

CLIMATE CHANGE : ISSUES AND CHALLENGES — A VEDIC PERSPECTIVE

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ABSTRACT

Today's world is facing grave environmental challenges. To overcome present environmental challenges, we can learn much from our ancient Vedic culture along with modern technologies to protect our environment. Veda has listed five basic Yajans (sacrifices) to be performed practically i.e. Brahmayajna, Devayajna, Pitrayajna, Atithiyajna and Balivaishyadevayajna to upkeep the whole environment pure and safe along with providing philosophical knowledge to the human. It was the duty of each individual to perform these Yajnas in the ancient times. These Yagnas protect and enrich our environment. Vedic culture enriches our body, mind, society, atmosphere and environment. This paper will discuss the modern and the Vedic definition of Environment and how Vedic scriptures will help us to face the environmental challenges effectively besides the modern technology.

Keywords: Environment, Science, Vedic Scriptures, Yagna.

INTRODUCTION

Climate or Environment and Ecosystem:

To say in layman's words, environment means weather i.e. anything surrounds us constitutes environment. Not to define the word scientifically, environment consists of 4 spheres intersecting each other. These are: Lithosphere (soil), Hydrosphere (water), Atmosphere (air) and Biosphere (life). So when we talk about environment and its balance or imbalance, we are actually talking about the inter-relation of these four constituent elements.

Having understood what is meant by environment in its broader and scientific terms, let's study another important term called – Ecosystem. Scientifically speaking, the term means, the inter-relation between the organism (living being) and its environment (only three elements excluding biosphere). To further elaborate, organism consists of plants, animals and other micro-organisms (i.e. living beings) which environment consists of the surrounding i.e. soil, water and air. Now, these two elements of the ecosystem continuously act and react on each other thus causing some reversible and irreversible changes. Whereas, there are certain balancing forces which keep these changes within permissible limits and thus prevent any permanent damage to the organism or the

environment. This has been proved in many scientific theories and can be evidenced in the Carbon, Nitrogen, Water and other cycles observed in nature.

But due to some human actions, this balancing action of nature gets disturbed. And so-called reversible, temporary and within-permissible-limit changes are rendered irreversible, permanent and beyond-permissible-limits. These are the changes which concern us and are the topics of our discussion today. What are these changes, what are the threats posed by these changes to the human, animal, plants and all living organisms on our planet, what are the remedies suggested by the science and what is the role of Vedic knowledge in dealing with this situation – these and such questions will be dealt with in this paper.

CLIMATE CHANGES

It is seen that for last billions of years, earth's atmosphere and hydrosphere have been composed of approximately same balance of chemical components we live with today. The earth has a unique mechanism for stabilizing and controlling the global climate. These mechanisms are:

- i. The plants and animals balance carbon dioxide level of the atmosphere which acts as a global thermostat. For, CO₂ gas absorbs the outgoing heat radiation from earth and is therefore responsible for control of temperature.
- ii. Water bodies (ocean) play an important role in regulating global climate.

In recent years, the rapid growth in population, the rate at which we consume the earth's resources, extravagant life styles etc. lead to substantial increase in carbon level of atmosphere.

Some of the important factors affecting the climatic change are - Global Warming, Ozone Layer depletion and Acid Rain.

'Global Warming' refers to the gradual rise of atmospheric temperature due to human action. As per research estimates, the surface air temperature of the earth over past 100 years has increased by about 0.5 to 0.7 degree Celsius. This is due to Green House Effect. To understand this effect in a nutshell, it means, certain gases like CO₂, Methane, CFC and NO₂ have the tendency to absorb more amount of radiated heat from earth. Thus, increase of their percentage in atmosphere leads to the increase in overall temperature of the earth. Now, what are the sources of these gases? Or, why is their percentage increasing in the atmosphere? Sources of CO₂ is burning of fossil fuels, fire woods, automobile emissions, factory emissions etc. Paddies, livestock, waste dumps and coal mining are the major sources of Methane. Refrigerating agents are the major sources of CFCs and Chemical industries are the major suppliers of NO₂ to atmosphere. This coupled with the large amount of de-forestation and felling of trees which are the major carbon sink (as they absorb carbon dioxide and emit oxygen) has led to the imbalance in global thermostatic conditions.

CONSEQUENCES OF GLOBAL WARMING

1. It is estimated that if the present rate of increase of CO₂ level continues, it will result in rise of atmospheric temperature by 20°C to 30°C by the end of 21st century. This will result in melting of icecaps in polar regions and of many major glaciers at higher altitudes. According to an estimate, if all the ice of the earth would melt, about 60 meters of water would be added to the surface of all oceans and low lying coastal areas. A rise of only 50-100 cm is sufficient to flood the low lying areas of the world such as Bangladesh, West Bengal as well as densely populated cities such as San Francisco and Shanghai.
2. Incidences of cyclones and hurricanes will increase due to increased global temperature.
3. A slight increase in world temperature would adversely affect the world food production, as well as causing to extinct many more animal species from the surface of this planet.

Other two climate change phenomenon (e.g. Ozone Layer depletion and Acid Rain) can also be similarly analyzed and traced for their cause and consequences.

Development or Destruction

Alarmed by these devastating effects, scientists, politicians and thinkers of the world are compelled to pause and think about the so-called Development that has caused this grave situation. We all know that human beings, with the help of technological developments and consumption of energy resources have made many inventions and discoveries to make their life more and more comfortable. We cannot think about life without technology and mineral and power resources today. But have we ever thought that if we continue to consume our natural resources with the same rate, most of the resources will be consumed within next 100 years or so? Not only that, but we are also polluting our atmosphere (land, water and air) so badly, that the so-called renewable resources like water are also turning non-renewable. (e.g. Yamuna water). Many such questions put question to the very concept of development and hence world leaders are now aiming not only for technological development and economic growth but for Sustainable Development and Equitable Growth. A committee was formed under the leadership of Norway Prime Minister Brundtland, known as United Nations Commission on Environment and Development (UNCED) also known as Brundtland Commission which proposed a plan to be executed by all the Developing and Developed countries of the world together so that there is a balance between Economy, ecology and technology which is must to protect our future. Suggestions of this commission include the reduction of air pollution (carbon emission) by reducing the fossil fuel burning, by technological innovations, by replacing the fossil fuels by cleaner fuels, by reducing the consumerism (which is an offshoot of materialism), by population control and by spreading awareness among people i.e.

by educating them about the imminent danger if we continue to live our lives in the same fashion as we live today.

VEDIC PERSPECTIVE

Now, having seen what are the climate issues that we face today, and what are their causes and possible remedies suggested by science, let's look at what our ancient heritage, our cultural legacy, our Vedic scriptures suggest us in dealing with this problem.

Academic institutions now offer courses, such as environmental studies, environmental management and environmental engineering, that teach the history and methods of environment protection. But many of us do not know that protection of the environment has been stressed from the Vedic Period onwards in our Sanatana Dharma (Hinduism) codes. Environmental protection is influenced by three interwoven factors: environmental legislation, ethics and education. Each of these factors plays an important role in taking national-level decisions and in molding personal-level values and behaviors.

The protection and preservation of environment is integral to the culture and religion of most human communities; nature is seen as an essential part of the society at large.

One may wonder how an ancient lifestyle can be a solution to a problem which is of a recent origin when the issues like Global Warming and Deforestation and Pollution were almost absent in ancient society. How can then we be benefitted from their cultural and philosophic outlook and gain from their life style? The answer is, we will not get direct "HOW TO DO IT" kind of answers from the Vedic Civilization to deal with the problem at hand. Nor are we suggesting going back to the Vedic age and following the lifestyle which the Vedic seers followed in ancient ages – that will be suicidal. But it is an object of common knowledge that all the problems or crisis which we face today are the result of man and nature interaction; it is the result of human response to the environment in which we live. This being so, if we can make this human response more apt, more suitable and more harmonious with the whole scheme of nature, obviously we will be succeeded in creating a better picture, a greener nature and a brighter future for us all. So study of Vedic Perspective is to gain this holistic understanding which will help us to live harmoniously with our nature and with each other.

CONCEPT OF ALL-INCLUSIVENESS

According to Hindu scriptures our personal well-being is interminably intermixed with the environmental well-being and this is because we are not a separate individual existing unconnectedly with our surrounding, but we are the part of the Whole, like a link in the spider-web

and slightest disturbance at one end of the web affects the whole web invariably. Our Vedas have from time-immemorial have proclaimed that –

अयं निजः परो वेति गणना लघुचेतसाम् । उदारचरितानां तु वसुधैव कुटुम्बकम् ॥ ⁱ

Meaning : This is mine or that is his - this is the thinking of the small-minded people. But for the large-hearted ones, the whole world itself is a family.

Thus, Vedas have taught all-inclusiveness from the beginning. And that our well-being is not in our personal pleasure-seeking but in seeking the well-being of ALL together, not excluding our environment. And that is why Donation दानम् has always been revered as a divine virtue. Says a famous *Subhashita*–

परोपकाराय फलन्ति वृक्षाः परोपकाराय वहन्ति नद्यः ।

परोपकाराय दुहन्ति गावः परोपकारार्थमिदं शरीरम् ॥ ⁱⁱ

Meaning: Trees bloom for others' benefit, rivers flow for others' benefit, cows give milk for others' benefit; therefore, this body of ours is also for the benefit of others.

This attitude of all-inclusiveness was the prominent characteristics of the Vedic religion from the beginning. This was the very reason, there was no religious bigotry and fanaticism found in Indian religious history, which is so obviously present in all other major religious traditions.

DIVINITY OF NATURAL FORCES

Another important reason why nature came to be cared for and worshipped in Vedic tradition was because Nature and its forces were regarded as Divine. This does not necessarily mean some superstitious belief. Rather, there is a deep philosophical thought behind it, not knowing which critics often criticize *Sanatan Dharma* as superstitious and polytheistic (believers in many Gods). Let's look at the philosophic background in a brief that gives sufficient rational background to this idea of this so-called polytheism. According to *Sankhya* tradition of Cosmology, the process of creation begins with the will that sprouted in the Cosmic mind of Brahman – ‘कोऽहम् बहुस्याम्’ ‘*I am One, But I will become Many*’. And from it came out this multifarious nature or *Prakriti* having three gunas – Sattva, Rajas and Tamas. This *Prakriti* coming in contact with *Purusha*, lost the equilibrium in these gunas and through more and more changes, produced more and more objects of this world which basically consist of five elements and they are - Prithvi, Tej, Aap, Vayu and Akash. These elements in their subtle and gross form then combine together and give rise to all living and non-living beings. Thus, everything of the world, including the living beings (organism) and non-living beings (environment) are the modification of same *Prakriti* and *Purusha* and hence, they are all divine. And there is no basic difference between them. In fact the idea of OTHER does not exist in Vedic tradition. All is ONE.

भमिरापोऽनलो वायुः खं मनो बुद्धिरेव च ।
 अहंकार इतीयं मे भिन्ना प्रकृतिरष्टधा ॥ ७-४ ॥
 अपरेयमितस्त्वन्यां प्रकृतिं विद्धि मे पराम् ।
 जीवथुतां महाबाहो ययेदं धार्यते जगत् ॥ ७-५ ॥
 एतद्योनोनि भुतानि सर्वाणीत्युपधारय ।
 अहं कृत्स्नस्य जगतः प्रभवः प्रलयस्तथा ॥ ७-६ ॥
 मत्तः परतरं नान्यत्किञ्चिदस्ति धनंजय ।
 मयि सर्वमिदं प्रोतं सुत्रे मणिगणा इव ॥ ७-७ ॥ⁱⁱⁱ

Krishna says in Gita that these two Prakritis called *Para* and *Apara* are My own product (प्रकृति विद्धि मे). And therefore everything that exist (सर्वमिदं) are, as it were, strewn into Me, like the pearls are strewn into a thread (सुत्रे मणिगणा इव प्रोतं). This philosophy of One consciousness origin of all world helped the Vedic seers to look upon the world as an object of Divine origin and thus worship it in true spirit. Similar passages are found in *Mundaka Upanishad* also.

एतस्माज्जायते प्राणो मनः सर्वेन्द्रियाणि च ।
 खं वायुर्ज्योतिरापः पृथिवी विश्वस्य धारिणी ॥ ३ ॥
 अग्नीर्मूर्धा चक्षुषी चन्द्रसूर्यौ दिशः श्रात्रो वाग् विवृताश्च वेदाः ।
 वायु प्राणो हृदयं विश्वमस्य पद्भ्यां पृथिवी ह्येष सर्वभूतान्तरात्मा ॥ ४ ॥^{iv}

In the **Mundaka Upanishad**, the divine is described as follows: “*Fire is His head, His eyes are the moon and the sun; the regions of space are His ears, His voice the revealed Veda, the wind is His breadth, His heart is the entire universe, the earth is His footstool, truly He is the inner soul of all.*”

Cosmic order or RITAM

As we have seen while studying the scientific approach to climate change, there is a natural balance in different components of environment. In Vedic tradition, this balance was called RITAM. And it was considered as a Divine Order that keeps different forces that are in action in the Universe in control. As acknowledged by the scientists and environmentalists, the fact that this balance gets disturbed only by man's excessive greed was also recognized by Vedic seers. They reiterated the same in consonance with Mahatma Gandhi who said, “Earth has enough for every man's need but not for his greed.” **Ishopanishad** says—“मा गृधः कस्यस्विद धनम्”

So, as understood by modern science and by common people as well, the root of all the crisis that we have landed ourselves in our attitude of excessive seeking, in our never-quenchable thirst for more and more pleasure, more and more wealth and more and more luxuries, even at the cost of our fellow-beings and of course at the cost of our mother-nature. This is known as consumerism

which is a well-bred culture in West, and the roots of which lie in Materialism. But in our Vedic tradition, life was divided in two parts – *Pravritti* and *Nivritti* i.e. *Abhyudaya* and *Nishkreyasa*, the outgoing tendency of mind and incoming tendency of mind, in outward growth and in inward fulfillment. Vedic seers didn't condemn the pleasures or luxuries or outward growth as is a common misconception about them. They accepted it as a necessary stepping stone in complete development of a human being. Only they emphasized the right means to attain them. This idea is well-known as the philosophy of *PURUSHARTHA* – *Dharma*, *Artha*, *Kama* and *Moksha*, where *Dharma* implies Moral and Ethical code of conduct, the rightful means of attaining *Artha* (lit. meaning Money or the means of fulfilling desire) which will procure *Kama* (desire or pleasure-seeking). And only when the *Artha* of means are based on *Dharma* or ethics, can the *Kama* or pleasure be purifying and can lead a man to the highest or *Parama-Purushartha* or *Moksha*. First three belong to this world while the last one belongs to the other world. Now, in materialist philosophy, as the *Kama* has become a Supreme *Purushartha*, the means are being overlooked. Seeking of pleasure has become so important that man is willing to destroy the very means which ensure him this steady supply of pleasant things. He is hell-bent to kill the golden goose in quest of getting all the golden eggs at once. This attitude of pleasure-seeking is to be balanced and corrected with the right understanding and foresight and insight that it will ultimately lead to doom. For it will not only kill the Pleasant thing we are seeking but it will also kill the very person, the pleasure-seeker in long run"—“भोगा न भुक्ता वयमेव भुक्ता”^v.

Pleasures are not exhausted but we ourselves got exhausted. This idea of controlled enjoyment in an ethical and moral way is the teaching of Vedic Culture and which is to be imbibed by man if he has to save himself from the impending danger of extinction.

Practical suggestion

One may ask after hearing all of these discussions, whether all that Vedic tradition has to offer is of the form of philosophical outlook and has nothing practical to practice? Well, the answer is – It is not so. There are practical suggestions. In Vedic period, people used to practice 5 types of *Yajnas*.

पञ्च वा एता महायज्ञाः—देवयज्ञः पितृयज्ञः भूतयज्ञः मनुष्ययज्ञो ब्रह्मयज्ञ इति^{vi}

India is the home of Vedic culture, which is over 5,000 years old and the *Panchamahayajna* (the five great sacrifices), has been a vital part of this culture. The *Panchamahayajna* are *Brahmayajna*, *Devayajna*, *Pitrayajna*, *Atithiyajna* (or *Bhootayajna*) and *Balivaishyadevayajna* (or *Manushyayajna*).

Brahmayajna relates to daily prayer to the Almighty, study of the Vedas and other spiritual scriptures. In today's context even if you're an atheist still finding some time for meditation and

say, the breath (which does not need any more proof of existence) and reading some positive, motivational scriptures can do a lot of good to the mental environment called *mind*.

Devayajna is about performing sacrifices to devas, in ancient terms it is called *havan*. Though this might sound like purely religious and pertaining to Hinduism, the positive effect of such havans on atmosphere and society in general is ample. Agnihotra is one such Devayajna which has now come to the limelight of scientists and various studies regarding its effect on atmosphere and the vegetation around is in progress. In short, Devayajnas promised the purity of one's intellect, mind, body and most importantly the atmosphere.

Pitravajna is nothing but giving due respect and taking adequate care of one's parents and elders of the family. This also includes proper upbringing of one's progeny. Had this culture been upheld properly, then there would have been no Old Age Homes and Orphanages in India.

Atithiyajna, as the name suggests, pertains to respecting and serving one's visitors. The Vedic list of visitors included any truthful, pious soul. All saints, sages and learned people fell under this category.

Balivaishyadevayajna requires one to be compassionate and responsible to all other fellow species. If we humans had executed this Yajna dutifully then, words like extinct species and endangered species would not have entered our lexicon.

Thus, performing these sacrificial rites in their right spirit and not merely as rituals will purify our minds and intellects and thus purify our environment which is nothing but the response that we give to it. Unless our minds are purified from the pollution of selfishness and over-acquisitiveness, we cannot be succeeded in reducing the pollution in our Environment.

CONCLUSION

In conclusion, we would like to call forth everyone to come forward in the efforts to purify our environment and make our earth a beautiful place where Gods dwell. You will be glad to know that, a poem written by an Indian Poet **Mr. Abhay** whose Earth Anthem has been recognized Internationally on June 5th, which is celebrated as the World Environment Day all over the world by United Nations, and also has been translated in 6 UN recognized languages, including Hindi and Nepali. The Anthem is thus:

*Our cosmic oasis, cosmic blue pearl
the most beautiful planet in the universe
all the continents and the oceans of the world
united we stand as flora and fauna
united we stand as species of one earth*

*black, brown, white, different colours
we are humans, the earth is our home.*

*Our cosmic oasis, cosmic blue pearl
the most beautiful planet in the universe
all the people and the nations of the world
all for one and one for all
united we unfurl the blue marble flag
black, brown, white, different colours
we are humans, the earth is our home.^{vii}*

REFERENCES

1. Taitariya Aranyakam, Gitapress, Gorakhpur.
2. N.J. Lockyer, The dawn of Astronomy, Massachusetts, Institute of Technology, p. 432.
3. Raja Ram Mohan Roy, Vedic Physics, Scientific Origin of Hinduism, Golden Egg Publishing, Toronto, 1999, p.6.
4. S.R.N. Murthy, Vedic View of the Earth, O.K. Printworld, New Delhi, 1997, p.12.
5. Srimad Bhagavad Gita, Gitapress, Gorakhpur.
6. Mundaka Upanishad, Gitapress, Gorakhpur.
7. Hitopadesha, Vishnu Sharma, Choukhamba Sanskrit Bhavan, Varanasi, 1990.
8. Vairagya Shatakam, Bhartrihari, Choukhamba, Sanskrit Bhavan, Varanasi, 1990.

(End notes)

- i Hitopadeshah, Sandhi
- ii Subhashita Sangraha
- iii Bhagavad Gita - (7/3-7)
- iv Mundaka Upanishad - (2/1/3)
- v Vairagya Shatakam, Bhartrihari
- vi Taiteriya Aranyaka
- vii "Earth Anthem" by Abhay K