

Interdependence, Inappropriability of the earth and Human survival

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The multiplying demands upon the ecosphere which supports all life are rapidly exhausting the resources of planet Earth. With the increase of population, the provision of basic human necessities (food, shelter, clothes, space, health, education) demands more and more food, energy and raw materials which are already in short supply. With the world population reaching 6,5 or 7 thousand million people, the increase in economic activity is bound to further disrupt the natural ecosystems (water, natural vegetation, etc.) which maintain the biosphere's conditions of life. The challenge of the future is awesome. Towns and cities of the world already are in crisis, failing to provide basic facilities and services. Problems of unemployment, pollution, congestion, slums and squatter settlements, inadequate transportation, social alienation and crime are mounting everywhere.

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All traditional societies were based on a non extractive covenant with nature and their sustainable materials economy was based on intrinsic, ultimate and transcendental values.

For instance, Vedic India evinces such an «eco-spirituality». In the Vedic world-view of life, all life in the cosmos is inter-related and interwoven ; the process of transmutation and cyclic degeneration and regeneration of life is an accepted postulate. The Man-Nature relationship is at the centre of Vedic vision enunciated through sacred incantations and articulated as rituals for repeated reminding of the need to sustain and foster the ecological balances of Nature. In the Vedic view, the sustenance of ecological balance is regarded as the first and last duty of Man, since only then the moral order of the world, *i. e. ṛta* could be sustained. The concept of *ṛta* is nothing else but the law of ecological balance as envisaged by Vedic seers. The *Bhūmisūkta* of the *Atharvaveda* (XII, 1)¹ is one of the oldest and the most important sources of information on the relation of man to his environment and his duty to preserve it. In the sixty three verses of this hymn, the seer Atharvan has presented a beautiful picture of Mother Earth, revealing the sublimity and divinity of *Bhūmi*, the all-encompassing principle of Nature and its resources. This pattern invoking the protective and sustenance power of Nature and based on communal village, integrated farming and land use practices lasted for a few millenia.

But the traditional model, which was entirely woven around dharmic life, has been progressively superseded by the modern anthropocentric attitude of entirely unrestrained exploitation involving a philosophy of utilization, objectification and appropriation, based on instrumental, proximate and existential values. This is a time when human beings have started making use of Nature, instead of holding it sacred and inviolable. All sacred and ecological values are being reduced to production categories.

1. For a detailed study of this hymn of *Atharvaveda*, see Sashi Prabha Kumar, *Facets of Indian Philosophical Thought*, Delhi: Vidyandhi Prakashan, 1999, pp. 56-69.

Communities values of guardianship of natural resources, obligations to ancestors, posterity and spirit are being steadily eroded. The diversity and interdependence of species and integrity of planetary ecosystems are being destroyed by the profligate human approach of mining nature's capital. The more educated and developed the country, the higher its development index, the more unsustainable its style of production and consumption, the higher its carbon foot imprint. There is an unprotected and unequal flow of knowledge and resources from gene rich countries to capital rich countries, from rural to urban regions, from the unconnected poor to the connected rich, across Internet. Genetic uniformity is being promoted through hybrid and mono cultural crops, ignoring the danger of such interdependence in case of blight or an epidemic. One quarter of the human population consumes four fifths of the world's resources, two fifths of its food resources, 40 % of its annual net photosynthesis production. The collective right to unfixed ideas, held by majority of humanity in rural hinterland, is being replaced by individual, intellectual property right to fixed expressions. In consequence of the following erosion of human knowledge, skill, memories and natural resources, humanity is hastening its own destruction, without the benefit of a comet shower, nuclear winter or a geological cataclysm. The fact is that we can be law-abiding, peace-loving, tolerant, inventive, committed to freedom and true to our own values and still behave in ways that are biological suicidal.

The one question one must raise appears to be : What is the purpose of development and of mastery over matter ? The truth, deep down, is that material development allows us to save labour and time for spiritual growth. Alas, quite on the contrary, we have become life-long slaves of workings habits, material comfort and artificial needs. We are so very busy without even reflecting upon what we are busy about ! Life is being lost in living, wisdom in knowledge, knowledge in information, and exchange value is being placed over use value. All the while we gladly float adrift in the inflated balloon of the ego, flying over the mythical landscape of our achievements.

Past solutions have not worked. We need new ideas, new techniques and new forms of social organizations. The world can be redeemed only by redeeming the character of man and this is possible only if ecological thinking, instead of being confined to the plane of expediency and segmental knowledge, delves deep into the integrative wisdom of both the philosophical thought and the religious sensibility.

The ecological concern of the relationship between man and nature has passed through two stages :

1. Preservation of Natural resources. There are again two views about the preservation of natural resources :

a. Utilitarian Conservation : According to this idea, the natural resources should be used for the « greatest good, for the greatest number and for the longest time ». In this view, man is the central point of the universe, the purpose of saving forests is not because they are beautiful or because they shelter wild creatures but only to provide homes and jobs for people.

b. Biocentric Preservation : It emphasizes that nature deserves to exist for its own sake, regardless of its usefulness to humans.

2. Environmentalism : It is concerned with the entire environment built as well as natural and emphasizes upon the links between science, technology and society as well. It aims at promoting a sense of interdependence amongst all the elements of creation.

What is the present state of the ecological thought ? In the last decades, the intellectual polemic has been raging between two most original thinkers who both employed the comparative method to understand societal collapses. The results of the historical investigation they conducted can be summarised briefly²:

- Joseph Tainter, American anthropologist and historian (professor at Utah State University), in his best-known work *The Collapse of*

2. These two summaries are based on Wikipedia.

*Complex Societies*³, examines the collapse of the Maya civilization and other Meso-American civilizations, and of the Western Roman Empire, in terms of network theory, energy economics and complexity theory. Tainters argues that sustainability or collapse of societies follow from the success or failure of problem-solving institutions and that societies collapse when their investments in social complexity and their « energy subsidies » reach a point of diminishing marginal returns. He recognizes collapse when a society involuntarily sheds a significant portion of its complexity. Societies become more complex as they try to solve problems. Such complexity requires a substantial « energy subsidy » (meaning the consumption of resources, or other forms of wealth). When a society confronts a problem, such as a shortage of energy, or difficulty in gaining access to it, it tends to create new layers of bureaucracy, infrastructure, or social class to address the challenge. In Tainters's view, while invasions, crop failures, disease or environmental degradation may be the apparent causes of societal collapse, the ultimate cause is an economic one, inherent in the structure of society rather than in external shocks which may batter them : diminishing returns on investments in social complexity. Tainter musters modern statistics to show that marginal returns on investments in energy, education and technological innovation are diminishing today. The globalised modern world is subject to many of the same stresses that brought older societies to ruin (for instance, the United States have dramatically increased their production of shale oil, but its extraction by fracking or by hydraulic fracturing is more polluting). So, Tainter has focussed on the energy-complexity relation in manmade systems.

- Jared M. Diamond, American biologist and geographer (professor at University of California), has written *Collapse : How Societies Choose to Fall or Succeed*⁴, a book dealing with societal collapses involving an environmental component, and in some cases

3. Joseph Tainter, *The Collapse of Complex Societies*, Cambridge University Press, 1988.

4. Jared M. Diamond, *Collapse : How Societies Choose to Fall or Succeed*, Viking Press, 2005.

also contributions of climate change, hostile neighbors, and loss of trading partners, and the society's own responses to its environmental problems, for instance its failure to adapt to environmental issues.

J. Diamond lists 12 environmental problems facing humankind today :

1. Deforestation and habitat destruction
2. Soil problems (erosion, salinization, and soil fertility losses).
3. Water management problems.
4. Overhunting.
5. Overfishing.
6. Effects of introduced species on native species.
7. Overpopulation.
8. Increased per-capita impact of people.

Further, he says four new factors may contribute to the weakening and collapse of present and future societies :

9. Anthropogenic climate change.
10. Buildup of toxins in the environment.
11. Energy shortages.
12. Full human use of the Earth's photosynthesis capacity.

However helpful and fruitful these two studies may be in clarifying many features of human history, they remain anthropocentric and one-sided. It is completely overlooked that when we dichotomize nature and society, it seems we can only serve the latter by doing violence to the former, and that such a state of things is at the root of evils we are facing in contemporary societies.

Nature has been transformed and harnessed. However the question is no longer how to master Nature but how to master the one who masters Nature. Kant knew that this question was the most difficult to solve... (see Kant's *Proposals for Universal Peace from a cosmopolitan point of view*, 1795) and the fact that this master does not know himself does not help its solution.

If Man were wise he would handle himself as well as the problems he generates for himself. But the pathetic irony of this present

condition is that Man has made wisdom increasingly difficult to get. Wisdom is the inward knowledge of Dharma and Dharma within one self is difficult to perceive when Dharma outside of oneself is gradually eliminated as a result of Man's impact on the environment. For instance, nature's organic cycles and ecological balance appear as a manifestation of Dharma at the micro and macro-biological level. Man's sense of what is and is not «natural» — in that sense, dharmic — depends upon whether Man's environment is natural or not ; it depends upon the possibility of living in *psychic osmosis with nature*. A balanced physical environment which provides you with the right models and criteria of sound environmental cycles and interactions is needed. Once nature is replaced by man-made environment, the intuitive criteria provided by nature, which were spontaneously incorporated in Man's life pattern, are lost. So, without Dharma there is no ecology ; the delicate, self-regulating and self-maintained balance of energetic cycle cannot be preserved. The drama of the present time is that we have acquired and increased power of action in the world without correspondingly increasing our perception of Dharma.

Unlike the sea or the air, which cannot become property as they cannot be bounded or limited (unless they are put in containers !), the Earth by definition can be. But the origin of the act of appropriation is anything but neutral, as it includes in its very definition the exclusion of anyone else from possessing or using the same thing.

Such an act of appropriation of the Earth is illustrated by the French philosopher Jean Jacques Rousseau in *A Discourse Upon The Origin And The Foundation Of The Inequality Among Mankind* (Second Part, 1755):

“The first man, who, after enclosing a piece of ground, took it into his head to say, «This is mine,» and found people simple enough to believe him, was the true founder of civil society. How many crimes, how many wars, how many murders, how many misfortunes and horrors, would that man have saved the human species, who pulling up the stakes or filling up the ditches should have cried to his fellows:

Be sure not to listen to this imposter ; you are lost, if you forget that the fruits of the earth belong equally to us all, and *the earth itself to nobody* ! But it is highly probable that things were now come to such a pass, that they could not continue much longer in the same way ; for as this idea of property depends on several prior ideas which could only spring up gradually one after another, it was not formed all at once in the human mind: men must have made great progress ; they must have acquired a great stock of industry and knowledge, and transmitted and increased it from age to age before they could arrive at this last term of the state of nature. Let us therefore take up things a little higher, and collect into one point of view, and in their most natural order, this slow succession of events and mental improvements”.

In Western philosophy, some thinkers (Hugo Grotius, *De jure belli ac pacis*, 1625 ; Kant, *Doctrine of Right*, 1797) have elaborated the concept of an “originary common property” (*communio possessionis originaria*) of Earth.

Elucidating the concept of the Earth’s inappropriability, then, is not simply a question of jurisprudence, nor even of the philosophy of law. It supposes that we make explicit the anthropological conditions under which the Earth-ground becomes an individual, exclusive possession. Appropriation on the Earth falls into three categories : property, conquest and over-exploitation. We have to elucidate these three categories to give an account of the appropriation of the Earth.

The question then is this : faced with all these strategies of appropriation, isn’t the idea of inappropriability a sort of utopia ? A utopia either of a primitive age, completely lost to humanity, or of an ultimate, endlessly distant age ? How are we to think of the inappropriability of the Earth ?

In our present problem of ecological imbalance, it is necessary that we refurbish our fund of ancient Buddhist knowledge so that some integral means towards the goal of sustainable growth be achieved. In order to do so, we must change to a different level and make the shift

to the Buddhist Dharma. Buddhism reveals remarkable relevance to the shift toward a dynamic, systemic, process view of reality.

“Thou shalt not violate against life, nature or the earth” : in connection with the requirement of a non-anthropocentric ethics encompassing all creatures, or Nature as a whole, the Buddhist precept — valid for monks and nuns as well as lay followers — is to abstain from killing any living, animate being (*pāṇātipātā veramaṇī*), including even plants and seeds inasmuch as they are regarded as living, sentient beings⁵, and such a precept is occasionally supplanted or supplemented by the injunction no to injure them (*ahiṃsā*).

Now the act of appropriation of the Earth is also illustrated in the *Aggañña Sutta* (« Genesis of the world » or « History of Genesis and course of the world », *Dīgha Nikāya* III, 84-95), a popular teaching found in the *Dīgha Nikāya* and the *Jātaka* and recurring in the *Mahāvastu* and other postcanonical writings. Illustrating the dynamics or law (*dhamma*) by which things co-arise, this fanciful genesis story could serve as allegory, for it presents self, society and world as evolving by interaction and progressive differentiation.

In the beginning of a world cycle neither beings nor their world have solid form or distinctive features. In the Golden Age, men were made of mind, fed on rapture, and travelled through air. Weightless, luminous, and identical, the beings waft about over a dark and watery expanse. When a frothy substance appears on the waters, they taste it. It is delicious, and for its sweet, honey flavor a craving arises. As the beings consume more and more, both they and their world change, become more distinct. The beings begin to lose to the world their identical self-luminance : sun and moon and stars appear, and the alternation of day and night. The beings begin to solidify and vary in appearance. Pride and vanity arise as they compare

5. Lambert Schmithausen, *The Problem of the Sentience of Plants in Earliest Buddhism*, Tokyo : The International Institute for Buddhist Studies, 1991 ; *Buddhism and Nature*, Tokyo : The International Institute for Buddhist Studies, 1991 ; *Plants in Early Buddhism and the Far-Eastern Idea of Buddha-Nature of Grasses and Trees*, Kathmandu : Dongol Printers, 2009.

themselves in beauty... and the savory froth vanishes. The beings bewail its loss : “ Ah, the savor of it !”. In its place, on earth that is now firmer, mushroomlike growths appear of comparable tastiness — only to disappear as the creatures fatten on them and change. The mushrooms are replaced by vines and these, in turn, by rice. With every new growth the beings crave, eat, grow more solid and diverse. At each stage their use of the environment modifies it, gives rise to more solidity and new forms of vegetation, and with such usage they themselves alter, developing more distinctive features. In this interaction both creatures and world progressively differentiate, each gaining in solidity and variety. When it first grew, the rice was without husk or powder and, when gathered, would grow again in a day. A lazy one, to save effort, decided to harvest two meals at once. Soon beings are harvesting for two days at a time, then for four days, then eight. With this hoarding the rice changes : a husk appears around the grain and the cut stem does not grow again but stands as stubble. So the people divide and fence the land, set boundaries to ensure their source of food. Soon a greedy one takes rice from a neighboring plot. Admonished by the others, he promises to refrain, but he takes again, repeatedly. Since admonishment is of no avail, he is beaten. In such fashion, with the institution of private property, arise theft and lying and abuse and violence.

Soon such acts are so rampant, the scene so chaotic, that the people decide to select one of their own to act on their behalf — “ to be wrathful when indignation is right and to censure what rightly should be censured” — and to receive in return for this service a portion of their rice. So arises the *Mahāsammata*, the “ Great Elected One”, and with his rule order prevails. Such is the origin of kingship and the *Kṣatriya* class, and so also evolve, by the assumption and differentiation of roles, the other major divisions of society.

The Buddha’s teaching that suffering stems from craving places a high value on self-restraint and low consumption. The traditionally mendicant way for the *bikkhu* underscores the conviction that freedom derives not from wealth or the satisfaction of appetite, but resides in

nonattachment, in liberation from the restless greed to possess and consume, and from the objects, thoughts, and habits that stimulate that wanting. Private acquisition, furthermore, are dangerous to the extent they express and exacerbate the notion of “mineness” (*mamattā*) and thus encourage the assumption of an “I”, a permanent, personal self who possesses. In the *Agāṇṇa Sutta* the institution of private property is presented as the occasion of the arising of theft, mendacity, and violence. As an antidote to attachment and the delusion it engenders, the Buddha preached generosity (*dāna*) and organized a community in which private property was renounced, all goods shared in common. From this Buddhist perspective, the goal of modern advertising to induce the sensation of need and the desire to acquire is immoral, as, for that matter, is an economic system dependent on an ever-widening public consumption of nonessential commodities and artifacts.

In the perspective of the Buddha’s core teaching of dependent co-arising, self, society, and world are reciprocally modified by their interaction, as they form relationships and are in turn conditioned by them. Within that mutual causal perception of reality one is not a self-existent being ; neither nature nor the institutions of society are eternally fixed. They are mutable and they mirror our greeds, as does indeed the face of nature itself.

When the human species sees that it is destroying other species and disrupting the natural balance, it is consciously aware of its violation. When such natural guilt is not faced, there are other mechanisms that must be employed. Many of mankind’s problems result from the fact that man do not accept the responsibility of his own consciousness. It is meant to assess the reality that is unconsciously formed in direct replica of his thoughts and expectations. The exterior dimensions are replicas of interior personal ones. Man not only forms the structure of his civilizations and social institutions through the transference of beliefs, thoughts and feelings ; but in this natural exchange he also helps on quite intimate levels in the “psychic manufacture” of the physical environment itself, with all of its great sweeping variety

and yet seasonal stability. Medicine men may do a rain dance. They understand the innate relationship that exists within all portions of nature. Consciousness is wedded with matter and any of its experiences is physically materialized through that interaction. Man do not simply react to the weather. Man helps form it. Catastrophies, such as earthquakes or floods, are not perpetuated by certain elements of nature against other portions of itself. It must be granted that each man indeed participates in the creation of each thunderstorm, each earthquake or each flood.

In the perspective of mutual causality the self appears as a fluid, changing structure, formed through interaction between the world it experiences and the codes by which it interprets this experience. Within the Buddhist and cybernetic perspectives on mutual causality⁶, the frame of reference is twofold : on one hand, the intricate, unbroken web which interconnects our lives with the natural environment and with other beings, and, on the other, the reciprocal impact on consciousness of our physical conditions and activities. The very dynamics of mutual causality suggests that certain moral values are woven into the fabric of life, intrinsic to its harmony and continuity. As open systems we are in constant metamorphosis, and if with our free will we support the system's capacity for adaptation and survival, this metamorphosis involves a progressive dying to our own separateness and an increasing internalization of the needs and joys of others.

So, the ecological concern of the relationship between man and nature has henceforth to rise up to a third stage :

3. Global Citizenship : The third step of conservation has to focuss not only on particular pieces of wilderness but about the life-support systems of the whole planet. A key concept of this wave is the "sustainable development", a term introduced in the United Nations Conferences such as the "Earth Summit" held at Rio De Janeiro in

6. Joanna Macy, *Mutual Causality in Buddhism and General Systems Theory. The Dharma of Natural Systems*, Albany : State University of New York Press, 1991.

1992. Our political and economic interdependence may have progressed to a degree where collective self-awareness must manifest itself for the world as we know it to survive. The interdependence of all beings provide guidelines for effective action on behalf of the common good. But the traditional Indian ideal of “*Vasudhaiva kuṭumbakam*”, *i. e.* the whole cosmos being one single family, is even wider than the global citizenship : planet Earth we inhabit and of which we are all citizens is a single, living and pulsating entity, and the human race, in the final analysis, is an interlocking, extended family.