f) For allowing the bulls of a herd to fight each other or letting horned or tusked animals fight and kill one another (2.29.38, 4.13.19),
- (g) Riding or driving away temple animals, a stud bull or a cow not yet calved (4.13.20),
- (h) Killing of small animals like cocks, cats, dogs, pigs etc. (4.10.2),
- (i) Killing of small animals useful for its milk, hair, for riding or for stud (4.13.21).

Much emphasis was given on the rearing, care and protection of forests, gardens, orchards-these being considered as sources of revenue, besides being of recreational spots, like parks. The country side suitable for establishing animal parks or forests, as suitable resorts of elephants were classified.

The king is supposed to protect old-produce forests, elephant forests, irrigation works and mines that were made in ancient times and also should start new ones (2.1.39). The irrigation works, by Kautilya's definition encompassed flower gardens, fruit orchards, vegetable gardens, wet-crop fields, and sowing of roots (2.6.5). Forests should be established one each for the products of forests, due care is to be taken for their upkeep and factories for goods made from these products would have to be started (2.2.5).

Cutting of shoots of flowering or fruit bearing trees, or trees which provide shades was prohibited. The trees were not to be damaged either by cutting of small branches, or stout branches, or trunks or they must not be uprooted. For violation of each of these conditions, that is for harming the trees by cutting any part of a tree, pecuniary fines of variable amounts, depending on the types of injury to the trees, as described, were to be imposed on the offender (3.19.28). Any one doing damage even to bushes and creepers bearing flower or fruit or providing shade was liable to be penalised. Provisions of penalties were made for damage done to trees in holy places, penance-groves and cremation grounds (3.19.29). Heavy fines were also to be levied for causing harm to trees at the boundaries, sanctuaries, and also to the prominent trees.

Calamities:

Natural and man made calamities which can afflict population have been listed. Natural calamities are considered as acts of God, and prevention of these have been prescribed through worships, oblations and recitals of benediction. Side by side, the duties of citizens, king and his officials prescribed at the time of calamities indicate realistic and scientific approach to prevent, abate or adjust the calamitous situations to safeguard and save the population. Thus, during floods which normally happen during the rainy season, the population of the places situated by rivers and water bodies should shift to areas above flood levels. There should be elaborate preparedness, by way of collecting wooden planks, bamboos, boats, skin bags (inflatable), canoes, tree stems, rope braids, hollow gourds-so that these could be utilised for safe transportation away from flooded areas and for rescue operations. Strict instructions are there for attending to rescue operation, and any one found to be inoperative without valid reason was to be punished. (4.3.6-9).

Droughts have been identified as greater calamity than excessive rain: "The loss of the crops is a greater evil than the loss of sowings, as it involves less of efforts, drought (a greater evil) than excessive rain, as it involves loss of livelihood" (8.2.25). From the propitiations prescribed, it transpires that all the gods to be worshipped for alleviating drought, like Indra, the Ganges, the Lord of the Sea, are related to water. Though no appropriate measure to fight drought has been prescribed, yet the above indicates that measures for provision of water are called for during drought.

Fire, famine, diseases in epidemic form are the other calamities identified as greatly affecting people. Flood, it is perceived as more pervasive than fire, since the former carry away hundreds of villages, while the latter burns at most a village or its part (8.4.4). Similarly disease is considered to afflict only one region and remedies can be found for it, while famine afflicts the whole country and affects livelihood of vast population (8.4.7). Extensive relief measures are to be provided during the famine-seeds and food stuff are to be stored and afflicted people should be favoured with

food, or provided food-for-work, by way of construction of forts, water works, or should be sheltered with allies or in regions where crops have grown, or settled along the sea, lake or tanks and resort to fishing, hunting or cultivation along the water works (4.3.17-20).

Prevention from fire:

Prevention, preparedness and expeditious measures prescribed during natural calamities, demonstrate the mental faculty and prudence of understanding the causality of such calamities and accordingly the measures called for. Similar understanding is apparent from the edicts related to the cause of fire and measures to be taken. "In the summer, citizens shall take appropriate precautions against fire. They shall not light fires during the (two) middle quarters of the day; if food is to be cooked during this period, it shall be done outside the house".

"Every household shall provide five pots, a big jar, a trough, a ladder, an axe (for chopping down pillars and beams), a winnowing basket (for fanning away the fire), a hook (to pull away burning parts), a hooked rake (for pulling away the thatch) and a skin bag".

"During the night, householders shall stay near the front doors of their houses and shall not collect together".

"If a house catches fire, every occupant, owner or tenant, shall take immediate steps (to put it out)". (Rangarajan)⁴.

The City Superintendent was under strict instruction to watch and implement the instructions. "Constant inspection of places, supplying water, roads, water courses, covered paths, ramparts, parapets (and other) fortifications and the guarding of what is lost, forgotten or has run away (are the duties of the Superintendent) (2.36.42).

The king has also to follow precepts in this respect, that is in matters related to environment. "It is in the interest of the prosperity of the country, a king should be diligent in foreseeing the possibility of calamities, try to avoid them before they arise, overcome those which happen..." (Rangarajan)⁵

Civic responsibilities towards vicinal environment:

In so far as 'environment' is considered as the 'sum total of all conditions and influences that affect the development and life..', the human life, his behaviour, concepts, attitudes towards fellow members, community, outward world etc., in short all the highest forms of cultural patterns, are to be considered within the broad

spectrum of this definition. Human character being as it is, his intensity of concern generally peters outward from self to family to neighbours and lastly towards the greater world, outward beyond his immediate intimate spheres. His capacity and self-education to develop concern, comity, cooperation and attitude to live and let live amongst his fellow members and community determine his level of concern and care of the environment around him. Civic duties and responsibilities of every human being, perhaps, are the basic ingredients which offer the initial lessons and generate the higher philosophy of life and living within the wider world comprising all animate and inanimate environment.

When injunctions and directives in respect of these aspects are analysed, it becomes clear that these deal not only with the mundane affairs, like personal and community health and hygiene, cleanliness of the surroundings, avoidance of pollution of water etc., but expound also the inner lying philosophy and attitude expedient to be followed and practised as a good neighbour and protector of nature.

Harmonious, peaceful and dignified life of people was considered as most desirable and this mode of life was to be valued more than wealth and other worldly acquisitions. "Making enemies is a greater evil than loss of wealth" (8.3.18). In dealing with people harms that could follow from anger, lust and greed are to be properly understood and hence controlled. "Anger makes one the object of hatred, creates enemies and brings suffering on oneself. Excessive greed and lust bring about humiliation, loss of wealth and association with undesirable persons... (while both have bad consequence) being hated is worse than humiliation; whereas one humiliated is held in thrall by his own people and by enemies, a hated one is destroyed". (Rangarajan)⁶

The edicts meant for individual and community behaviour are in conformity with above perception.

It is desired that no one should behave in a manner likely to cause any harm to the immediate neighbourhood (3.20.15). To avoid any inconvenience or confrontation, the houses should be constructed in conformity with the demarcated boundaries to be laid with sufficient space between two houses (3.8.3-5); parking space for cars and quadrupeds, fire place, water storage arrangements, grinding mill or corn thrashing devices etc. should be placed sufficiently away from a neighbouring house (3.8.11); any construction by way of ditch, outside projecting staircase, ladder, water channel etc. are to be avoided (3.8.21); and for effecting such arrangements house owners, by mutual agreement, may get things done as desired, and should avoid what is undesirable (3.8.18).

The people are supposed to perform duties towards community living. "Every one shall contribute his share to the building of common facilities. No one shall obstruct

or prevent the lawful use of such facilities by others in the neighbourhood. Such facilities shall not be destroyed". (3.8.26,27). Sheds, courtyards, latrines, fire places, places for pounding grain and all open spaces are to be used as common property (3.8.28). "No one shall damage plants and trees in city parks, sanctuaries and holy places and cremation grounds, particularly those which bear fruits or flowers or provide shade" (3.19.28-30).

Anarchic life style, indiscriminate modes of waste disposal, ignorance, negligence or disregard of the consequences of careless activities which result in pollutions of air and water and bring about health hazards, were infallibly recognised. Means to avoid all these eventualities were indicated in edicts, for observance by every citizen, for violation of which penalties and punishments were proclaimed and for implementation of the dictates, officials were engaged. Thus, no one should throw dirt on the road, or allow mud and water to collect there, which would block the traffic movement; no one shall pass urine or relieve himself in and around holy places, water bodies, a temple, a royal property, unless forced by the effect of medicine, illness or sudden fear; no one shall dispose of dead bodies of domestic pets, like a cat, a dog, carcass of donkey, camel, mule, horse or cattle or a serpent killed, anywhere inside the city (2.36.26-30). Human dead bodies shall be cremated or buried only in designated grounds. Corpses are not to be thrown anywhere outside, and should be carried through prescribed routes; violation of these are punishable, both for these who do not follow the dictates or those (like gate keepers) who allow these. (2.30.31-33). Water course, water wells and dung hill should be placed only at specified places suitable for households (3.8.6), free flow of water in channels during rains must not be obstructed (3.8.23). These precautions are obviously meant to prevent air and water pollutions and ensure cleanliness of the surroundings.

It is interesting to observe some of human behaviours considered as a subject common to civil and criminal laws in India. It is dealt under the broad caption of 'nuisance', the perception of which is, perhaps, one of the concepts of civilized life and which entered into the law of torts from ancient times. (Injunctions in *Arthaśāstra* are comparable). "Even to-day this law of torts is available as a remedial assistance to the sufferer, by way of monetary compensation or granting order to the wrong doer requiring him to do or to refrain from doing some act (injunction)".

Nuisance can be divided into public and private nuisance. "An act or emission which materially affects the reasonable comfort and convenience of a section of people is a public nuisance. The sorts of activity that amount to environmentally damaging public nuisances include... carrying of offensive trades, rubbish dump, cess pit or other collection of filth that affect the health and habitability of a locality. Private nuisance affects only an individual or particular individuals, that is, those who have particularly become subject to the nuisance complained of". (*Chaturvedi et al*)⁷.

Several acts against nuisance were in vogue in metropolitan cities, cantonments and towns based on the standards of hygiene and sanitation.

Indian Penal Code provides punishment clauses for such acts as (i) negligent acts by individual(s), which are likely to spread infection of diseases dangerous to life, (ii) adulteration of food or drink intended for sale[§], (iii) adulteration of drugs, (iv) act of polluting water, (v) offence of making atmosphere noxious to health.

Public nuisance is considered a crime, though it can also be a tort in certain circumstances, while the private nuisance is always tortious.

ANALYSIS OF THE KAUTILYAN CONCEPT OF ENVIRONMENT AND ITS CONTEMPORANEITY

More than any other subjects dealt with in *Arthaśāstra*, the precepts, edicts and proclamations on environmental issues not only compare with the most modern concepts, but reveal a highly sensitive and transcendental mind. History proves that human concern for the inanimate world, need for its protection and preservation assumed a concrete shape in thought process and action programme only recently, after gradual sensitisation of human mind to these ends following the industrial revolution. Historians charted the trend of the social systems and their evolution in relation to the productive process in which nature was once treated “as little more than a resource to be tapped and as a sink into which to dump their wastes”. This unidirectional concept had its evil effects, even in contributing to the destruction of a civilization.

The “emergence, in stages, of the capitalist world system, which began in Europe in 1400s” ultimately culminated, through complex political and economic changes, to “the next great stage of capitalism’s advance, the industrial revolution, which took place in Europe in the late eighteenth and early nineteenth centuries and led to a rapid increase in the scale and intensity of production and to the development of a set of divisions that are at the core of our understanding of the modern world; the division between economy and nature, between capital and labour, and between center and periphery” (John Bellamy Foster)[§]. On this basis it is rightly recognised that the cause of degradation of nature lies within the system of a society. The earlier concept of nature resources became the mainstay in the production process catering to a world craving for more, greater and higher consumptions. Backlash of this became startlingly apparent from wider and large scale pollution and degradation of the biosphere, the ill effects affecting the mankind and portending long term irrevocable disastrous end

§ Comparable *sūtras* in *Arthaśāstra* are:

2.26.7 : (Traders) shall sell meat without bones, of deer and beasts freshly killed.

2.26.8 : For (meat) containing bones, they should give a compensation for loss.

2.26.12-13 : They shall not sell (meat that is) swollen, without head, feet and bones, foul smelling and (of a) naturally dead (animal). Otherwise, there shall be a fine of twelve *paṇas*.

results.

This situation generated the consciousness of the world wide problem of maintaining a safe environment for human existence, and only recently, the United Nations Organisation held in 1972 a conference on Human Environment (Man and Biosphere) in Stockholm. With the adoption of its resolutions, successive global conferences followed on various issues related to environment, and the concerted move on environment-related activities began. Some of the principles proclaimed during the conference are so relevant and similar to the edicts of *Arthaśāstra* that it justifies to reproduce them.

Principle 2 : “The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate”.

Principle 3 : “The capacity of the earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved”.

Principle 4 : “Man has the special responsibility to safeguard and wisely manage the heritage of wild life and its habitat, which are now gravely imperilled by a combination of adverse factors. Nature conservation, including wild life, must therefore receive importance in planning for economic development”.

Principle 8 : “Economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions on earth that are necessary for the improvement of the quality of life”.

Principle 9 : “Environmental deficiencies generated by the conditions of under development and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance as a supplement to the domestic effort of the developing countries and such timely assistance as may be required”.

Principle 13 : “In order to achieve a more rational management of resources and thus to improve the environment, States should adopt an integrated and coordinated approach to their development planning so as to ensure that development is compatible with the need to protect and improve environment for the benefit of their population”.

Principle 15 :“Planning must be applied to human settlements and urbanisation with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all...”.

Principle 17 :“Appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of states with a view to enhancing environmental quality”.

Following the Stockholm Conference and adoption of principles, almost all the countries of the world framed environmental protection and management Acts and Rules in conformity with the national and international requirements. A cursory glance into such Acts and Rules framed in India and provisions made within their framework would provide almost a global picture (Chaturvedi)⁸.

The Constitution of India initially did not have any direct provision for environmental protection. Following the Stockholm conference and ever-growing awareness of the environmental crises within and outside India, the Constitution was amended in order to insert direct provisions for protection of environment. (42nd amendment). Direct provision, accordingly, was inserted first in the part dealing with the Directive Principles, as Article 48-A, which reads, “The State shall endeavour to protect and improve the environment and to safeguard the forest and wild life of the country”, and second in the Fundamental Duties of the Citizens, earmarked in Article 51-A, placed in part 4A of the Constitution, in which clause (g) provides,; “It shall be the duty of every citizen of India to protect and improve the natural environment including forest, lakes, rivers, and wild life and to have compassion for living creatures”.

It is tempting to quote some of the provisions of various Indian environmental Acts, if only for their amazing similarity with forms and contents of *Arthaśāstra*.

A. A few provisions in the Water (Prevention and Control of pollution) Act 1974:

(a) No person shall knowingly cause or permit any poisonous, noxious or polluting matters determined in accordance with such standards as may be laid down by the State Board to enter (directly or indirectly) into any (stream or well or sewer or land).

(b) No person shall knowingly cause or permit to enter into any stream any other matter which may tend, either directly or in combination with similar matters, to impede the proper flow of the water of the stream in a manner leading or likely to lead to a substantial aggravation of pollution due to other causes or of its consequences”. (comparable *sūtras* in *Arthaśāstra* are 2.36.26-30, 2.36.43).

B. *The Forest (Conservation) Act, 1980:*

The object of the Act is to “provide for the conservation of forests” and Section 2 is the vehicle for the object. The Act has been passed with a view to checking deforestation. Deforestation causes ecological imbalance and leads to environmental deterioration. With this object in view, the Section has made it obligatory upon the State Governments to obtain prior permission of the Central Government for (a) dereservation of forest, and (b) use of forest land for non-forest purposes. (comparable *sūtras* in *Arthaśāstra* are 2.2.3-7, 2.1.39).

C. *The Wild Life (Protection) Act, 1972:*

The Act directs that “No person shall destroy, exploit or remove any wild life from a sanctuary or destroy or damage the habitat of any wild animal or deprive any wild animal of its habitat within such sanctuary except under and in accordance with permit granted by the Chief Wild Life Warden and no such permit shall be granted unless the State Government being satisfied that such destruction, exploitation or removal of wild life from the sanctuary is necessary for the improvement and better management of wild life therein, authorises the issue of such permit”. Such permits are issued in places where (i) any wild animal has become dangerous to human life or property (including standing crops), (ii) where an animal is so disabled or diseased as to be beyond recovery.

The Act provides for appointment by the Central Government of different officials like Director of Wild Life Preservation, Assistant Directors and such other officers and employees as may be necessary. Similarly the State Governments can appoint Chief Wild Life Warden, Wild Life Wardens etc. (comparable *sūtras* in *Arthaśāstra* are 2.26.1-6, 2.26.14, 2.17.1, 2.31.1).

The Act also prohibits picking, uprooting, damaging, destroying, acquiring or collecting specified plants from any forest land or any area specified by notification, or possessing, selling, offering to sell or transferring by way of gift or otherwise, or transport any plant, whether alive or dead or part or derivative thereof, except of grant for special purposes. (comparable *sūtras* in *Arthaśāstra* are 2.1.39, 2.2.5, 2.6.5, 3.19.28-30).

EPILOGUE

The perceptions about the world around man, and on the human attitudes towards nature, as emerge from the *sūtras* in *Arthaśāstra*, are certainly contrary to the concept of ‘anthropocentric dualism of being and having, namely, to be human and to have everything else at our disposal’. (Klaus Michael Meyer Abich)¹⁰. This concept explains

the present state of degradation of environment, consequent upon the uneven economic development of several centuries, and callous human attitudes. The concept of 'co-natural world' which takes into account man's relations to surrounding as integral part and not differentiated separate entities, is implicit in a number of sūtras of *Arthaśāstra*.

There had certainly been a breakthrough in the conceptual framework as evident in *Arthaśāstra*-towards a new paradigm of mundanity, an outcome of assimilation and amalgamation of earlier concepts with emerging ones, and being much different from ritualistic stringencies. This embryonic philosophy is observed in full bloom in the present day concept and concern constantly being proffered against man's profligate attitudes towards nature and environment. Nothing else, perhaps, is required to look for in order to gauge the relevance of *Arthaśāstra* even to-day, more than two thousand years after it was compiled.

Note: Numerals within parenthesis throughout the paper indicate Book, chapter and sūtra numbers respectively, arranged in *The Kauṭilya Arthaśāstra* by R.P. Kangle, Motilal Banarsidas, 1986.

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