

Environment and Spiritualism: Integral Parts of Ancient Indian Literature on Agriculture¹

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Abstract

Current scenario, about two decades after the positive effects of “Green Revolution” plateaued, is very pathetic. The morale of farmers and agricultural scientists, administrators, planners, and policy makers is abysmally low. Major breakthroughs for increasing farm productivity to provide food to the increasing population have not occurred in the last two decades. Farmers are exploited by all other sections of the society. How do we change the current scenario?

I believe it is time to study our agricultural heritage and relearn old lessons to the extent possible. The respect for environmental resources and spirituality that are embedded in our ancient and medieval literature needs to be seriously studied and readopted through mass communications in order to remold our society to lift the morale of people, especially the agriculturists.

Many of the readers might have substantial knowledge of ancient literature of India. Even then, for my own satisfaction, I would like to briefly review the literature that has influenced not only the majority of the Indians but also those Indians who belong to other great religions or faiths. It should be kept in mind that even today more than 70% Indians practice farming, and this percentage was perhaps more than 99% in the ancient period. Thus the ancient Indian literature has influenced and continues to influence day-to-day life of farmers and others.

I shall briefly cover relevant aspects of environment and spiritualism as described in the main Vedic literature and then highlight the same aspects as found in the agricultural texts.

Environment and spiritualism in the main Vedic literature

Environment

There are a few definitions of what constitutes an environment. Three of these are given.

1. A shortened version of this paper was published in 2011 in “The Symbiosis of Nature and Human Beings: Toward a New, Safe, Regenerative Agriculture” by Yoko Civilization Research Institute, Tokyo, Japan.

- Environment can be defined as the natural surroundings of that organism, which directly or indirectly influences the growth and development of the organism.
- Environment is defined as the surroundings in which an organization operates including air, water, land and natural resources, flora, fauna, humans and their interrelations [ISO (International Organization for Standardization) definition].
- Environment is the sum total of all living and non-living factors that compose the surroundings of man.

Any or all definitions given above would be applicable to the contents of Vedas. A diagrammatic representation will further clarify the components of environment (Fig. 1) (Source: <http://www.scribd.com/doc/14180071/11-Components-of-Environment>).

Each component can be a ‘force’ when its balanced existence is challenged. The concerned “force” then has to “retaliate” to correct the imbalance.

Spiritualism

It is uncertain at which time the spiritualism (*Parmartha* in Sanskrit, which means highest or most sublime truth; knowledge about Brahma or the supreme spirit) can be said to have begun (Shouler and Susai, 2009). In pre-historic times, people were motivated to seek out unseen and unknown entities that controlled things. This is in confirmation with the spiritualist doctrine, which maintains that a spiritual order of beings – including souls – might be every bit as real as bodies that make up the material world. Hence, a spiritualist could attribute

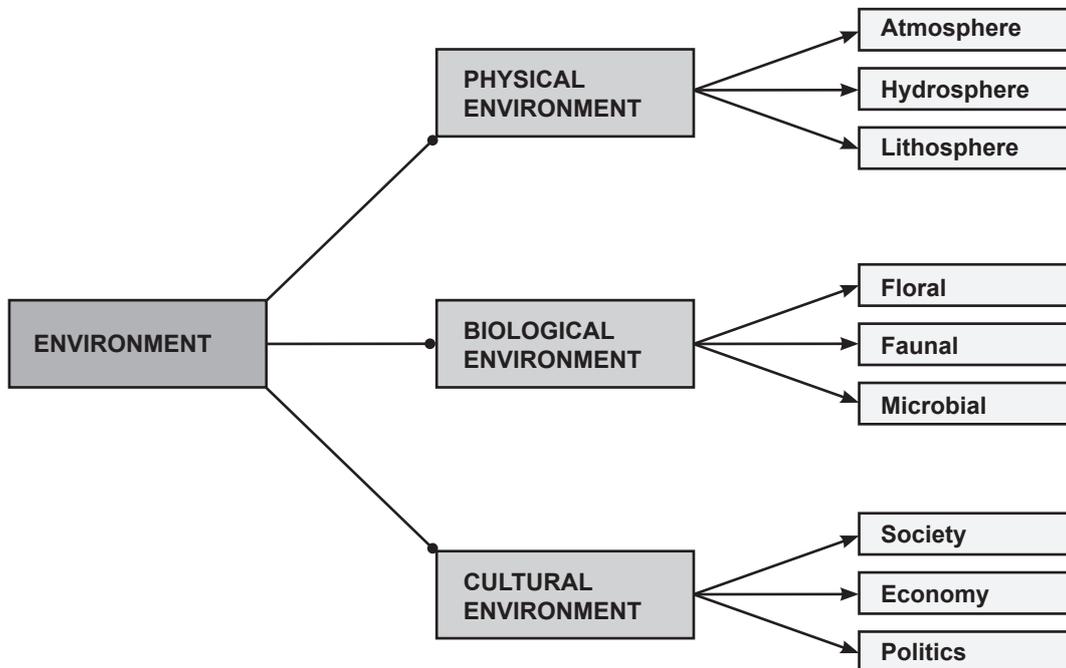


Figure 1. Components of environment.

sun or rain to a sun god or rain god, which he worshiped because the sun and the rain were essential to well-being. Other gods were instituted to suit the needs of the people, who had no direct control over events. If things went wrong, the people felt they had displeased the gods somehow. One way of dealing with that was to make offerings and sacrifices. Spiritualism is a philosophy characteristic of any system of thought that affirms the existence of immaterial reality imperceptible to the senses. Spiritualists believe in philosophy that each human is a soul clothed in a material body through which mental and spiritual faculties function, and that it is within this material body that the spiritual or etheric body resides.

For millennia the Vedic sages of ancient India wrote and shared their works with disciples, who in turn shared the knowledge with learned Brahmins and priests. And these learned ones shared the knowledge with common man. As pointed out earlier, about 99% of people were farmers.

The four Vedas

For millennia, the knowledge of Vedas was imparted orally to the successive generations. It is believed that the sage Veda Vyasa classified them almost 5000 to 6000 years ago (Max Müller: 2500–3500 years; others circa 3000–10000 years) and that they were written down on the banks of legendary Saraswati River in western India (now in Pakistan), which got dried up in the course of time. Veda Vyasa compiled the scattered knowledge of the ancient seers into four parts that came to be known as

the four Vedas. All the mantras (*ruchas* or verses) that are in the praise of deities were grouped together to constitute the Rigveda (10,552 verses). The mantras sung to the prescribed tunes melodiously formed the Samaveda (1875 verses). All those mantras that were both in verse and prose and dealt with the sacrifices were classified as Yajurveda (1975 verses). Finally, all the mantras that were essential and highly helpful in everyday life of humans became the Atharvaveda (5977 verses). Each Veda has four divisions or sections. The first section is *Samhita*, which is the oldest; it is the hymn section. The second section is *Brahmanas*, which deals with ritualistic teachings. The third one is the *Aranyakas* that covers theology, and the fourth one is the *Upanishads*, a philosophical section (Nair, 2008).

The Upanishads

The Upanishads are also known as *Vedanta* (*anta* = end) because they are the concluding portion or culmination of Vedas or knowledge itself, and also because chronologically Upanishads came at the end of the Vedic period (700–500 BC). In Upanishads, the importance of mantras, rituals, and Vedic sacrifices are relegated to the background, while the concept of Brahma (means the concept of the transcendent and immanent ultimate reality of the one, i.e., The Godhead or Supreme Cosmic Spirit) that is all pervading is brought to the limelight. The seers of ancient India advised us not to waste time in mere rituals, but seek refuge in Brahman through meditation and introspection. As Sri Aurobindo (a great nationalist, philosopher, and spiritualist

of India) has stated, “Upanishads are the records of the deepest spiritual experiences of the ancient seers. Upanishads are truth seen, felt, lived and held by the innermost mind and soul.” However, many of the ideas contained in the spiritual vision and philosophical arguments of the Upanishads are very difficult to understand and are still obscure to us. David Frawley, a well-known indologist once said, “The modern mind has yet to penetrate the veil protecting the ancient mysteries” (Nair, 2008).

Upanishads give the necessary spiritual vision through philosophical arguments, episodes, commentaries, stories, and metaphysical dialogues. They help uncover the process of creation, life, the essence of life, and the life beyond. Prince Dara Shikoh (mid-seventeenth century AD), son of Shah Jahan, the Mughal Emperor of India (1592–1666 AD), was a very learned scholar, who spent long hours in study and discussion with Hindu and Muslim saints and scholars, and collected many books, wrote several, and got a large number translated into Persian. He translated Bhagwad Gita into Persian, probably with the help of Hindu scholars. The most significant and the most controversial of his translations was *Sirr-i-Akbar* (The Great Secret), a Persian rendering of 52 Upanishads. Dara’s Persian translation of the Upanishads rendered in turn to Latin and published in Europe about 150 years later. These were read by the

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German philosopher Arthur Schopenhauer (1788–1860), who spoke of the book as “the solace of my life, the solace of my death” (Nene, 2000).

Rigveda is oldest of the Vedas. Its last hymn is a universal prayer for the welfare of the entire mankind. Its last hymn states, “May the whole of the mankind be of one mind, have a common goal, and the hearts with united love and the mind and soul be one and the same for all to live a life of happiness.” Vedas always related to all biotic and abiotic entities on the earth, and did not relate to any particular geographical region.

The Puranas

The *Itihasas* are the Vedic histories of the universe, known as Puranas, which are a large portion of Vedic literature. The *Itihasas* also include Vedic epics, such as the Ramayana and Mahabharata. The Bhagwad Gita, which means the song of Bhagwan (God), appears in the middle of the epic Mahabharata. Many consider the Bhagwad Gita as the most important of the Vedic scriptures, which most educated Indians read even today. It is the essence of the Upanishads and Vedic knowledge.

The Bhagwad Gita

The Bhagwad Gita consists of 18 chapters and over 700 verses. The Gita contains the advice given by Lord Krishna to Arjuna (a key person in Mahabharata) on all types of yoga, the means of self-realization. The Gita has an answer to every problem one may face in his/her life. It does not command anyone what to do; instead discusses pros and cons of every action and thought. That is the reason why the Gita is read by millions of truth seekers throughout the world.

The Vedas

I shall start with Rigveda (8000–1500 BC) and refer to other texts chronologically. Some agriculture related key messages that I have noted in Rigveda and in the three other Vedas are:

- Humans are a part of the complex universe.
- Intimacy of humans with nature is a matter of great joy.
- Existence of natural elements *Akasha* (Spirit/Essence), *Vayu* (Air), *Agni* (Fire), *Ap* (Water), and *Prithvi* (Earth) (in the same order) constitute the *Pancha Mahabhutas* (five great elements).

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There must be harmony between natural elements and humans as also harmony between the natural elements.

- Respect for animate and inanimate objects leading to conservation practices and judicious management. It is not uncommon to see even in modern India, a “welcome” and a small “farewell” celebration for car, house, farmers’ bullocks, often in front of statues of family deities. “Welcome” is more common than “farewell”. Every year on a particular day, children offer prayers to textbooks. This is how gratitude to useful objects is expressed.
- Guests (expected as well as unexpected) are to be treated with utmost respect. In return guests were expected to bless the hosts, a sort of recycling of intellectual and spiritual power (Vannucci, 1994). In olden days in many families, there was a tradition of keeping some cooked food

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aside for any unexpected guests turning up at odd time. The tradition continues today especially in villages.

- Reconciliation between conflicting ideologies of materialism and spiritualism. This is possible through the prescribed four aims of human life: *dharma* (righteousness), *artha* (worldly prosperity), *kama* (procreation), and *moksha* (final emancipation, deliverance of the soul from recurring births or transmigration).
- Recycling of matter, so important today for resource conservation. Even today quantities of “garbage” in India are less because of the instilled habit of recycling household materials.
- Cows were not to be killed but looked after well and affectionately. Cow slaughter is opposed by a majority of Indians today.
- Wanton destruction of trees was to be avoided. In fact it is common to see worship of certain trees on specific days in a year.

A verse in Rigveda says a lot, “Let our ploughs open the soil happily, let our

ploughman walk happily with the bullocks, and let clouds soak the land with water. Give us happiness” (Sharma, 1991).

Jaimini sutras

The name of Maharishi Jaimini of the Vedic times is held in high esteem and reverence among the Sanskrit writers of eminence, and probably he is held only next to Maharishi Veda Vyasa, who compiled the four Vedas. Jaimini was a disciple of Vyasa, and besides being a writer of various treatises and the epic Jaimini Bharata, he is the famous author of Poorva Mimamsa Sastra (*mimamsa* = investigations), and these able aphorisms in astrology called after his name as the Jaiminisutras (Source: <http://www.astrojyoti.com/jaiminisutraspage1.html>).

Jaimini in his *Updesa* (advice) *Sutras* describes the *shadripus* (*shad* = six; *ripu* = enemies) of human beings, of course including farmers. These are: *kama* – lust; *krodha* – anger; *lobha* – greed; *moha* – attachment; *mada* – vanity/conceit; and *matsarya* – jealousy. Kautilya has advised kings to make efforts to moderate the *shadripus* (Shamasastri, 1961).

If a person could, during his lifespan control these ‘enemies’ within him, he would move closer to the Supreme Being. We shall note these aspects, at least some of them appearing later in this paper.

I shall now move to the main focus of my paper; i.e., to describe and discuss the specific messages concerning environment and spiritualism embedded in ancient agricultural texts of India.

Mahabharata

The Mahabharata is not an agricultural text. However, Indian sages, in their instruction to the kings, insisted upon the protection of *Varta* (agriculture, animal husbandry, and trade), and especially the agriculture. Thus we find Bhishma (one of the most respected persons in the epic Mahabharata; he was grandfather of both Kauravas and Pandavas) advising Yudhishthira (eldest of Pandavas):

- “Agriculture, animal husbandry and trade are the very life of people.”
- “Have you ensured that the traders in the country, who have to pass through many difficult terrains in order to exchange goods at high and low prices, are never put to trouble under the burden of oppressive exactions?”
- “Have you ensured that the cultivators are not reduced to deserting the country because of the exactions imposed by you? It is indeed the cultivators who carry the burden of the King on their shoulders and also provide for the sustenance of all others.”

Dara’s Persian translation of the Upanishads rendered in turn to Latin and published in Europe about 150 years later. These were read by the German philosopher Arthur Schopenhauer (1788–1860), who spoke of the book as “the solace of my life, the solace of my death”.

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Sharing food with others has been lauded in the Vedic texts. In Mahabharata, Lord Krishna teaches Yudhishthira the greatness of *annadana* (*anna* = food; *dana* = sharing):

- “The world, both animate and inanimate, is sustained by food. Life arises by food; this is observed all around, and there can be no doubt about it.”
- “Therefore, one who wishes to attain well-being in this world and beyond should offer food to all those who seek. One should give food in accordance, with time and place, and should keep giving to the limits of one’s capacity, even if it were to cause inconvenience to one’s own family.”

[Note: The world would be a happy place if nations with surplus food share it with those who are short of food, with no strings attached.]

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- “Finding an old person, a child, a tired traveler, or a venerable one at the door, a householder should offer him worshipful hospitality, with gladness in the heart, as he would to his own teacher.”
- “The one who appears at the door at the proper time, even if he were an outcaste or such a one who partakes the flesh of dog, deserves to be worshipped with an offering of food by him who seeks well-being beyond this world” (Bajaj and Srinivas, 1996).

The sage Parashara

The sage Parashara (c. 400 BC) wrote a general text on field crop agriculture. The contents are arranged in a sequence that will be followed even today for a book on introductory agriculture. Some philosophical and spiritual thoughts are reproduced below from his text, *Krishi-Parashara* (Sadhale, 1999):

- “And only through farming one does not become a solicitor. A person, taking to farming would alone be a *Bhu-pati* (a king, literally the master of the earth) in the truest sense of the term.”

- “Even the rich who possess a lot of gold, silver, jewels, and garments have to solicit farmers as earnestly as a devotee would pray God.”
- “Food is life, food is also the strength, food is everything. The divines, the demons, and the humans all live on food.”
- “Worshipping a guest is like worshipping the entire world. It is like worshipping Gods. Nay, the worshipper is himself God Purushottama (literally the best among men).” Parashara also agrees.
- “Farms yield gold if properly managed but lead to poverty if neglected,” said Parashara, the sage well versed in the sacred science of agriculture.
- “An agriculturist who looks after the welfare of his cattle, visits his farms daily, has the knowledge of the seasons, is careful about the seeds, and is industrious is rewarded with the harvests of all kinds and never perishes.”
- “Even a fourfold yield of crops procured at the cost of the health of the bullocks perishes soon by the sighs of their exhaustion.”
- “On the first day of *Kartika* (November) called ‘*laguda-pratipat*’, horns of the cattle should be smeared with oil and

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turmeric powder and 'shyamalata' should be tied to them. A cattle-worship should then be performed."

['Laguda' means a stick or a staff. The cowherds hold a stick in their hand to ward off evil while taking the bullocks through the town in procession on the festival day. 'Shyamalata' is a kind of climbing creeper (*Ichnocarpus frutescens*).]

- After the grain is ready for storage, a farmer should pray the Goddess Lakshmi (goddess of wealth) thus:

"Om! O goddess, the fulfiller of all my wishes, capable of assuming any form of thy choice, bearer of new burdens, bestow wealth upon me as I give wealth to others and as I am a well-wisher of everyone."

"Writing this mantra with his own hand, the farmer should keep it in the storeroom. Thus he should get the maximum wealth. Then he should worship Laxmi, the goddess of wealth in a grand manner."

The sage Kashyapa

The sage Kashyapa wrote a text on farming (Kashyapiyakrishisukti c. 800 AD) with considerably more information than the texts previously written. Verses relevant to environment and spiritual aspects are quoted below (Ayachit, 2002).

- "[Similarly] gratification of mankind and guests through feeding, etc. and timely gratification of cattle are called *bhutayajna*."
- "Earth is also called *Medini* (=fertile) because by producing grains, etc. and medicinal plants, and also by the water springing from its interior, it is conducive to the life of [all kinds of] beings."
- "The bipeds, the quadrupeds, the oviparous as well as all other species of various types exist and sustain life on the earth definitely due to the vital power, which is the quintessence of the land."
- "Due to the nourishment and the gift of vitality to the reptiles as well as bipeds and quadrupeds, gods are ever pleased, leading to truthful righteous conduct, which fructifies the fourfold aim of life. This way nature is fruitful, and the Architect of this world delights. Therefore, grain is the essence of life of the earth; the function of the earth [in sustaining the beings] is the best."
- "[Production of] grains and other vegetation are the sole purpose for highest fulfillment of the earth. The rich earth full of vegetation is the cause of growth of living beings."
- "Land is diverse, yielding fruits even in different ages; it has been commended by multitudes of gods, semi-divine beings, sages, [and] kings."
- "Land is intended to receive excellence in every age. This land is at times immersed in floods of water from oceans."

- “A good quality land yields good results to everyone, confers good health on the entire family, and causes growth of money, cattle, and grain.”
- “The fertile land of villages, cities, and also towns has been declared as fit for growing grain; sage Gargya [a Sanskrit grammarian of Vedic times], the best among the informers, has announced that the grain itself is the pulse of our breath.”
- “An expert should in this way build a deep reservoir of water equipped with a latch to ward off floods when it is inundated.”
- “The king should plan its construction at such places as not to cause fear of danger from flooding. Such reservoirs should be regularly examined.”
- “Trees to be planted should be pleasing to the birds, should yield fruits, flowers, etc., should be cool and delicate, and also should allay diseases.”
- “Thus the thinkers have decided that there would be no happiness without the water reservoirs. Therefore, a king taking up the vow of protection should by all means vigilantly prepare deep reservoirs in villages, in countryside, and also in woodlands.”
- “Even more than the ponds, lakes, wells, etc. protection of canals should be treated by them as their dharma” said the sages who know the truth.
- “The king, after having worshiped Varuna, the presiding deity of water, the goddess Earth, and the sylvan deity, and having given an offering should fix the

lake, well, and oblong reservoir in due course.”

The sage Kashyapa – characteristics of good farmers

Farmers should be virtuous, spiritual, free from *shadripus*, and hospitable to guests. Even a virtuous Sudra can be a leader in a village. Farmers should be careful in utilizing natural environmental resources.

- “Those of the villagers who are engaged in agricultural pursuits should be free from hypocrisy, jealousy, etc. seeking mutual interests.”
- “They are devotees of cow, earth, and gods; they are absolutely truthful in speech, intent on being agreeable to others, and always contented in mind.”
- “Without any foes in the world, their aim is [carrying out] plans of others; beaming with tender love of all the animal class, they are experts in ‘just’ thinking.”
- “They are efficient in calculations, clean, given to purity, devoted in accomplishing essential/obligatory duties in time, and always hospitable to guests.”
- “They are without [any vices like] drowsiness, idleness, etc., devoid of [excessive] desire, anger, etc., mutually friendly, and are always ready to help.”

“Land is intended to receive excellence in every age.”

“Trees to be planted should be pleasing to the birds, should yield fruits, flowers, etc., should be cool and delicate, and also should allay diseases.”

- “Such persons are said to be excellent, of holy appearance, and are real protectors of water reservoirs, canals, etc.”
- “They are intent on protection of cows, enjoy king’s trust, are happy with children, grandchildren, etc. and are amicably disposed to father-in-law, brethren, etc.”
- “In this world, however, agricultural expediencies are seen sometimes among the Sudras (persons belonging to the lowest caste) also. Such a Sudra should be rich in good qualities and devoted to Brahmins.”
- “He should be a believer in the science, respectful, servile towards the saintly, intelligent, knowing the measures of [appropriate] time, beneficent and a lover of beneficence.”
- “Sages with divine insight eulogize agricultural business as the basis of sacrifice and as life-giver of living beings.”

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- “Men should exert and devote themselves to farming whether they get farmlands from a king or purchase one for them.”
- “They are said to please gods and sages. Of all wealth, agriculture is the highest wealth.”
- “Giving delight in several ways, the profession of farming is indeed praiseworthy. Any other livelihood involves dependence.”
- “The natural inclination of people towards agriculture pleases gods and must be nurtured with special effort as it sustains life of all beings.”
- “After having worshiped the goddesses of grains, earth, wealth, speech, Gauri (name of Parvati, Lord Shiva’s wife), Indra (Lord of Gods), Varuna (Lord of Waters), and Kubera (Lord of Money), they should go to their respective fields, along with the bullocks.”

The sage Kashyapa – worship of material resources

- “Worship of the field or land with pure water, sandal paste, etc., incense light offering, etc. yields [good] results.”
- [One should pray to the goddess thus] “O goddess Earth! I bow to you! O all-enduring Earth, now I start agricultural [operations]. O [goddess of] good resolutions, be pleased [with us]. Whatever

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plowing, beating, that I [shall] do with you, O goddess, please excuse me, [and] make me [lord of] great success. They say you are the mother of all living beings; therefore, O goddess Earth, give [us] immeasurable yields on this field.”

- “Thus praising and praying, the farmer should circumambulate [his farmland] with salutations, Goddess Earth, darling of Lord Vishnu.”
- “Praising the quarter-deities and protectors, as also the life-giving Sun, he should make a good start of plowing the field.”
- “Thus praying, and worshiping the bullocks, one should see to it that they are not made to work until they are weary or completely exhausted.”
- “Brahmins, Kshatriyas, Vaisyas, Sudras, the miscellaneous castes, and others, who are engaged in agricultural operations as per advice

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of the Aryans, in accordance with regional customs, and using devices [learned] out of their own experience should deposit the yield of the farmland in their houses on auspicious time and moment.”

- “They should then worship goddess Lakshmi in the form of grain and money, with scents and flowers as also with pure articles laid down in the science [scriptures]. They should then feed the Brahmins and give them gifts in a liberal manner.”
- “They are then blessed with success, happiness, excellent prosperity on this earth, and divine favor, living happily with their children, wife, grandchildren, and family [members].”

Surapala’s Vrikshayurveda

Surapala, a physician (c. 1000 AD), wrote Vrikshayurveda (*Vriksha* = plants of all kinds; Ayurveda = the science of life), a text on arbori-horticulture and made some relevant statements through verses (Sadhale, 1996). These are:

- “What is the use of several trees grown in the forest, or sons who do not serve the purpose of *dharm*a or *artha*? Instead, a single tree by the wayside is far better where under people can rest.”

“Ten wells are equal to one pond. Ten ponds are equal to one lake. Ten lakes are equal to one son. Ten sons are equal to one tree.”

- “Planting five trees is far better than (giving birth to) ten sons (as the former) offer libations to the father (planter) with leaves, flowers, and fruits.”
- “Ten wells are equal to one pond. Ten ponds are equal to one lake. Ten lakes are equal to one son. Ten sons are equal to one tree.”
- “And if one plants a pleasure garden abounding in boundless fruits (yielding many rewards), (then) gods, wise men, nymphs, *yakshas* (name of a broad class of nature-spirits, usually benevolent, who are caretakers of the natural treasures hidden in the earth and tree roots, etc.) reside there for three ages.”
- “Knowing this truth one should undertake planting of trees since trees yield the means of attaining *dharma* (virtuousness), *artha* (earning wealth), *kama* (procreation), and *moksha* (liberation from earthly world and the concomitant suffering involved in being subject to the cycle of repeated death and reincarnation) – the four aims of life.”
- “*Devas* [Gods], demons [evil spirits], *gandharvas* [celestial singers], ghosts, snakes, *rakshasas* [evil humanoids], beasts, birds, and human beings always take resort to the trees” (see box on p. 136).
- “The owner of the farm should wear clean clothes after bath, worship God, offer salutations to his preceptors, offer wealth or land to the worthy, offer salutations to the *vastu* deity (superintending deity) and then (he)

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himself should sow some seeds. The servants should then follow him.”

- “After sowing, the seeds should be covered with grass and sprinkled with water mixed with milk. Water should be sprinkled after they sprout. Grass should be removed and the soil should be allowed to dry.”

Wildlife protection

In general the hunting of animals was done for food. By the time Buddhism and Jainism spread in India, animal killing was almost stopped. However, later the kings and noble Kshatriyas started hunting as a game. Even amongst the kings, there were many who would not indulge in game-hunting. The 13th century Sanskrit text, *Mriga.pakshi. shastra*, briefly narrates a king’s experience as follows:

“Once overpowered with a longing for hunting, King Shaudadeva, accompanied by attendants equipped with tools like snares, nooses, swords, lances, etc., and also by brave warriors mounted on elephants and horses, repeatedly causing scare in the minds of the wild animals by the twang

Devas and rakshasas

Gandharvas, a name used for distinct mythological beings in Hinduism and Buddhism, is also a term for skilled singers in Indian classical music. *Rakshasas* are goblins or evil spirits. They are not all equally bad, but have been classified as of three sorts – one as a set of beings like the *Yakshas*, another as a sort of Titans or enemies of the gods, and lastly, in the common acceptation of the term, demons and fiends who haunt cemeteries, disturb sacrifices, harass devout men, animate dead bodies, devour human beings, and vex and afflict mankind in all sorts of ways.

The *devas* (in Hinduism and Buddhism) are exalted beings of various types. The term *deva* in Sanskrit means “*shining one*”. Hinduism recognizes three types of *devas*: mortals living on a higher realm than other mortals, enlightened people who have realized God, and Brahman in the form of a personal God. *Pitrs* (immediate ancestors), and *manushyas* (men), as also the reptiles and *rakshasas* (demons), and birds, and animals, all of them, live on what the cultivators provide. There seems to be a cooperative partnership between *devas* and human beings which has attracted attention in this time of increasing ecological consciousness. This partnership was discovered in the produce of Findhorn (a charitable foundation) in Scotland and Perelandra in Washington, DC. It seems that *devas* are the “architects” of nature. A *deva* is assigned to every living thing, even the soil. They are the blueprint designers for all living things, and control all necessary energies for growth and health. At the two above mentioned facilities, it is said *devas* dispense information on planting, fertilizing, watering, and general plant care (Source: <http://www.themystica.com/mystica/articles/d/devas.html>).

of his bow entered the area of dense forest wherein the sunrays were obstructed by the shade of various trees and which was (therefore) an ideal habitat for all types of animals. Equipped with bow and arrows as also with a sword, the king himself, riding a horse hunted for the hidden animals resorting to skilful, heroic tactics. There he saw somewhere, lions lying in the mountain dens driving away deer with a single roar and elsewhere tigers emerging out. There were hyenas, bears, and wild buffaloes too. There were elephants resembling dark clouds, some in groups and others in

company of their cows, while still others ready for water-sports. At another place there were peacefully grazing deer and sweetly muttering parrots. There were swans and ducks and there also were other fat birds sitting in their nests.”

“Seeing this, the king’s eyes were filled with tears of great joy. He thought: What a wonderful creation of God! Even the dwellers of heaven cannot imagine this, leave alone the mortals! How cruel of me! How possibly could I desire to kill these living beings? Granted that the inherent

traits of the martial race (Kshatriyas) in me have created this urge (for hunting) in me; shouldn't I think of the welfare and prosperity of the nation? If these animals are continuously killed, hit, and struck with arrows from bows, snares and nooses, swords and other weapons there will be, in course of time, a total extinction of the species. Where can one get to see them again? It is my considered opinion therefore, that it is not proper to kill them. In fact saving each and every individual of these species will be a pious deed conducive to welfare and gratification of the soul.”

As a follow-up, the king asked a forest-dwelling poet in the kingdom to record in detail all kinds of wild animals and birds that are seen in his kingdom, which possibly was in Gujarat state of India. That compilation resulted in the book “Mriga.pakshi.shastra” (Sadhale and Nene, 2008).

Sacred groves

Sacred groves of India are communally protected forest fragments of varying sizes, which usually have a significant religious connotation for the protecting community. Sacred groves did not enjoy protection via federal legislation in India. Some NGOs work with local villagers to protect such groves. Traditionally, and in some cases even today, members of the community take turns to protect the grove. However, the introduction of the Protected Area Category Community Reserves under the Wildlife (Protection) Amendment Act of 2002 has introduced legislation for providing government protection to community held lands, which include sacred groves.

Indian sacred groves are sometimes associated with temples/monasteries/shrines or with burial grounds. Historical references to sacred groves can be obtained from ancient classics as far back as Kalidasa's (420–353 AD) *Vikramuurvashiiya* (Kalidas Academy, Ujjain, India).

Around 14,000 sacred groves have been reported from all over India, which act as reservoirs of rare fauna, and more often rare flora, amid rural and even urban settings. One of the most important traditional uses of a sacred grove was that it acted as a repository for various Ayurvedic medicines. Other uses involved a source of replenishable resources like fruits and honey. However, in most sacred groves it was taboo to hunt or chop wood. The vegetation cover helps reduce soil erosion and prevents desertification. The groves are often associated with ponds and streams, and meet water requirements of local communities. They sometimes help in recharging aquifers as well (Malhotra *et al.*, 2007).

In modern times, sacred groves have become biodiversity hotspots, as various species seek refuge in these areas due to progressive habitat destruction and hunting. Sacred groves, therefore, harbor great genetic diversity. Besides this, sacred groves in urban landscapes act as “lungs” to the city as well, providing much needed vegetation cover.

Trees and the Bishnoi community

Bishnoi community was founded by a Rajput of Bikaner (Rajasthan), who

was born in 1541 AD, and was buried in Samrithal in Bikaner. His spiritual name was Jambhaji. He left his followers a scripture in the Nagri character called Subdhani. The adherents of the sect are the descendants of immigrants from Bikaner. They marry only among themselves, are good cultivators, and keep camels in large numbers. They have a ceremony of initiations, somewhat similar and known by the name as that of Sikhs.

Bishnois are strong lovers of wild animals. It is because of their protection that in Bishnoi-dominated areas, deer and antelope such as blue bulls, black bucks, chinkaras (*Gazella bennettii*), and *chowsinghas* (*Tetracerus quadricornis*) are seen grazing in their fields despite the fact that the state of Rajasthan where the Bishnois mainly live faces severe water shortages.

The Bishnois narrate the story of Amrita Devi, a Bishnoi woman who, along with more than 366 other Bishnois, died saving the *khejarli* (*Prosopis cineraria*) trees. In 1730 AD, Maharajah Abhay Singh of Jodhpur required some wood for the construction of his new palace. So the king sent his soldiers to cut trees in the nearby region of Khejarli, where the village is filled with large number of trees. But when Amrita Devi and local villagers came to know about it, they opposed

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the king's men. The malevolent feudal party told her that if she wanted the trees to be spared, she would have to give them money as bribe. She refused to acknowledge this demand and told them that she would consider it as an act of insult to her religious faith and would rather give away her life to save the green trees. This is still remembered as the great Khejarli sacrifice. Some 363 Bishnois who were killed protecting the trees were buried in Khejarli village near Jodhpur, where a simple grave with four pillars had been erected. Every year, in September, the Bishnois assemble there to commemorate the extreme sacrifice made by their people to preserve their faith and religion (Bishnoi and Bishnoi, 2000).

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Recycling

Movement of recycling of matter and energy are observed in everyday life. Everything is recycled in India, down to the minutest objects; even new materials developed by modern technology are recycled. A guest or visitor is God himself and is to be honored and fed, his requests are to be granted, and from him blessings are expected in return; a sort of recycling of intellectual and spiritual power (Vannucci, 1994). The Vedic truth is to be understood also as knowledge, “which is a gift of God to all men.” Knowledge in the Vedic sense has much in common with what we now call science, hence truth in the Vedic meaning of the word is science as was practiced and expounded at the time when basic instruments of the study were the sense organs, which includes the mind. All intellectual thinking was considered spiritual.

To this day the life of many Indians is a real symbiosis with their cattle; these practices are ecologically wise in that they provide full recycling of organic matter and avoid waste. Nature is to be treated parsimoniously. Through recycling wastes on the farm, discarded animal flesh and bones, left over portions of wet or dry cattle dung and urine, milk unfit for consumption, and such other items were utilized to make a liquid ferment that was excellent liquid manure called *kunapajala* (Sadhale, 1996).

Concluding remarks

Throughout the past millennia, literature written and verbally transferred from one

generation to another emphasized that people including farmers can instill in them a genuine respect for environment, both animate and inanimate entities. People were advised to live in harmony with all natural forces, and also not excessively disturb the balance between natural forces. In other words, overexploitation of natural resources should be avoided.

Training to be a pious person starts in the family and should continue in schools and colleges. Emphasizing moderation of *shadripus* (lust, anger, greed, attachment, vanity/conceit, jealousy) in personality development in every society should go a long way in building a happy mankind. The task is extremely difficult because today most of the urban world has come to regard ‘money’ as ‘God’. This drives them to overexploit natural resources to get more money. If we do not reverse the trend, I believe the environmental forces will reeducate humans, through harsh lessons, to live in harmony with nature.

Whether we like it or not, food habits will have to change. Foods which are efficiently produced will have to dominate the diets of both the rich and the poor. Wastage of food,

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which is unbelievably large, will have to be reduced. It would be appropriate if mass media project the thoughts and experiences of Masanobu Fukuoka, Mahatma Gandhi, Henry David Thoreau, and several others on simple living so as to curb lavishness in food consumption. Mahatma Gandhi had once said: "Earth provides enough food to satisfy every man's need, but not for every man's greed." Political leaders, religious leaders, social workers, and the lay population must realize that if they do not ensure a reduction in human population, environment (nature) will ensure it. Components of environment are also 'forces' of environment. Environment's ways of reducing populations are cruel and merciless.

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