

Environmental Laws of Manu: A Concise Review

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ABSTRACT It is evident from the depictions of *Manusmruti* that Vedic age Indians were much more conscious of the environment. They had formulated Environmental Laws to overcome problems of pollution and contamination and as well for the conservation of the biodiversity. The environmental laws of the then time were more of ethical significance and didactic, used to pursue subjects not to commit any offence of spoilage (wrong doing) of the ecology. There is another category of the laws which provides an option to a committer to undertake penance for a default. The aim of the penance was to make some one conscious of his misdeeds thereby preventing him to repeat the mistake with an internal theme of self realisation. However, the king was also empowered to punish offenders, acting against the environmental principles. The environmental laws of Manu, formulated during more than 5000 BC, is of beyond imagination comparing with that of the modern era, the later came to perception only during the recent century i.e. the 2000 A.D. The most important feature to be focussed here is that the then environment was free from pollution and contamination with much less population, free from unwanted cruelty towards biodiversity. The formulation of the environmental ethics so minutely based on observations being watched during that time, it was indicating; rather highlighting on the strong foresight of the Vedic people. Most probably, they had formulated the laws and environmental ethics not only for themselves; but with a futuristic i.e. all time consideration and hence of value even under the present environmental scenario.

INTRODUCTION

The fact that religion plays diversified role in saving the integrity of the natural environment, as realised very much by the western environmentalists (Goldsmith, 2000) was a well established concept in the eastern world since more than 5000 BC, as reflected in the dicta of *Manusmruti*. The latter is the world's first ethical compendium on human jurisprudence (Buhler, 1886) presented by *Maharshi* Manu. *Manusmruti*, originated sometime immediate to the post Vedic age, is well reflected in the epics like *Raamaayana* and *Mahaabhaarata*, spread throughout the Asian countries, even if sporadically situated, are said to be hailed from a common land of culture scribed as *Jambu Dweepa*, as comprehended form ancient historic evidences (Kumar, 1999).

In the past two decades, environmental problems have attracted the attention of a wide cross section of the people all over the world. People are becoming more and more conscious of a variety of environmental problems, such as global warming, depletion of ozone layer, acid rain, famines, draughts, flood, scarcity of fuel and firewood, non-availability of fodder, pollution of air, water and soil, environmental

reaction of chemicals, radiation including noise as pollutant factors and above all the impact of Tsunami devastation. No nation in the world has ever spared to think about these global problems and efforts are being made to touch every citizen with the idea of environmental consciousness.

It was in the year 1972, in an U.N. conference on human environment held at Stockholm, decisions were made to take appropriate steps for the protection and improvement of human environment. It was felt necessary to implement the decision for the protection and improvement of the environment and prevention of hazards facilitating the habitat for human beings and other living creatures including plants and the properties as well. In the year 1992 a watershed global agenda was prepared during the earth summit at Rio-de-Janeiro, the capital city of Brazil between 3rd to 14th June to ensure relationship between environment and its development in the level of a global partnership. This historic assembly was participated by 170 countries including 115 heads of states and governments. There was exchange of view and ideas, sign of declarations and convention to raise environmental awareness concerned to the common man throughout this world. Rio summit was followed by a series of U.N. Conferences to settle up working plan and projects world over. 'The Environmental Protection Act' was

introduced in 1986 in the 37th year of Republic India. Of course, there were acts outstanding concerned to environment such as: Air Pollution Act, 1981; Water Pollution Act, 1974; Wild Life Protection Act, 1972 and its amendment in 1991 etc..

In the last decade the authors have explored *Manusmriti* from ethnobiological point of view (Padhy, 1998, 1999, 2000, 2001; Padhy and Dash 2000; Padhy *et al.*, 1997, 1997a, 1998, 1999, 2001; Dash and Padhy, 1997, 1997a, 1998a, b, c, d, e, 2001a, b, c, d, e. The whole work has entailed to award Doctor of Philosophy to the associated authors (Dash, 1998; Mohapatra, 2003). It is realised by the authors that the ancient Indians were more conscious about the environment out and out and the facts are discussed in different contexts in the above cited papers. It is felt necessary to conglomerate the environmental ethics of Manu to reveal the importance of ancient Indian ecological perspectives. In fact, many of the facts reflected in this paper are conceptually followed by the Indians in their every day life and are enough to prove that religion plays an important role for the protection of the environment. Moreover, *Manusmriti* is known as *Maanava Dharma Ssastra*, a literary meaning of which is "Human Religious Compendium". It must be admitted here that religion does not reflect the procedure of worship and belief; rather, it has an inner meaning as the basis of principle which acts as the foundation for every phenomenon.

The environment in ancient days was certainly free from the polluting factors, which we experience today. No doubt, pollution might have occurred in those days; but the amount of awareness as reflected in *Manusmriti*, are of very high standard, merits a higher distinction of Vedic age people towards the environmental consciousness. Probably, no other jurisprudence in the world over, have expressed so much consciousness towards environment as that of Vedic Indians. Moreover, most of the environmental ethics of Manu, are advice oriented, educative and preventive; rather than the prescription of punishment and steps taken for cleaning after it being defiled as followed in the modern treatise. *The highest environmental ethics of Manu is to go for penance after some one commits an environmental sin; a high order of self punishment which entails self realisation. Most probably, this ethics is applicable throughout the human race if we want to save the global*

environment.

The Smruti says: (All) Sages prescribe a penance for a sin unintentionally committed; some declare on the evidence of the revealed texts, (that it may be performed) even for an intentional (offence). (*Manusmriti: Adhdhaaya XI / Ssloka 45*) (Bühler, 1886).

ENVIRONMENTAL LAWS OF MANU

PART-I

TITLE, EXTENT AND COMMENCEMENT

- These laws may be called as environmental ethical laws of Manu; part of the ethical laws formulated by the sage ecologist Manu in his compendium *Manusmriti*, comprises of 12 Chapters, includes 2684 verses.
- These ethical laws are neither depicted nor concentrated nor declared in *Manusmurit* as environmental laws, rather focused in different chapters pertained to different environmental aspects; compiled here to give a meaningful structure.
- The aim of such compilation is to open the eyes of the scientific world, that Indian ancient science was much enriched in the Vedic age and was conscious enough of the environmental aspects.
- Many of these laws, are at par with the modern environmental aspects; were followed in the earlier society and many are even still followed in the present day social ethics.
- Since *Manusmriti* is regarded as the first ethical law book of human beings (*Maanav Dharma Ssastra*), above any religion; it extends its applicability to the whole humanity, with out being effected by space and time.
- These ethical laws have come into force since the post Vedic period and no definite date can be fixed for its origin. The other law givers of India (*Smruti* writers - 20 major and about 50 minor) have followed the foot prints of Manu.
- These laws are ethical, mostly educative and to be implicated from biological, social, psychological and philosophical point of view enriching the environment to be considered in toto.
- These laws originate in three forms such as:

- i) Ethical dictum: Presented in the form of advice entailing not to commit an environmental sin and also includes code of conduct.
 - ii) Offensive dictum: Anti-environmental activities, being declared as punishable; punishment is prescribed.
 - iii) Self restriction dictum: A committer of environmental sin is asked to under go penance. The aim of such dictum is for prevention of committing a mistake or not to repeat the activity subsequently to create self consciousness, self humiliation on account of coupled with a guilty feeling act lesson to the society.
- Pollution refers to spoilage of the five gross elements by unethical activity (IV/48).
 - Ecological responsibility refers to one's expression of obligation and moral duty for his source of knowledge (*Rrushi Yajnya*), for his ancestors from whom he has received the corporeal body and genetic setup (*Pitru Yajnya*) to the environmental factors (*Deva Yajnya*), to the biodiversity (*Bhoota Yajnya*) and human beings of the society, a source of cooperation (*Nrru Yajnya*) (IV/21).
 - Contamination refers to any action against wholesomeness (*Ssoucha*) (V/137,146).
 - Cleanliness is to be considered from physical, mental, physiological and metaphysical point of view (V/105).
 - Food is to be considered as the chief source of contamination; disrespectful food, with possibility of impure contamination or from a source out of ill earning, is to be avoided.
 - The knowledge, austerities, fire, holy food, earth, control of internal organs, water, smearing with cow dung, the wind, sacred rites, the sun and the time are the different cleaning agents, applicable as per situation against mental, physical, physiological and metaphysical impurity (V/105).
 - The following exudates excreted from human body are to be recognised as impure substance.
 - (1) Oily exudes, (2) Semen, (3) Blood, (4) Bone marrow, (5) Urine (6) Faeces, (7) Nasal mucus secretions, (8) Ear wax, (9) Phlegm, (10) Tear, (11) The rheum of the eyes, (12) Sweat (V/135).
 - Conservation of animals refers to non-killing of animals either wild or domesticated for the purpose of food or sympathy or from ethical point of view.
 - Special attention should be given for domesticated animals to make them free from torment (IV/67).
 - Plants are declared as conscious. Conservation of plants refers to non-spoilage of any plant, plant part or plant product for no good purpose (I/49; XI/64, 65, 143, 145, 146).
 - Non-violence in feeling and action, kindness for biodiversity and rendering of ethical protection for them, vegetarian food habit, fear for rebound action due to violence, social discouragement and degradation, administrative responsibility against

PART-II

DEFINITIONS

- Physical environment means, the ecological factors such as Ether (*Aakaassa*), Air (*Vaayu*), Fire (*Tejas*), Water (*Aapa*) and Earth (*Kshiti*) in a nutshell known as *Pancha Mahaabhoota* (Five gross elements) (I/20, 75-78).
- Biodiversity means all living forms broadly ascribed as *Chara* (movable animal world) and *Achara* (immovable - Plant Kingdom) (I/41; V/29).
- Animal world means all living creatures broadly divided on the basis of birth (*Janmani*) into (1) *Yaraayuja* (born from womb – herbivore, carnivore and human beings), (2) *Andaja* (born from egg – Pisces, Reptiles and Aves) and (3) *Swedaja* (born out of hot moisture and filthy substrate – includes all other non-chordates grow under eutrophication) (I/42-45).
- Plant Kingdom includes all *Vanaspati* (*Cryptogams*) and *Vruksha* (*Phanerogams*) with groups such as medicinal, annuals, herbs, shrubs, grasses, creepers and lines (I/46-48).
- Ecological niche means - names (systematic position) actions (role in the environment) and living conditions (habitat) of all created beings (I/21).
- Conducive environment for human habitation refers to the bio-geographical, political, cultural and social factors of a dwelling environment (II/17-24; IV/60, 61).

spoilage of biodiversity and protection, performance of penance for spoilage of biota either knowingly or unknowingly, different cultural and ritual activity and social and ethical laws are the different restrictions to be implemented for protection of biodiversity.

PART-III

DICTA FOR PREVENTION OF POLLUTION

AIR POLLUTION

- Impure substance are not to be thrown to fire - (smoke raised there of, may act poisonous) (IV/53).
- Smoke, raised from a burning corpse, is to be avoided (IV/69).
- Fire is not to be placed in bed room (to avoid CO₂ and CO pollution) (IV/54).
- Fire should not be blown with mouth (fly ash and smoke raised may enter to respiratory track) (IV/53).
- Sleeping in a deserted dwelling or under the tree during night time should be avoided (Choked / confined air is poisonous and plants release only CO₂ during night time; also may be due to unpredicted biological activity) (IV/57,73).

WATER POLLUTION

- Filthy substances like urine, faeces, saliva, cloths defiled by impure substances, blood, poisonous things and any other substance considered to be impure, should not be thrown to water body (IV/56).
- He, who has committed any blameable act in water (as above), shall subsist during a month on food obtained by begging and shall mutter the seven verses addressed to gods like Indra *et al.* (XI/256).
- In emergency (Knowingly or unknowingly) if some one gets relieved of the necessities of nature, being greatly pressed, in water; should go for a minor penance i.e. touching a cow after bath (XI/203).
- Water of rivers, ponds, lakes, springs or water bodies, developed naturally are most preferable for bathing. One should not use the tanks belonging to other (IV/201,203).

- Normally water gets purified of its own by the current of its flow; but possessing of proper smell, colour, taste and un-mixed with impure substances, collected from clean (oligotrophic) grounds are considered to be pure water (V/108,128).

DISPOSAL OF WASTE

- Garbage like hair, ashes, bones, potsherds, cotton seeds and chaff are not to be dumped in public places; one should avoid to step on over such (IV/78).
- Urination on a public road, on ashes, in a cow pan, ploughed land, in water facing to fire, in a ruined temple, in ant hill or in holes inhabited by living creatures or on a hill top should be avoided (IV/45-48).
- Waste products like urine, ordure, water used for washing the feet, water from the bath and remnants of food should be made transferred far away from the dwelling (IV/151).
- He, who drops filth on the King's high-road should be fined and asked to clean immediately. Under conditions of urgent necessity this punishment is relaxed for an aged man, pregnant women or a child (IX 282, 283).

DICTA AGAINST CONTAMINATION

ETHICS IN GENERAL

- Dwelling in a place where diseases are endemic should be avoided (IV/60).
- Personal belongings of some one such as shoes, garments, sacred ring, ornaments, garland or water vessel should not be used by others (IV/66).
- Things used for cleaning the body, water used for a bath, urine, ordure, blood, mucous or anything spat out or vomited should be carefully avoided to step on (IV/132).
- Carry of used shoes by hands is to be avoided (IV/74).
- Wife should not be approached during menstrual period (IV/40).
- Sex with any female other than wife should be avoided (IV/134).
- Tearing of nails with teeth should not be done (IV/69).
- Going to bed with wet feet is not advisable

- (as it may cause to catch cold) (IV/76).
- One should not bathe immediately after a meal, nor when he is sick, nor in the middle of the night, nor dressed in all his garments, nor in an unknown pool (IV/129).
- Moreover, to take care of eye sight one should not read upto late night, while lying on a bed, while his feet are raised on a bench, nor during a fog, nor during the twilights, during roaring windy nights, during whirling dust in day time, during lightning, thunder or fiery meteors fall or of an earthquake or sitting on a moving carriage, boat or animal (IV/99, 105, 112,113,115,120).

ETHICS OF DINING ENVIRONMENT

Ancient Indians have realised that the wrong ingestion process along with the improper food, used to contaminate the body from physical, physiological and metaphysical point of view. Much emphasis has been given to regulate some one in food, eating habit and the source of food.

- One should avoid eating in the morning nor very late in the evening, nor during the twilight (IV/62).
- One should avoid a broken disc or a defiled one (IV/65).
- One should not eat dressed with one garment (*aeka bastrena*) only or covering his head being (heavily) dressed (IV/45; III\238).
- Food taken in wet feet ensures long life (IV\76).
- Eating should be avoided lying on a bed or holding the plates in hand or on a seat (dinning table) (IV/74).
- Eating facing to east begets long life, to south gets fame, for prosperity turning to west and for through fullness facing to the north (II/52).
- Food should be worshiped always, eaten without contempt, rejoiced when it is seen with pleased face and should be prayed (before eating) that, may it always be available to him (II/54).
- Worshipping the food gives strength and mental vigour (II/55).
- One should sip water before and after eating (with chanting of health supporting verses) (II/58-59).
- One should wipe twice his mouth after

- eating and lastly touch the cavities of the face: eyes, ears and nose with water (II/60).
- The dinning place should be a sacred one where a village pig, a cock, a dog, a menstruating women or a eunuch should not look (enter) (III/239).
- The person who serves the food should not on any account drop a tear, nor become angry, nor utter an untruth, nor touch the food with his feet, nor violently serve the food (as if throwing a mark of disrespect) (III/229).
- One should take the food silently and as long as it is warm (III/237).
- One should be aware of eating between the two meal times, nor over eat himself (II\56).
- If one had a heavy lunch, he should avoid evening meal (IV/62).
- Excess eating is prejudicial to health fame and prevents acquisition of spiritual merit (II/57).

QUALITY OF FOOD

- Food offered by an open invitation to all concerned; or declared to be bad by a learned person; or what has been touched intentionally with the foot; or offered without due respect should not be accepted (as it causes moral depletion) (IV/207, 209, 213).
- Food in which (1) hair or insets are found; (2) which has been touched by menstruating women; (3) picked up by birds; (4) touched by dog; (5) smelt by cow; (6) which has turned sour; (7) which has been kept over night; (8) edible remnants of another man; (9) sneezed over by anybody and (10) which is unpalatable should be avoided due to possibility of contamination (IV/207, 208, 209,211,213).

SOURCE OF FOOD

Manusmruti has discouraged to accept food from a wide spectrum of persons. In a deep analysis these specified persons noted below are either mentally unstable or physically unfit or socially guilty or denounced or have an earning source which is not free from ill deeds. In such circumstance food offered by such people is considered as a source of metaphysical contamination; and the acceptor may have to suffer from the activities

of the giver. These specified persons are as follows;

Let some one not eat the food given by (1) intoxicated; (2) angry; (3) diseased; (4) harlot; (5) thief; (6) musician; (7) carpenter; (8) usurer; (9) one who is initiated for the performance of a sacrifice; (10) miser; (11) one bound with fetters (prisoner); (12) accused of moral sin; (13) hermaphrodite; (14) unchaste women; (15) hypocrite; (16) physician; (17) hunter; (18) cruel man; (19) who eats the fragments of another's meal; (20) an *Ugra* (a type of *Varnassankar*); (21) prepared by postnatal women; (22) person whose ten days of impurity have not elapsed after death or birth of a kinship; (23) a destitute female; (24) an enemy; (25) headman of the village; (26) an outcast; (27) an informer; (28) who habitually tells false hood; (29) a blacksmith; (30) a goldsmith; (31) bamboo basket maker; (32) a dealer in weapons; (33) a *Nishaada* (a type of mixed caste *Varnassankara*); (34) a stage player; (35) a trainer of hunting dogs; (36) publicans (*Soundhika*); (37) a washer man; (38) a dyer; (39) a pity less man; (40) a man in whose house a paramour of his wife leaves; (41) a man who bears the paramours of his wives and (42) in female dominant families. Also (43) one should stop eating in a congregation if prematurely one guest finishes his meal and rises up and (44) should not take part in a dinner at a sacrifice that is offered by one who is not entitled to do so (IV/205 to 217).

FORBIDDEN FOOD

Analysis of the morpho-physiological and behavioural characteristics of man supports him more as a vegetarian due to absence of fangs, comparatively long intestine, drinking habit unlike the carnivores and many more physiological specialities. Along with non-vegetarian food many vegetables are declared as forbidden food and their ingestion is not free from harmful reactions, such as:

- Garlic, leeks and onions, mushrooms and all other plants springing from impure substances, red exudations from trees and juices flowing from incisions and the Selu fruit; are the vegetables and vegetable products should be carefully avoided as food (V/5,6).
- Considering the disgusting origin of flesh and the cruelty of fettering and slaying of corporeal beings, one should entirely

abstain from eating flesh (V/49).

- He, who does not eat meat like a *Pissaacha*, becomes dear to men and will not be tormented by diseases (V/50).
- Milk of a cow within ten days after her calving, or of a cow in heat or of one that has no calf with her, should be avoided as food (V/8).
- Milk of camel, sheep or of one-hoofed animals, or of all wild animals excepting buffalo-cows and that of women, or (milk) food turned sour, must be avoided as food (V/8,9).
- Through faults committed by eating forbidden food, death becomes eager to shorten the life of a person (V/4).
- One must go for penance on consumption of forbidden food either knowingly or unknowingly (XI/145).

CLEANLINESS / PURITY

- As the prime factor; he who is pure in fiscal affairs is the most cleaned personality (V/106).
- A man of wisdom and the soul gets purified by performing austerities (V/107-109)
- Knowledge cleans the intellect; a learned man gets cleaned by a forgiving disposition and elite (*Braahamana*) by abandoning the world (V/107-109).
- A secret sinner can purify himself by muttering *Mantras* (*Japa*) the forbidden action committed is purified through liberality (*Daana*) and bad thoughts of a woman gets cleaned (automatically) by menstrual secretion (V/107).
- As a general principle, truthfulness cleans every mental impurity (V/109).
- After voiding urine or faeces application of earth on the organ, anus and hand cleans the system (V/134,136).
- Body should be cleaned daily by bathing and as well after sexual intercourse (V/109).
- Bathing followed by eating clarified butter is essential to be pure after vomiting, but reiterated vomiting (due to illness) should be followed by sipping water (V/144).
- Sipping of water after sleeping, sneezing, spitting and drinking and before commencement of reading is to be followed for a feeling of wholesomeness; and this is also

- applicable for telling (unwanted) lie (V/145).
- Land is purified by five modes: sweeping, by smearing it with cow dung, by sprinkling cow dung mixed water, by scraping and by cows staying on it during a day and night (V/124).
 - Utensils: made of metals, gems and stones are cleaned with ashes and earth with water; of gold, stone, coral, silver by water alone; of copper, iron, brass, pewter, tin and lead by alkaline and acid substances; all sacrificial vessels by rubbing in hand and rinsing with water; wooden spoons, baskets, cart, mortar and pestle by hot water; pots made of conch shell, horns, bones and ivory by mixture of cow urine and water and earthen pot are purified by burning it for second time (V/111,112,114,116,122).
 - Earthen vessels defiled by spirituous liquor, urine, ordure, saliva, pus or blood can not be purified by incineration (V/123).
 - Large quantities of grains, vegetables, roots and fruits are cleaned by sprinkling water, and oil and ghee by passing two blades of *Kussa* (*Desmostachia bipinnata*) grass through them (V/118,119).
 - Cloths of small quantity are to be cleaned by washing; large quantities (unused) are to be purified by sprinkling water, silk cloth are purified by alkaline soil, blankets by fruits of *Sapindus trifoliatius* (*Ithaa Phala*), staple cloths with *Aegle marmelos* (*Bel*) and lines cloths are to be cleaned by paste of white mustered seeds (V/118, 120).
 - Wooden objects are to be cleaned by scraping, wooden stuff by alkaline soil and all other materials, including grass and wood can be felt wholesome by sprinkling water (V/115,117,122).
 - As general rule anything inanimate is to be cleaned by applying earth and water as long as the foul smell does not leave an object defiled by impure substance and till the stain caused does not disappear (V/126).
 - A person is declared impure metaphysically on account of death of a kin or birth of a child in the family or abortion of a pregnancy (of wife) and due to guilt incurred having sex with a female other than wife (V/61,66).
 - A female during menstruation period is physically and metaphysically impure (V/66).
 - During metaphysical impurity one can not perform daily rituals and worships and one automatically gets purified after the lapse of a specific time (V/83,84).
 - Metaphysical impurity incurred due to hearing the death news of a kin after a long period staying at long distance or due to touching a menstruating woman, the watcher of the grave yard, (*Chandaala* - an outcaste), a woman in child bed, a corpse or one who has touched a corpse and a human bone gets purified through a bathing (V/85).
 - The taint of metaphysical impurity does not effect a Kins, a person engaged in the performance of a vow, and on some one who has taken oath to perform a sacrifice (V/93).
 - Rules of metaphysical impurity is not applicable to the kine man of a person who died in a riot or battle, due to thunder bolt, had death punishment by the King on a guilt and one who sacrifice himself for the cause of others (V/95).
 - The following are declared to be pure under any circumstance:
The *Indriyas* (sense organs) of the body above the navel centre, the mouth of a woman, fruits dropped from the beak of a bird, the milk of a cow after suckled by the calf, the flesh of a deer or like caught by a hunting dog and as well flesh of an animal killed by carnivorous animals or pariahs; the touch by flies, drops of water, a shadow, a cow, a horse, the rays of the sun, dust, earth, wind, fire and as well drops of water from the mouth, nor the hair of the moustache entering the mouth, nor water adheres to the teeth, nor drops of trickle which falls on the feet of one who offers for sipping to others, the hand of an artisan, the commodity exposed for sale in a market and food obtained begging by a student must not be considered as impure (V/129-133, 141,142).

ETHICS AGAINST ADULTERATION

COMMODITIES

- He who adulterates unadulterated commodities should be punished (IX/286).
- He who sells (for) seed corn that which is

not seed corn (fails to sprout out) shall be punished by mutilation (IX/291).

MEDICAL TREATMENT

- Unqualified physicians (quacks) who are not aware of medical science or who treat their patients wrongly either in case of animals or human beings should be fined (IX/284).

SEX

- A man who commits adultery with the wives of others, who visciate an unwilling maiden, who through insolence forcibly contaminates a maiden; a man of lower cast keeps sexual relation with a woman of higher caste and vice-versa should suffer the punishment for adulterous acts (VIII/352-355, 364, 366, 367, 368).
- A person who addresses the wife of another person at a pilgrim spot, outside village, in a forest or at the confluence of rivers or secretly converses with her; who offers presents to other women, touches her dress and ornaments, sits with her on a bed; who touches a woman in a place which ought not be touched; all these are considered (sex) adulterous and punishable acts (VIII/354, 356, 357, 358).
- Secret converses with female slaves of some other master or with female ascetics are to be considered as sex adulterous act and punishable (VIII/363).
- A maiden, who makes unwanted adverse for quenching of desire towards other man, should be forced to live confined in her house as punishment (VIII/365).
- A wife, being proud of the greatness of her relatives, violates the duty towards her husband and keeps adulterated relation with other man should be punished being devoured by dogs in a public place; and the paramour is to be burnt on a red-hot iron bed (VIII/371).
- A damsel or a woman who pollutes another damsel should be punished (on the ground of lesbianism) (VIII/369, 370).
- He who commits sex offence with his sister; with wives of a friend or his son; with unmarried maidens and females of the lowest castes; with the daughter of his

father's sister, mothers sister or maternal uncle's, with an animal; with a menstruating women; un-natural offence with a male (homosex); intercourse in a cart drawn by oxen, in water, in the day time or un-natural offence other than sex organ should undergo penance (as he commits this sin in secrecy) (XI/171,172,174,175).

- Since women are able to lead astray to not only a fool, but even a learned man by turning him slave of desire and anger, one should be cautious (II/213,214).
- One should (even) avoid to sit with his own mother, sister or daughter in a lonely place; since the senses (*Indriya*) are powerful and can master a learned man (II/215).

PART-IV

DICTA FOR CONSERVATION OF BIODIVERSITY

- I) General Ethics Against Non-Violence.
 - A twice born man (*Dwija*) of virtuous disposition, wherever he dwells, even in the time of distress shall not cause injury to any creature (V/43).
 - An elite should not seek a means of subsistence which causes even little pain to other creatures (IV/2).
 - He, who desires to obtain endless bliss and good for all, should not be a cause to the sufferings of bonds and death to living creatures (V/46).
 - He, who wishes to attain what he fixes in his mind, should not injure any creature (V/47).
 - In order to preserve living creatures, either day or night, even with pain to body, one should walk carefully scanning the ground (VI/68).
 - Abstention from injuring creatures (*Ahimsaa*) is to be considered as the foremost among the social verdicts (declared by Manu) (X/63).
 - He, who kills the animals without a (lawful) reason is certainly expected to suffer violent death (many times) in his future births (V/38).
 - He, who injures innoxious beings with a wish to give pleasure to himself, will never find happiness, neither during his life time nor after death (V/45).

- II) Ethics Against Killing of Animals for Food Purpose
- Eating meat, is disease prone (V/50)
 - Meat can never be obtained without injury to creatures and injury to sentient beings, is detrimental to the attainment of heavenly wish. With this philosophy let every one shuns eating meat (V/48).
 - Considering the disgusting origin of flesh and cruelty of fettering and slaying corporeal beings, let everyone abstain from eating flesh (V/49).
 - He is a sinner who seeks to increase the bulk of his own flesh by eating the flesh of other beings (V/52).
 - The word flesh is known as *Maamsah*; on non-conjoining, the analysis is, *Maam + Sah*, which means 'He to me'. It is a wise declaration that, whose flesh some one eats in this life, the eater will devour him in the next life (V/55).
 - (So) abstention in eating meat brings great rewards (V/56).
 - Fishes, of all types, (*Sarbasah Matsyaan*) should not be killed for food purpose (V/14).
 - The following animal subgroups should be protected against killing (V/11,13,17,19).
 - i) One hoofed animals (*Aika famsah*)
 - ii) Fish eating animals (*Matsyaadaan*)
 - iii) Village pigs (*Bid Baraaha*)
 - iv) Solitary moving animals (*Aika Charaa*)
 - v) Unknown beasts (*Nagnyaataam*)
 - vi) All five toed animals (*Sarbaam Panchanakhaam*)
 - Birds of the following groups should not be killed for the purpose of eating (V/11,13,17).
 - i) Carnivorous birds (*Ssakuneen*)
 - ii) Birds of village habitat (*Graama Nibaasinih*)
 - iii) Feeding habit with striking beaks (*Pratudaan*)
 - iv) Web footed (*Jaala Paadaam*)
 - v) Move in groups (*Koyashti*)
 - vi) Scratching with toes (*Nakhabi-shkiiraan*)
 - vii) Diving birds feeding on fishes (*Nimajjatasscha Matsyadaan*)
 - viii) All unknown birds (*Najnyataam*)
- III) Penance for Killing of Animals
- One must go for penance if he kills the following animals (XI/69, 110, 116, 117, 132, 135-138).
 - Penance must be followed the sinful killing of snakes (*Ahi, Sarpam*), iguna (*Godhi*), frog / toad (*Mandukam*), small fishes (*Meena*), small animals those have bones (*Asthimattaam*), bone less animals (*Anasthaam*), insects small and large (*Kurmi, Keeta*) and destroying of any kind of creatures that breed in food, condiment, fruits and flowers (*Sattwaanaam* - life from substrates: Microbes) (XI, 69,71, 132, 140, 141, 142).

• The following birds are specified not to be killed (V/11,12,14).

English Name	Sanskrit Name (Manusmriti)	Scientific Name
Tittibha (Plover)	<i>Tittibha</i>	<i>Vanellus indicus</i>
Sparrow	<i>Kalabinkam</i>	<i>Paser domesticus</i>
Plava	<i>Plavam</i>	<i>Charadrius dubius, Burhinus oedicnemus</i>
Hamsa (Swan)	<i>Hamsam</i>	<i>Anser indicus</i>
Braahamani Duck	<i>Chakraangam</i>	<i>Anas poecilorhyncha</i>
Village Cock	<i>Graama Kukutam</i>	<i>Gallus gallus</i>
Saarasa Crane (Storks and Bills)	<i>Saarasam</i>	<i>Grus sp, Leptoptilas sp, Threskiornis melancocephala, Pseudibis papillosa, Platalea feucorodia</i>
Rajjudaala (Darter, little and large cormorants, Indian shag)	<i>Rajjudaalam</i>	<i>Anhinga rufa, Phalacrocorax sp.</i>
Wood packer	<i>Daatyuham</i>	<i>Picoides mahrattensis, Dinopium benghalense</i>
Parrot	<i>Sukam</i>	<i>Pisittacula Sp.</i>
Starling	<i>Saarikaa</i>	<i>Acridotheres tristis, Leucopsar sp.</i>
Balaakaa crane	<i>Balaakaa</i>	<i>Anastomus oscitans</i>
Crane (Hérons and Egrets)	<i>Baka</i>	<i>Ardea sp. Egretta sp. Bubulcus ibis, Ardeola grayii</i>
Cuckoo (Koel)	<i>Kaakolam</i>	<i>Eudynamys seolopacea</i>
Raven (crow)	<i>Kaakam</i>	<i>Corvus sp.</i>
Khanjana (Wagtail)	<i>Khanjaritakam</i>	<i>Motacilla sp.</i>
Peacock	<i>Barhinaam</i>	<i>Pavo existatus</i>

• One must go for penance if he kills the following biota (XI/132, 135, 136)

A. ANIMALS

English name	Sanskrit Name (Manu)	Scientific name
Donkey	Khara	<i>Equus hemionus</i>
Horse	Aswa	<i>Equus caballus</i>
Camel	Ushira	<i>Ceruus sp.</i>
Deer	Mruqa	<i>Ceruus sp., Axis sp., Muntiacus muntjak sp.</i>
Monkey	Baanara	<i>Macaca sp., Presbytis sp.</i>
Elephant	Ibhaanaam	<i>Elephs maximus</i>
Goat	Ajaa	<i>Capra hircus</i>
Sheep	Bikadhah	<i>Ovis aries</i>
Buffalow	Maheesha	<i>Bubalus bubalis</i>
Cow	Gow	<i>Bos sp.</i>
Cat	Maarjaara	<i>Felis domesticus</i>
Ichneumon (Mongoose)	Nukula	<i>Herpestes sp.</i>
Dog	Swaana	<i>Cuon sp.</i>
Wild pig	Baraaha	<i>Sus scrofa, Hylochoerus meineri-zhageni</i>
Wild beast (Carnivorous/ herbivorous)	Krabyaa/ Akrabyaa	Includes the whole animal diversity

B. BIRDS

English name	Sanskrit Name (Manu)	Scientific name
Blue jay	Chaasham	<i>Coracias benghalensis</i>
Owls	Ullukam	<i>Athene brama, Bubo sp.</i>
Crow	Kaakam	<i>Coruus sp.</i>
Swan	Hansam	<i>Anser indicus</i>
Duck	Balaakaa	<i>Anastomus oscitans</i>
Falcon	Swena	<i>Falco pergrinator</i>
Parrot	Sukam	<i>Pisittacula Sp.</i>
Heron	Krauncharn	<i>Ardea sp. Egretta sp. Bubulcus ibis, Ardeola grayii</i>
Peacock	Barhinam/ Mayura	<i>Pavo existatus</i>
Bhasa* (Vultures and Kites)	Bhaasam	<i>Gyps bengalensis, Neophron perc-noterus Haliastur indicus</i>

- Spoiling of an embryo should be followed by penance (*Garbham - agnyaatam*) (XI/88).

IV) Penance for Spoilage of Plant Diversity

- Injuring medicinal plants and cutting down green trees for firewood, cutting of fruit trees, shrubs, creepers, lianes, flowering plants, destroy of agricultural species for no good purpose and all plants that spontaneously spring up in forests should be followed by penance (XI/64, 65, 143,

145, 146).

V) Injury to Biodiversity, is Offensive

- The king is advised not to go for hunting, as King's conduct is expected to reflect upon the society (VII/47,50).
- In case of death of an animal for food purpose, the followings are to be considered as slayers viz. the perimeter for slaughtering, the killer, the seller, the buyer, the cook, the caterer and the consumer of meat (V/51).
- The meat eater is more guilty than the slayer of the animal (V/34).
- A careless driver of cart shall be inflicted with a fiscal punishment who causes the death or injury of any living being such as a man, cow, elephant, camel, horse, a small cattle, to beautiful wild quadrupeds and birds, donkey, sheep and goats, dog or pig (VII/296-298).
- If an animal is struck with a blow that causes it pain, the offender should be punished with a fine in proportion to the amount of pain caused (VIII/286).
- If a limb is injured, causing a wound with haemorrhage, the assailant shall be made to pay all the expenses of the sufferer's cure (VIII/287).
- According to the usefulness of the several kinds of trees a fine must be inflicted for injuring them (VIII/285).

VI) Sympathy for Animals

- One must gently place some food on the ground for dogs, crows and insects (III/92).
- One should not travel with untrained beasts of burden, nor with animals that are tormented by hunger or disease, or whose tails have been disfigured (IV/67).
- One should travel with beasts without urging them much with goad (IV/68).
- A cow should be protected from any sort of danger and any injury caused to cow should be followed with penance (XI/113, 115, 116, 117).
- One should not step over a rope to which a calf is tied (IV/38), to avoid any injury to the fickle calf apprehending a wrong webbing of the tied rope.
- A cow should not be interrupted while it is suckling (IV/59).
- Any damage caused by a cow within ten days of her calving should not be considered as a cattle mischief (VIII/242).

- There should be sufficient reserve space as pasture land around a village and thrice of that around a town for grazing (VIII/237).
- VII) Social Discouragement Against Animal Cruelty
- A meat eater is to be considered as a *Pissaacha* (a low grade human) (V/50).
 - A person who owns the profession of selling flesh is socially so much degraded, that non should accept *Daana* (gift) from him (IV/84).
 - Persons leading their livelihood at the cost of pain, directly or indirectly to animals are to be discouraged through their non-entry into festive rituals like *Ssraaddha*.

They are such as:

- a seller of meat (III/152),
- a trainer of oxen, elephant or camels (III/162),
- a bird fancier (III/162),
- a breeder of sporting dogs (III/164),
- a falconer (III/164)
- one who delights in injuring living creatures (III/164) and
- a shepherd or a keeper of buffalos (III/166).

VIII) Encouragement for Plantation

Plantation was encouraged as mark of boundaries with the following types of trees, and herbs (VIII/246,247).

1. *Ficus racemosa* Linn. (*Nyagrodha*); 2. *Ficus religiosa* Linn. (*Asvattha*); 3. *Butea monosperma* (Lamk.) Taub. (*Kimsukaa*); 4. *Bombax ceiba* Linn. (*Saalmaleen*); 5. *Shorea robusta* Gaernt. (*Saala*); 6. *Borassus flabellifer* Linn. (*Taala*); 7. *Prosopis cineraria* (Linn.) Druce (*Samee*); 8. Trees with milky juice (*Kshirinaaschaiba Paadapaan*) (The expected generic examples under the later group may be: i) *Calotropis*, ii) *Ficus*, iii) *Thevetia*, iv) *Euphorbia* and v) *Plumeria*. The xerophytic nature of these plants makes them withstand in unfavourable conditions and they are suitable species to conserve boundaries); 9. Clustering shrubs (*Gulmam*); 10. *Bambusa* spp; 11. Creepers (*Ballee*) and 12. Reeds, *Aristida setacea* Retz. (*Ssaraan-Kubjagulam*).

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