

International Conference on  
Recent Trends in Humanities, Education,  
Arts, Culture, Languages, Literature, Philosophy,  
Religion, Gender and Management Studies (HEALM-2019)

---

# ECOSOPHY: AN INTERFACE BETWEEN ECOLOGY AND PHILOSOPHY

**Professor Raghendra Pratap Singh**

*Centre for Philosophy, School of Social Sciences,  
Jawaharlal Nehru University, New Delhi-110067  
E-mail: rpsinghjnu1957@gmail.com, rpsinghjnu@yahoo.com,  
rpsingh@mail.jnu.ac.in*

---

Ecosophy is a philosophical approach to ecology. The term 'ecosophy' was introduced by the Norwegian philosopher Arne Naess who defined it as a discipline, like philosophy itself, which is based on analytical thinking, reasoned argument, and carefully examined assumptions on nature and our relationship to it. He distinguished ecosophy from ecophilosophy; it is not a discipline in the same sense but what he called a 'personal philosophy', which guides our conduct toward the environment. He defined ecosophy as a set of beliefs about nature and other people which varies from one individual to another.

"By an ecosophy I mean a philosophy of ecological harmony or equilibrium. A philosophy as a kind of *sofia* (or) wisdom, is openly normative, it contains both norms, rules, postulates, value priority announcements and hypotheses concerning the state of affairs in our universe. Wisdom is policy wisdom, prescription, not only scientific description and prediction. The details of an ecosophy will show many variations due to significant differences concerning not only the 'facts' of pollution, resources, population, etc. but also value priorities."<sup>ii</sup>

In 1973, the term 'deep ecology movement' was introduced into environmental literature by Arne Naess. Environmentalism emerged as a popular grass roots political movement in the 1960's with the publication of Rachel Carson's book *Silent Spring*. Those already involved in conservation/preservation efforts were joined by many others concerned about the detrimental environmental impacts of modern industrial technology. The longer range, older elements of the movement included writers and activists like Thoreau and Muir, whereas the newer mainstream awareness was closer to the wise conservation philosophy of people like Gifford Pinchot.

Ecosophy is a reflection of the nature of philosophy as such because "Philosophy is conceived parochially on an international scale. It is a subject that means different things to

different continents, different countries, different universities and different minds. There is no one philosopher."<sup>iii</sup> Just as, "The philosophers, however, have *not merely thought* in a *ceRtain* way but also *thought that they thought* in a *ceRtain* way."<sup>iiii</sup> Likewise everyone, in other words, has one's own ecosophy, and though our personal philosophies may share *impoRtant* elements, they are based on norms and assumptions that are particular to each of us. Naess proposed his own ecophilosophy as a model for individual ecosophies, emphasizing the intrinsic value of nature including bioregionalism, bio diversity, biotism and the importance of cultural and natural diversity. Other discussions of ecosophy concentrate on similar issues. Many environmental philosophers argue that all life has a value that is independent of human perspectives and human uses, and that it is not to be tampered with except for the sake of survival. Human population growth threatens the integrity of other life systems; they argue that our numbers must be reduced substantially and that radical changes in human values and activities are required to integrate humans more harmoniously into the total system.

Ecology (Gr. *Oikos*) means 'house' or 'place to live'. It is the study of the relationships between organisms and their environments or, broadly speaking their houses. Life and environments are interdependent. If there were no environment on earth, its life today would have been different. Conversely, if the environment had not changed, the earth would have been devoid of many animals and plant species which inhabit it now. Ecology can also be defined as the study of ecosystems, or self regulating communities of different kinds of living beings interacting with one another and with their non-living environment.

The word 'ecology' is of recent coinage, having been first proposed by the German biologist Ernst Haeckel in 1869.<sup>iv</sup> Before this, many great men of the biological renaissance had contributed to the subject even though the label "ecology" was

not in use. Hippocrates published a paper entitled “On Air, Water and Places”. Aristotle studied the habits of animals and environmental conditions. Theophrastus may be regarded as the first ecologist in history because he wrote on the communities, in which plants are associated, the relation of plants to each other and to their physical environment. Ecology is nothing but the art and science of seeing things as a whole. Our body is a good example of an entity, which can be seen as an organic whole. We know that a nail driven into a finger affects every part of the body, for they are all parts of an interconnected whole. Though we are most of the time totally unaware of it, a deep interconnection exists between everything; every man is connected by invisible bonds to every other fellow-being, dead or alive, to every creature in the non-human realms and even to the non-living aspects of the universe. This invisible web of interconnections is the basis of all ecology. Ecology is concerned with 4 problems- environment pollution, depletion of natural resources, population growth, and the destruction of survival economy with market economy. It also implies ecologism or ecocentrism- an ideology demanding new attitude towards i) society-nature relationship, b) conventional economic reasoning. Extreme thinking on this line emerges in Deep Ecology. It is different from techno- centric environmentalism- fitting of catalytic converters in cars, carbon dioxide scrubbers in factories, chimneys, etc.<sup>v</sup>

#### **Sustainable Development and Intrinsic Value of Nature:**

Sustainable Development emerged during 1980s as a balance and symbiosis between environment protection and development. Sustainable development aims to satisfying the needs of the present generation without compromising the ability of the future generations to meet their own needs. It involves- 1. Environment combating pollution and avoiding non-renewable resources, 2. Equity/ equality regarding inequalities in people’s access to resources, and 3. Both environment and equity for the futurity of development.<sup>vi</sup> Sustainable society based on ecologism has three co-related values i) Bioregionalism- where one’s food comes from and how it is grown in the land and its potential, it is against high industrialization. <sup>vii</sup>ii) Biodiversity- It implies bio diversity- the co existence of different categories of flora and fauna, it is against fast –growing species in forestry, modern plant and animal breeding for genetic uniformity and high yielding varieties in agriculture, monocultures of industrial species like eucalyptus and uniform production are against the sustainability of and biodiversity in agriculture, forestry, fisheries and animal husbandry;<sup>viii</sup> iii) Biocentrism- It is a strong sense of respect for nature in its own right- Earth’s biotic community both human and non human as a whole has an intrinsic value, good, well being, and welfare. It rejects anthropocentrism that non human living beings have no goodness, etc. Trees can grow, blossom and decay, sustain other’s life or death, the good in non human organism is to the full development of their biological powers.<sup>ix</sup> All the three values demand radical changes in our social habits and

practices like motorization, industrialization, urbanization and population. It proposes a critique of Enlightenment rationality which has attached instrumental value to non human organism. Deep Ecologists have proposed the mystification and demystification/ deification of nature and have argued that we should live lightly on earth and should not try to transform it. Nature has intrinsic value, however attributing intrinsic value to an object limits the ways in which that object can be used.<sup>x</sup>

During the last thirty years philosophers in the West have critiqued the underlying assumptions of Modern philosophy (from Descartes to Kant) in relation to the natural world. This development has been part of an ongoing expansion of philosophical work involving cross cultural studies of world views or ultimate philosophies. Since philosophical studies in the West have often ignored the natural world, and since most studies in ethics have focused on human values, those approaches which emphasize ecocentric values have been referred to as ecophilosophy. Just as the aim of traditional philosophy is *sophia* or wisdom, so the aim of ecophilosophy is ecosophy or ecological wisdom. The practice of ecophilosophy is an ongoing process, comprehensive, deep inquiry into values, the nature of the world and the self.

**Rgvedic Perspective on Ecosophy:** The mission of ecophilosophy is to explore a diversity of perspectives on man-nature contexts and interrelationships. The primitive man used to live in harmonious relation with nature. Man deified nature but in his deification, there was harmonious relation with nature.<sup>xi</sup> In the primitive societies, the tradition was thought to keep a harmonious relation with nature. Rgveda

advocates *Rta* ( [Sanskrit](#) ऋत) which stands for whole cosmic order and god Varuna as its guardian. Varuna was originally conceived as the personalized aspect of the otherwise impersonal *Rta*, and that, as the importance of *Rta* began to wane in the late Vedic and post-Vedic periods, Varuna was demoted to the position of a god of the waters. *Rta* is known as *sat*, *param*, *mahān*, unmanifest *sangathan*, *vilaya*, order, system, nature, but not Brahman, it is there since creation. It gave birth to Gods and Goddesses. The *Rta* was not created or willed by any being or beings, the gods or any other above them. It existed before them but became known by them. They were powerless to alter it; they were only agents to execute it or supervise its execution. “*Rtam, Satyam, Dharmmam*”– Cosmic Laws (*Rta*) are eternal truths (*Satyam*) and following these Laws of Nature is Vedic Dharma. “*Rtam, Satyam, Vijnani*” *Rgveda* 1-75-5- knowing and finding out these Laws of Nature (*Rta*) is Knowledge.

*Rta* is the essential unity/harmony between sentient and non-sentient beings, *vyasti* (human) and *samasti*, i.e. *sristi*. It is the law operating between *karma* and its *phala*. The transition from *Rta* to *dharma* is the same as from Vedas to the Upanishads. Nobody except humans can violate *Rta*. Therefore the duty of the *Purush* is to protect the cosmic

order. Humans are protectors or destroyers of *Rta*, if humans protect *Rta*, *Rta* will protect humans, like *dharmo rakshati rakshitah*. It is an obligation for humans to protect *Rta*, *panch mahabhutas*. Nature is a gift from *Rta*. *Rta* was gradually replaced by *dharma* (duty with cosmocentric approach, to protect the order for meaningful life. Nature is ordered, balanced and harmonious. Human beings, like all living things, have a place and a purpose in this order.<sup>xiii</sup>

**Pluralistic Perspectives on Nature:** Man tries to follow the order which is inherent in nature. This order or knowledge is expressed in the process of nature; nature cannot be dubbed as unconscious, insentient or unintelligent. In Vedanta, the whole Reality is named as *Brahman* which comes from the root *Brh* i.e. to grow and develop in an orderly manner. An insentient, unconscious thing cannot grow. The attributes attached to this Reality are *Saccidananda* i.e. existence, consciousness and bliss. Though nature may not show consciousness or self-awareness, it does not mean that nature is not conscious. With ecological imbalance now, there is a growing worldwide consciousness that the earth itself is a living organism – an enormous being of which we are parts. It has its own metabolic needs and vital processes which need to be respected and preserved. “Ultimately human consciousness is nature’s own consciousness. Nature has made man know, man has learnt from nature and the capacity to learn from nature also he owes to nature.”<sup>xiii</sup> There is still much more to be known about nature. Newton had once said that there is a vast ocean of knowledge and I have got only a particle of sand from the sea-shore of the ocean of knowledge. Scientific approach to nature though practically as well as theoretically very important and valuable, is not the only way of understanding nature. It requires normative and evaluative approaches as well. Nature is to be perceived and viewed from the artistic, moral, religious, mystic and other approaches. These approaches are as important and valid as the scientific approach. These are axiological approaches. We have now shifted from the mechanistic view to a holistic and ecological view of the world. It is a shift in human perception.

**Modernity and the Problems of Ecosophy:** The conflict between man and nature i.e. the problem of ecology started when man looked upon nature as a machine during modernization of Europe- Cartesian Galilean mechanics and Newtonian physics. “... Neither evolutionary hypothesis nor, dialectic relation between man and nature could imagine the animistic attitude of wholeness. With the development of these views nature became an epitomic example of unconscious existence. What is necessary is to see how nature is not an unconscious object alien to human existence and subject to be treated as merely a means for his material well-being.”<sup>xiv</sup>

For centuries, there was co-existence between nature and the living creatures, but with the advent of modern civilization, with science and technology, consumerism, extrinsic and not intrinsic value of nature based on utility, unprecedented and unbridled growth of population, there arose the disturbance in

the harmonious relationship between the living creatures and nature. The environment has been polluted. Environment affects all aspects of human life-physical, biological, social and cultural. In the search for harmony with nature, man is, in a way, in search of his soul. The inner and outer environments of man are in conflict as it were, as a result of changes in the physical environment. Hence, man finds himself at times not properly adjusted to the external physical environment. Paradoxically, this conflict and lack of harmony between the external and the internal environment tend to create unstable equilibrium. It is necessary therefore to restore the internal harmony of man and nature. This harmony is essential since disharmony tends to create violence. As the UNESCO preamble says “wars start in the minds of men, so it is in the minds of men that we must build a peaceful disposition.” Our survival depends on our interaction with the environment. As the quality of the environment improves, so does the quality of human life. Man and nature are equal partners in the building of culture and with this consciousness nature is to be treated at least in a friendly manner, though it deserves to be treated reverentially. It fosters deeper and more harmonious relationships between place, self, community and the natural world. This aim is furthered by comparing the diversity of ecosophies from which people support the platform principles of the global, long range, deep ecology movement.

**Eco-system Gone out of Gear:** We have exploited nature like anything. In the blind race of progress we have emptied so many resorts of nature. We have used up not only the natural wealth of our share but of so many generations. The results of ecological imbalance will harm the generations to come! We have polluted air, water, food, land and even the milk of the mother! The depletion of ozone layer, Acid rains and the increasing heat of the earth has put the existence of man in danger. Man considers himself to be a rational animal but no other animal has made his cave so dirty and poisonous as man has made!

Today, the majority of the people in all parts of the world are breathing polluted air. Incomplete combustion of fuels, remittance of large quantity of smoke and gasses through different industrial activities and miscellaneous operations such as buildings of wastes etc., spreads hundred of tones of pollutants in the air, every year. Irritation of throat and eyes and offensive odors have become a frequent if not continuous aspect of city living. Some of the pollutants pass deep into our respiratory system affecting the delicate mechanism which supplies us with oxygen and carries away carbon dioxide. Progressive destruction of this system leads to many diseases such as emphysema and chronic bronchitis.

Nuclear energy which was hailed as a marvelous gift of science to humanity is now being viewed as a menace. There are studies which show that nuclear testing has been responsible for many infant deaths due to the fallout of strontium-90 which has long been recognized as a hazard to man. On ingestion it goes straight to bone along with calcium

and the fear is that it might many years later give rise to leukemia and bone-marrow cancer. Our mad race for economic development through industrialization at the cost of environment would ultimately lead to disaster. If the present rate of pollution is not checked the man will see, eat and breathe pollution so the solution lies in harmonizing of economic development with environment. The Government of India has also formed a new "Department of Environment", in November 1980.

Indiscriminate use of pesticides upsets the very delicate ecological balance, creating all kinds of unforeseen repercussion. The chemical controls on plant and insect life often means that man ends up poisoning himself. Similarly the use of chemical fertilizers has deprived the soil of the natural ability to fix nitrogen.

The destruction of millions of trees (without due care to replant them) for fire wood and in building, roads, towns and cities, the burning of fossil fuels to meet the increasing needs of traffic and transportation and the use of chemical measures and pesticides to speed up agricultural production, and the use of nuclear power to meet the ever increasing demands for the use of nuclear power are some of the prime factors responsible for throwing the present day eco-system out of gear.

Deforestation activities are continuing at the alarming rate of 1.5 million hectare per year to meet the demand for more land for agriculture and food production. Millions of tons of surface soil are lost through wind and water erosion per year. Such ecological imbalances leading to environmental degradation affect the climate. The manufacture of hundreds of consumer and luxury products results in various kinds of pollution. More and more new finished products are being produced every year for the comfort and luxury of man. The wastes produced during their manufacture are blown away by the wind or carried down the river stream without any steps being taken to dispose them off safely. Added to these is noise pollution. The major causes of pollution are industrialization, urbanization and motorization.

The global environmental problem is not merely a problem of pollution. The over-emphasis on the material aspects of our civilization is perhaps the cause and pollution is the effect.

Disturbance in any component of the environment is likely to have a harmful effect on the ecosystem. For the conservation of the ecosystem it is essential that the environment should be conserved. Man is a part of the environment and of the ecosystem and also needs to be conserved.

In November 1992, 1575 Scientists, including 100 Nobel Prize winners released a "Doomsday Alert". They warned that if exponential population growth and threats to the Earth's atmosphere, oceans and fish, water resources, soil, forests and living species did not stop and if responsible stewardship of the earth did not occur, the global environment would be irretrievably mutilated by the year 2030.<sup>xv</sup>

### **Eco-logos and Eco-nomos:**

Lester R. Brown has pointed out that the earth's principal biological systems are four – fisheries, forests, grasslands and croplands – and they form the foundation of the global economic system. In addition to supplying our food, these four systems provide virtually all the raw materials for industry except minerals and petroleum derived synthetic. In large areas of the world, human claims on these systems are reaching an unsustainable level, a point where their productivity is being impaired. When this happens, fisheries collapse, forests disappear, grasslands are converted into barren waste lands and croplands deteriorate.<sup>xvi</sup>

In conquering nature, technology becomes a way of life and utility value for man. Economic rate of growth, increase in per capita income and national wealth are the criteria of the measurement of the general welfare. Thus quantitative aspects become more important than the quality of life. The concept of welfare should not be considered only in quantitative terms but should include non-measurable qualities of life.

The problem is due to the great appetite that modern man has shown for the use of technology in material growth. Economic growth at the exponential rate has been the standard for modern progress. We cannot give up economic development, however there has to be a sense of proportion between the supply and demand of resources on the one hand, and the impact of their use on environment on the other. The UN declaration makes this point explicit when it says: A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to earthly environment on which our life and well-being depend.

The throw-away culture of industrialization and Westernization has led us to so much of waste that the earth cannot bear any more. The northern developed countries of the world are using up 70% of products of the world though having only 25% of the world's population, while the southern developing countries of the world are using only 30% of products of the world. Economic theories should be ecologically sound providing adequate material environment for man so that man lives as a creative being. Emphasis should be on an adequate distribution system having into consideration what various ecological systems produce. The whole economic system may not be necessarily competitive. Conservation as an ideal for nations and international economic order seems logical.

Mahatma Gandhi suggested developing self-sufficient, decentralized economy both from socio-economical and ethical grounds. He believed that big business and high technology were inimical to the growth of such a dispersed economy and advocated the use of as simple and as few machines as possible.

**Globality of Consciousness:**

Think globally and act locally is very apt in case of environment protection. The threat of war anywhere is danger to peace everywhere. The same is true of the Environment. The global warming, deforestation, depletion of fossil fuels, pollution and other climatic changes, remind us of the stark reality that the earth is one, even though politically the world is not one. Humans have been the destructors of environment and of ecological balance. It is the same humans who are capable of setting the things right and building better future for tomorrow. Environment reminds people of their own responsibilities, in addition to their rights. In 1972 the world's first nationwide Green party was founded in New Zealand. The idea of the ecological stress will contribute to social instability and civil strife. Ecological considerations have naturally enough led internationalists to appeal for the creation of a world government or a world federation to solve so called environmental problem.

In the zoo at Lusaka, Zambia, there is a cage, where the notice reads, "The world's most dangerous animal", inside the cage there is no animal but a mirror where you see yourself. Man, of late, has realized how much damage he has done to the world. In the words of Brown Lester- we have to realize that we had not inherited the earth from our forefathers. We have borrowed it from our children. The future generations have equal rights over the natural resources. If we do not act responsibly, we are sure to face dooms day! "No generation has a free hold on this earth. All we have is a life tenancy – with a full repairing lease."

There can be no doubt that the growth of world population is one of the strongest factors distorting the future of human society. It took mankind more than a million years to reach the first billion. That was the world population around the year 1800. By the year 1900, a second billion was added, and the 20<sup>th</sup> century has added another 3.7 billion. The present world population is estimated at 7 billion. Every four days the world population increases by one million. Human population, like other populations is ultimately limited by the biosphere's carrying capacity. Increases in population and consumption could outstrip the capacity of the biosphere to support life. If man continues his present exploitative attitude to nature, she will not care for the survival of the human species. Nature will finally assert itself.

For the first time in human history we see a transcending concern – the survival not just of the people but of the planet. We have begun to take a holistic view of the very basis of our existence. The environmental problem does not necessarily signal our demise, it is our passport for the future. The emerging new world vision has ushered in the Era of Responsibility. It is a holistic view, an ecological view, seeing the world as an integrated whole rather than a dissociated collection of parts.

Environment is a multi-dimensional and multi-faceted problem. It is complex and compound in nature. There is no single or simple solution to the environmental problems. It requires a lot of persuasion, hard-work and mutual respect and understanding. Partisan and parochial approach may hurt the cause itself. I give below the proposal of the deep ecology movement as originally formulated by Arne Naess and George Sessions in 1984 while on a hiking trip in Death Valley California: "The well-being and flourishing of human and nonhuman Life on Earth have value in themselves. Richness and diversity of life forms contribute to the realizations of these values and are also values in themselves. Humans have no right to reduce this richness and diversity except to satisfy vital human needs. The flourishing of human life and cultures is compatible with a substantial decrease of human population. The flourishing of nonhuman life requires such a decrease. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening. Policies must therefore be changed..."<sup>xvii</sup> I would like to add the following points:

1. Science and technology are not value neutral; their human misuse must be value oriented. Science has ethical obligations to sustain Humanity and Environment. It has to be used as a strategy to command future by emphasizing on the intrinsic value of nature.
2. Exhaustible resources need to be conserved: Wastage and misuse of resources must be avoided and flow resources must substitute fund resources.
3. Population growth has to be checked; quality of man – power has to be enhanced.
4. Science must promote sustainable economic development –to sustain men at reasonable comfort levels; to conserve Environment and its resources; to stop environment degradation; to meet the needs of the Present, without compromising the ability of future societies to obtain their needs; to manage the environmental systems within the limits of the natural laws to draw upon its endowments; to stabilize the environment of life at optimal utilization levels; to encourage use of science and technology aesthetically, for human welfare and prosperity.

To meet the ever increasing needs of the energy for the welfare of the growing masses, new energy sources will have to be tapped. Renewal and non-traditional sources of energy like solar radiation, wind power, tidal power, bio-gas and geothermal energy will have to be urgently explored and nuclear energy will need to be shunned to protect man from its harmful effects. We may rationalize material poverty and recommend simpler life-styles which are ecologically sound. For example, most sophisticated modern military technology is not in conformity with ecological requirements of man. Even the purpose behind such technology - of guaranteeing national security – is doubtful. Ecologically we are imposing an unnecessary burden on the global environment. Life-styles need to be adjusted to seek more harmonious ecological goals.

The stress on over-consumption and extensive use of natural resources in the developed countries needs to be examined in order to maintain inner harmony with nature.

The people in the developed countries where the level of literacy, education and awareness is more, should think in terms of saving the resources for the posterity and must have self-restraint on their conspicuous consumption patterns. We have to remember Mahatma Gandhi's prophetic statement: **"The earth provides enough to satisfy everyman's need, but not for everyman's greed"** He wrote no ecological treatise, but made one of his life, and it is no exaggeration to suggest that he left us, in his life, one life in which every minute act, emotion, or thought was not without its place: the brevity of Gandhi's enormous writings, his small meals of nuts and fruits, his morning ablutions and everyday bodily practices, his periodic observances of silence, his morning walks, his cultivation of the small as much as of the big, his abhorrence of waste, his resort to fasting — all these point to the manner in which the symphony was orchestrated.<sup>xviii</sup> From Gandhian perspective, we need to develop, as Naess in ecosophy has outlined, framework for cross cultural analysis of grass roots social-political movements. Naess distinguishes between four levels of discourse.<sup>xix</sup> In forming cross cultural global movements, some general consensus develops that focuses the movement through platform principles (as is the case for many movements--literary, philosophical, social, political, etc.), such as the principles of social justice, or the principles of peace and nonviolence, or the principles for the deep ecology movement (DEM). Movements so described have their principles emerge from the bottom up and are thus called grass roots movements (as in the Gandhian tradition), not top down power over hierarchies. The aim of ecosophy is global and comprehensive view of human and natural situations. Comprehensive includes the whole global context with us in it, sharing a world with diverse cultures and beings. We move toward a total view via deep questioning--always asking why--to ultimate norms and premises, and via articulation (or application) to policies and practices.

## References and Bibliographies

- <sup>i</sup>Drengson, Alan and Yuichi Inoue, Editors. 1995. *The Deep Ecology Movement: An Introductory Anthology*. Berkeley, North Atlantic Publishers. p.8, for details, please see Naess, Arne. 1991. *Ecology, Community and Lifestyle*. London, Cambridge.)
- <sup>ii</sup> Wisdom J.O., 1995, *Philosophy and Its Place in Our Culture*. (London, Garden & Beach Science Pub.), pp.1-2.
- <sup>iii</sup> Daya Krishna, 1955, *The Nature of Philosophy*, (Calcutta, Prachi Prakashan, p. 211.) One may also consult Pande, G.C., *Research Methodology in Social Science*, New Delhi, Anmol Publications, 1989. Sage Publication has come out with series of books on Method. One may also consult Feyerabend's *Against Method* and Emancipation from method in the Postmodern discourse.
- <sup>iv</sup> William Ashworth & Charles E. Little, 2006, *The Encyclopaedia of Environment Studies*, N.Delhi, Viva Book Pvt. Ltd., p.147.
- <sup>v</sup> David Pepper, 1993, *Eco-Socialism: From Deep Ecology to Social Justice*; London, Routledge, pp. 3-4.

- <sup>vi</sup> Redclift, M.R. *Sustainable Development: Exploring the Contradictions*, London, Methuen, 1987, p. 439, Tim Hayward, *Ecological Thought: An Introduction*, Cambridge; Polity Press, 1994. WCED (World Commission on Environment and Development) 1983
- <sup>vii</sup> Andrew Dobson, *Green Political Thought: An Introduction*; London, Unwin Hyman, 1990, p. 117, Kirik Patrisciale, *Dwellers in the Land: The Bioregional Vision*, San Francisco, 1985.
- <sup>viii</sup> Vandana Shiva, *Biodiversity and Ecological Perspectives*; Malasia, World Rainforest Movement, 1991, p.48
- <sup>ix</sup> Robin Attfield, in Tim Hayward's *Ecological Thought*
- <sup>x</sup> Bryan G.Norton, *Why Preserve Natural Variety*, Princeton, 1987, p.219. In 1970s the international community became aware of the relation between development and environment degradation, First conference at Stockholm in Sweden 1972, Club of Rome on 'Limits of Growth' 1972-74, Jimmy Carter commissioned 'Global 2000' in 1982.
- <sup>xi</sup> I was told by an European – American Friend that the red Indians of America, when they used to go hunting, they used to prey to the deity of the forest and lived in that forest only for three days so that the forest was not much destroyed but we the Europeans went on using and destroying forest until it got completely ruined.
- <sup>xii</sup> RV 7.52.9; RV 8.25.2; RV 7.40.4. For the abode of rta!! see: RV (*sadana*) 1.43.9, 1.164.7, 2.34.13, 4.21.3, 4~4, 7.36~ 7.36.5, 7.53.2, 10.100.10; (*sadas*) 3.7.2, 3.55.12, 4.51.8, 5.41.1, 10.111.2; (*sadma*) 3.51.14. The Rgveda contains hymns *Rks* in praise of *Rta* from which this division derives its name.
- <sup>xiii</sup> Ibid. p. 180
- <sup>xiv</sup> Javadekar, A.G. "Philosophical Ecology," in *Indian Philosophical Quarterly*, Vol. IX No.2 Jan 1982 (Poona University, Poona), p.179.
- <sup>xv</sup> Bajwa, G.S., "Problem of Environmental Pollution and its Management in India", *World Environment Series, Environmental Pollution and Management* (ed); L. Mohan (Ashish Publishing House, New Delhi, 1989), p.33.
- <sup>xvi</sup> Brown, Lester. *The Great Transition: Shifting from Fossil Fuels to Solar and Wind Energy*, Earth Policy Institute, 2015
- <sup>xvii</sup> Stan Rowe & Arne Naess, *The Trumpeter* 1996, 13, 1, and now online at <<http://www.ecospherics.net>> retrieved 04.18.2019
- <sup>xviii</sup> Vinay Lal, "Too Deep for Deep Ecology: Gandhi and the Ecological Vision of Life", in *Hinduism and Ecology: The Intersection of Earth, Sky, and Water*, eds. Christopher Key Chapple and Mary Evelyn Tucker (Cambridge, Mass.: Harvard UP for Center for the Study of World Religions, Harvard University, 2000), pp. 183-212; another version was published as "Gandhi and the Ecological Vision of Life: Thinking beyond Deep Ecology", *Environmental Ethics* 22, no. 2 (Summer 2000), pp. 149-68.

<sup>xix</sup> Table Showing Levels of Questioning and Articulation

Level I	Ultimate Premises	Taoism, Christianity, Ecosophy T, etc.
Level II	Platform Principles Movement	Peace Movement, Deep Ecology Movement, Social Justice Movement, etc.
Level III	Policies	A, B, C, etc.
Level IV	Practical Actions	W, X, Y, etc.

[The above chart is a simplification of Naess's Apron Diagram. See Drengson and Inoue, 1995, pp. 10-12.]