

Environmental Sustainability Lessons from Ancient India

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We are aware that environment and ecology comprising air, earth, water, plants and animals play a very significant role imperative in sustaining human life and civilisation. Human civilisation can flourish only if there is consistent harmony among various stakeholders in making optimum sustainable use of the world natural resources and take responsibility to protect the environment from any degradation and damage. Today all nations' developed, developing or underdeveloped suffer from the environmental crisis of pollution. Environmental pollution problems are by far the most rapidly growing concern for people both staying in a small village and in a highly developed smart cities around the world.

In today's world people are suffering from pollution, imbalance in environmental cycles, typhoid, cholera, jaundice, hepatitis and other water and air borne diseases in addition to cancer that is only increasing day by day. Environmental degradation due to deforestation, siltation, air, land, insanitation, water and noise pollution all pose a grave threat not only to the quality of human life but also to its basic survival. The condition is slowly turning so serious in our modern technological society that it is no longer feasible for anyone of us to ignore. This awareness about ecology among humanists is only a response to the rampant environmental degradation and destruction of varying dimensions that is happening as a corollary to technological accomplishments.

Environment and ecology not only influence human behaviour but also the culture of a nation and Indian culture is no different. In this respect the study of our ancient Vedic literature could prove to be of great value as these scriptures prescribes various actions to follow for preserving the geographical, climatic and environmental condition preventing pollution benefitting healthy life and living. Vedas are the world oldest literature in Sanskrit serving the human race from time immemorial. Ancient Indian civilisation flourished with our seers contributing to linguistics, mathematics, agriculture and horticulture, natural sciences like physics, chemistry, biology, engineering and technology, architecture, aeronautics and navigation, cosmology, astronomy and astrology, medicine and high philosophy, etc., when other parts of the world were undeveloped or in total darkness.

Ancient Indian civilisation did not face environmental related problems as acutely as in recent times; however, the Hindu culture very clearly depicts the moral sense of ecology and the inseparable human nature relationship. Although ancient India did not face ecological problem we can surely trace the awareness that existed when we study the literary records such as the Vedas, Smritis, Samhitas, Puranas, Upanishads, Niti Shastras. It is true that there does not exist separate literary treatises that deals on environment as a subject of study however, indirectly we do find mention of these principles in books of religion, laws, literature, etc. Sanskrit literature is a treasure house of knowledge with wisdom regarding human social welfare and harmony, unity, fraternity, peace and prosperity also teaching us to take steps for the protection of our clean environment. Jain and Buddhist traditions too made efforts to emphasis and establish these basic Vedic principles of ecological harmony eventually synthesising it both physically and spiritually in forming a responsible ethical philosophy.

Vedas the most precious Indian heritage and the source of all knowledge is a collection of thoughts and ideas about living and non-living matter that influences culture and environment on the existence of human, plant and animal life. Ancient Hindus living in proximity to nature realised their indebtedness to nature for its splendour and usefulness to society to be one with nature. The following hymn (Rigveda 8. 58. 2) confirm this thought. In order to survive the world around them and to improve their quality and quantity of life, Vedic people learnt to harness the power of nature

एक एवाग्निर्बहुधा समिद्ध एकः सूर्यो विश्वमनु प्रभूतः।
एकैवोषाः सर्वमिदं वि भात्येकं वा इदं वि बभूव सर्वम्॥

-ऋग्वेद ८.५८.२

Agni, the sole one is kindled in many ways.
Sun, the sole one manifests in all things.
Usha, the sole one illuminates all universe.
The one (Sole Power) has become all this.
- Rigveda 8. 58. 2

and we can observe this from their various references about air, water, plants, animals, etc., and their efforts to keep the environmental balance in check as per the demands of society. This close relation was able to elicit the understanding of nature to win co-operation of the winds, rain for monsoon regularity, astronomical recurrences to control the adverse impact of natural occurrences like earthquakes, river flow, floods, forest fires and other major elements in nature. Early Indians attitude toward nature was not dominating but rather treating themselves as a small part of the entire cosmos, in addition to treating the entire universe as one family. The Sanskrit saying talks on behalf of the entire human community that is now apt and relevant for consideration in a world full of terrorism and turmoil.

"वसुधैव कुटुम्बकम्"
"The whole world is one family"

The Vedas and Smritis mention that air, water, land and mechanical devices are the four the main causes of environmental pollution. Air is the basis of human life and all measures to control air pollution are necessary. Atharvaveda (4. 13. 3) asserts that pure air is itself a medicine and directs that one should take care to maintain its sanctity. It says that the oxygen laden air invigorates the vitality of the human life force and the when passing through the human intestines/bowels removes all impurities and disorders. The Rigveda (6. 37. 3) calls fresh air as the panacea of all diseases and directs one not to destroy or do anything to reduce the oxygen content in it. Pollution free clean environment keeps all people, birds and animals live happily (Atharvaveda 8. 2. 25). The Rigveda (10 .51. 1) and the Atharvaveda (4. 2. 8) mentions that a layer of "mahatulba" covers the earth all around and to harm this layer is destructive to the earth similar to tearing or damaging the membrane for the embryo. Today the hole formation in the ozone layer that absorbs 99% of the ultraviolet rays of the sun is making us all anxious.

Vedic literature amply stress that to maintain environmental purity the correct balance of the interrelated mutually sustaining celestial bodies namely the sun, the space and earth is essential. The sun is the energy source; the space provides possibility of rain and the earth uses this energy to provide food grains and oxygen for sustaining life. Trees and plants provide oxygen and depend on rains for survival. Earth, water, air and fire all together is necessary for supporting life on earth. In order to safeguard habitation, afforestation and to prevent pollution, the Vedas suggest the following.

- Plant more trees.
- Ban felling of trees.
- Protect forests.
- Purify environment.
- Use solar energy
- Use electromagnetic waves.
- Take special efforts to plant herbal and medicinal plants.
- Keep balance between fire (Agnaya) & coolness (Somiya tatva).
- Desist from polluting land and water.

Today when we are struggling for a better environment, the Vedas actually teach us to take steps for the protection of clean environment. Rigveda, Yajurveda, Samaveda and Atharvaveda all clearly recognise the importance of maintaining the seasonal cycles that leads to climatic changes largely due to inappropriate human behaviour and actions. The ancients treated nature holistically giving utmost reverence to preserving its various entities and elements.

"माता भूमि पुत्रुहान प्रथ्व्या"
"Earth is my mother and I am her son"

The Sanskrit shloka clearly indicates the relationship of humans with earth comparing it to like a mother and child inferring that one should not harm either the environment or its flora and fauna. Another significant prayer in Rigveda actually invokes the divine to intervene and protect the environment.

मधु वाता ऋतायते मधुक्षरन्ति सिन्धवः । माध्वीर्नः सन्त्वोषधीः ॥
मधु नक्तुतोषसो मधुमत पार्थिवं रजः । मधु दयौरस्तु नः पिता ॥
मधुमान नो वनस्पतिर्मधुमानस्तु सूर्यः । माध्वीर्गवो भवन्तु नः ॥
शं नो मित्रः शं वरुणः शं नो भवत्वयमा ।
शं न इन्द्रो बृहस्पतिः शं नो विष्णुरुक्रमः ॥
ॐ शान्तिः ॐ शान्तिः ॐ शान्तिः ॥

- ऋग्वेद

The winds waft sweets, the rivers pour sweets for the man who keeps the law, so may the plants be sweet for us.

Sweet be the night, sweet be the dawn, sweet the terrestrial atmosphere and sweet be our father heaven to us.

May the tall tree be full of sweets for us and full of sweets be the Sun, may our milch- kine be sweet for us.

Be Mitra gracious unto us, Varuṇa and Aryaman too, Indra, Bṛihaspati be kind and Viṣṇu of the mighty stride.

Om! Let there be Peace in me!
Om! Let there be Peace in my environment!
Om! Let there be Peace in the forces that act on me!

- Rigveda

Hinduism conceptually worships the five cardinal elements of nature namely, Earth, Water, Air, Light & Cosmos. Various beliefs and customs prevalent in Hindu homes repeatedly remind one about environmental conservation and ecological balance. We all know that plant ecology keeps environment in balance. The ancient seers of the Matsya Puran, considering this very fact cleverly utilised this in tune with the Indian psyche by comparing trees to humans propagating a message of immense environmental importance. The basic instincts of most people are to having their own children or otherwise at least adopt to continue life itself. Humans procreate to continuing their lineage, passing on their knowledge, possessions, empires, businesses etc. In an Indian milieu, daughters mostly leave their maternal homes to build a new house after marriage therefore not surprisingly becoming customary in most societies to desire and beget at least one son.

Water from time immemorial has always been an important natural resource need for sustaining life. In ancient ages, water availability issue was only in terms of distance, however today water availability itself is a problem with staring scarcity due to excessive pollution. India from ancient times considers it fundamental to keep water bodies clean and do rain harvesting. Ancient Indian tradition lays great emphasis on maintaining and nurturing water bodies using all available water purification techniques (e.g., jala-kataka-renu powder). The Vedas says that every person has to do two kinds of deeds, one for self, another for society. It recommends deeds like building a well, an artificial pond for rainwater-harvesting, opening a school, hospital, a residential inn, etc., for the benefit of the society.

The closest water source is mostly building a well, conserved with raised walls with steps to climb up close to it to help draw water with pulleys and buckets. Since, drawing water daily from the well involves hard work people took care to use it carefully without wasting it. Vāpī is a much bigger well, or rather a huge open catchment area, well-marked with walls and steps to climb down as water level drop after usage that could store water for a whole village for the dry months. Vāpī in addition also had water outlets in its outside for animals to drink. Bāvaḍī the current Hindi word originates from the Sanskrit word vāpī. A hrada is a natural reservoir formed in the calm area of a river bend so naturally much larger than a vāpī. Similarly, the current Hindi word 'haud' originates from hrada. The importance of son (to carry on with the family business or knowledge) in earlier times was so much that they felt right to compare a son to ten such huge reservoirs, a metaphor acknowledging the importance of a son. However, more important than a son is a tree, emphasising that trees are greater than their son is. A tree naturally develops an eco-system around itself, supporting different insects, birds, animals in addition to humans, enriching the environment with oxygen and soil with its dead leaves as nutrients. A son would only take care of his family, whereas a tree could take care of ten such families, therefore the significance of trees is that they are ten times more important than an already important son (child) is.

Disclaimer: Specific readers may feel offended that the above paragraphs lays undue importance on sons at the cost of daughters, however please realise the main point, here is to stress the importance of trees for the environment. Please note the author is not trying to emphasize the importance of sons over daughters (even though it reflects the cultural desire to have at least one son). Note these shlokas does not compare daughters against sons, but only emphasizes the importance of trees. A son would pass on one lineage unlike a tree that will selflessly help so many life forms for generations! Moreover, for group nouns, most languages use the masculine form address (for e.g., we call a group of lions, lionesses, cubs as 'a pride of lions', similarly, the word putra covers both son and daughter even though it specifically means son. Additionally, many times authors also choose words to fit the meter of the shloka, instead of a longer word for children. **Readers may please note!**

दशकूपसमा वापी दशवापीसमो ह्रदः ।
दशह्रदसमः पुत्रो दशपुत्रसमो द्रुमः ॥
- मत्स्य पुरान १५४:५१२
**A pond equals ten wells and
a reservoir equals ten ponds.
A son equals ten reservoirs,
and a tree equals ten sons!**
- Matsya Puran 154 : 512

The religious books and culture of Indians also attach abundant prominence on Tulshi (Basil), Ashvattah (Pippala Peepal, *Ficus religiosa* Peepal), Vatavriksha (Banyan) and various other trees with many shlokas available in Vedic literature expounding the benefits and importance of these trees to humans. One good example is the prayer to the Peepal trees wherein it states the presence of the Hindu Trinity and the second from Shrimad Bhagvata that states that all the trees have divinity (Gods) existing in them. One shloka in the Atharvaveda also prohibits the cutting of the Banyan tree citing its health benefits and the resident presence of the divine.

मूलतो ब्रह्मरूपाय मध्यतो विष्णु रूपिणे ।

अग्रतः शिवरूपाय वृक्षराजाय ते नमः ॥

My salutations to the King of the Trees,
Whose root is the form of Lord Brahma,
Whose middle is the form of Lord Vishnu,
and Whose top is the form of Lord Shiva!

मूल ब्रह्मा त्वचा विष्णु शाखा रुद्रोमहेश्वरः ।

पातले पातले देवानाम् वृक्षराज नमोस्तुते ॥

— श्रीमद् भागवत

With Brahma in your roots, Vishnu in
your body, Shiva in your branches and
other Gods & Goddesses living in your
leaves, Oh Tree - the King I salute you!
- Srimad Bhagwat

अश्वत्थो देवसदनस्तृतीयस्यामितो दिवि ।

तत्रामृतस्य चक्षणं देवाः कुष्ठमवन्वत ॥

— अथर्ववेद ५.४.३

It is prohibited to cut Vat Vriksha as
Gods live in this tree and you get no
disease where this tree is planted.
- Atharvaveda 5. 4. 3

Linking the existence of divinity in these trees prohibits its indiscriminate cutting for self-use. Modern scientific studies also support the ancient theory that Peepal & Banyan consume the maximum amount of carbon dioxide from air and release oxygen thereby balancing air quality. Incidentally, Peepal & Banyan partially continue to do this even during night enabling humans to sleep under it even at night. The Rigveda and Aushadhi Sukta even go to the extent of addressing these trees "Oh Mother, hundreds are your birth places and thousands are your shoots."

To encourage active plantation the Varaha Purana (12-2-39) in one of the shloka states, "Those who plant one Peepul (*ficus religiosa*), one Neem (*azadiracht indica*), one Bargad (*Ficus bengalensis*), ten flowering tazers, two Pomegranates, two Oranges, and five Mango trees can never go to hell." Hindus have also worshipped many other trees for specific purposes. Some common ones are Bakula, Bilva, Champaka, Coconut, Kadamba, Rudraksha, etc. Maitrayani Samhita describes mother earth as the source of all kinds of medicinal plants and a "Devajayani" or adored by the deities. Sage Manu suggests punishments to persons indiscriminately cutting down valuable trees. Yagnas existed during Vedic times to purify even the environment. The ancients knew that mountains cause rains and provide medicines and to save them, advised people to live there instead of in the villages.

Even today, Hindus do 'Sankalpam' (Intention or Purpose of a ritual) during the start of religious ceremonies. It is 'Maha Sankalpam' (extensive) in case of a more important ceremony, in which recitation of the names of seven holy forests, seven holy cities and all the major holy rivers in India and all the major

temples in the country and giving respect to the trees and forests is mandatory. The Yajurveda (Rudram and Chamakam Mantras) calls Lord Shiva as the Lord of the Forests (Vanas Pathi), Lord of the Trees (Vrkshanaam Pathi) and Lord of the Animals (Pasupathi) in several hymns. Some Vedic hymns also describe Lord Shiva as a big forest and his hair (the trees and leaves) as green! The Hindu religion pays respect to nature; always remember its value to prevent destruction of the environment. Orthodox Hindus even today begs for pardon, before putting their feet on the ground when they wake up in the morning. This shloka stands testimony to this.

समुद्रवसने देवि पर्वतस्तनमण्डिते ।

विष्णुपत्नि नमस्तुभ्यं पादस्पर्श क्षमस्व मे ॥

Mother Earth, who has the ocean as clothes,
adorned by mountains and forests, and is the
consort of Lord Vishnu, I bow to you to please
forgive me for touching you with my feet.

The Sun, fire, birds and animals, too play an important role in purifying our environment and Vedas mention their various beneficial characteristics desiring their welfare. Birds, forest animals and domesticated animals all have their own environment and from a human perspective, all are equally important. The general advices, which clearly stand out in the Vedic text are that all animals should be safe, protected and lead a healthy life. Protection of bird and animals is inherent in the Hindu way of life. The first four earthly incarnations of Lord Vishnu viz., Matsya, Kurma, Varaha and Narashima all signify divine animal forms of the almighty lord making their life secure. Hindus worship even a cobra snake during Naga Panchami and bulls during Sankranti.

Vedas strictly ban the killing of animals. Vedic shlokas also ban the killing of scavenger animals that feed on carcasses and filth. The following are some shlokas from Vedas testifying these valid facts.

यस्मिन् सर्वानि भूतान्यात्मैवाभूद्विजानतः ।

तत्र को मोहः कः शोकः एकत्वमनुपश्यतः ॥

— यजुर्वेद ४०. ७

See all living beings as souls. Do not
feel infatuation or anguish at their
sight. Experience oneness with them.

- Yajurveda 40. 7

अग्न्या यजमानस्य पशून्पाहि ॥

— यजुर्वेद १.१।

"O humans! Animals are
Aghnya (that ought not to
be killed) protect the
animals."

- Yajurveda 1. 1.

पशुंस्त्रायेथा ७ - यजुर्वेद ६. ११

Protect the animals - Yajurveda 6.11

अनागोहत्या वै भीमा कृत्ये मा नो गामश्च पुरुषं वधीः ।

— अथर्ववेद १०. १. २९

It is definitely a great sin to kill
innocents. Do not kill cows, horses
and people.

- Atharvaveda 10. 1. 29

घृतं दुहानामदिति जनायाग्ने मा हिगंसीः - यजुर्वेद १३. ४९
आरे गोहा नृहा वधो वो अस्तु - ऋग्वेद ७. ५६. १७

Do not kill cows and bulls who always deserve to be protected - Yajurveda 13. 49

Cow slaughter is a heinous crime equivalent to a human murder and those who commit this crime should be punished. - Rigveda 7. 53. 17

इमं मा हिगंसीरेकशङ्गं पशुं कनिक्रदं वाजिनं वाजिनेषु । - यजुर्वेद १३. ४८

Do not slaughter this one hooved animal that neighs and who goes with a speed faster than most of the animals. - Yajurveda 13. 48

Vedas have a lowly view on people killing animals and eating meat.

य आमं मांसमदन्ति पौरुषेयं च ये क्रविः ।
गर्भान्खादन्ति केशवास्तानितो नाशयामसि ॥
- अथर्ववेद ८. ६. २३

We ought to destroy all those who eat cooked as well as uncooked meat and meat involving the destruction of males / females fetus and eggs.
- Atharvaveda 8. 6. 23

अनुमन्ता विशसिता निहन्ता क्रयविक्रयी ।
संस्कृता चोपहृता च खादकश्चेति घातकाः ॥
- मनु स्मृति ५. ५१

Those who permit slaying of animals, those who bring animals for slaughter, those who slaughter, those who sell meat, those who purchase meat, those who prepare dishes out of it, those who serve that meat and those who eat are all murderers.

- Manu Smriti 5. 51

Various details study of Vedic texts clearly depicts the vision of the sages that pure water, air, environment, etc., are essential for good health and happiness and hence found the presence of the divine in all of them. Keeping the environmental scenario unpolluted, clean and peaceful was necessary to spend the general life span of humans in ancient India that was around hundred to hundred and twenty years. The following verse from the Yajurveda (24/36) expresses the desire of the ancients to spend their life span of hundred years or above without any ailment. This they could only achieve if they spent their life in an unpolluted clean and peaceful environment strictly within the framework of the Vedic way of life.

The world is surely today more efficient, industrially forward looking and information oriented. However, it is an ecologically deficient society essentially compromising for better lifestyle, status and power. The Yajurveda prayer to the God almighty to maintain and preserve the environment comprising all its constituents is apt for us to know. Thus, Vedas clearly gives us a message indicating that the world environment belongs to all living beings and necessities protection by all, for everyone's well-being.

तच्चक्षुर्देवहितं पुरस्ताच्छुक्रमुच्यरत् ।
पश्येम शरदः शतं, जीवेम शरदः शतं,
५क्षुण्वाम शरदः शतं, प्रब्रवाम शरदः शतं,
शतमदीनाः स्याम शरदः शतं, भुयश्च शरदः शतात् ॥२४॥
- यजुर्वेद ॥३६॥

O Lord, who sees all living beings and is the wellwisher of the Devas, I pray, to you to grant me hundred years of life, with correct eyesight for hundred years, right hearing for hundred years, powerful speech for hundred years and be independent to carry out human activities for hundred years or for even more than a hundred years. ||24||

- Yajurveda || 36||

ॐ द्यौः शान्ति रतिरक्षंशान्तिः
पथिवी ॥ शान्ति रापः शान्तिरोषधयः शान्तिः।
वनस्पयः शान्ति विश्वेदेवाःशान्ति र्बिह्वशान्तिः
सर्वशान्तिः शान्तिरेवशान्तिः सा मा शान्तिरेथधा॥
ॐ शान्तिः शान्तिः शान्तिः॥

- शुक्ल यजुर्वेद ॥३६-१७॥

Let there be balance in the space!
Let there be balance in the sky!
Let there be peace on the earth!
Let there be calmness!
Let there be growth in the plants!
Let there be growth in the tree!
Let there is grace in the Gods!
Let there be bliss in the Brahman!
Let there be balance in everything!
Let there be peace and peace!
Let such peace be with everyone of us!

- Shukla Yajurveda ||36-17||

Hinduism is an environmentally sensitive and friendly philosophy, laying emphasis on the conservation of nature and protection of the environment. Our Vedic literature provides sufficient knowledge about all aspects of life including environment and conservation.

Ancient India was famous as a society that made immense contribution to civilization with its education, knowledge power and spirituality. Our ancestors who were outspoken defenders of nature respected and cared for its balance. This awareness and understanding of ecological sustainability in solving specific environmental issues is what we unfortunately overlook today. We will have a balanced, peaceful life, only if we refrain from disturbing our surroundings; make sufficient efforts in planting trees, conserving soil, protect biological diversity, harness natural energy largely to maintain a balanced environmental harmony. With guidance from our ancient heritage, it is time to reignite our dormant inner energy to light up our minds and embark on a constructive endeavour to bring peace, prosperity and happiness to our Nation and the world at large.

ईशावास्यमिदं सर्वं यत्किञ्च जगत्यां जगत् ।
तेन त्यक्तेन भुञ्जीथा मा गृधः कस्यस्विद्धनम् ॥
- ईशोपनिषद्, मन्त्र १

God pervades the entire universe,
Enjoy all of nature as gifts from God,
but with a spirit of renunciation!
Do not be attached to them!
Do not covet the wealth of others;
Control Greed!

- Isha Upanishad, Mantra 1