

# GEOGRAPHICAL THOUGHT

## A Contextual History of Ideas

*by*

**R.D. DIKSHIT**

*Formerly, Professor of Geography,  
Maharshi Dayanand University, Rohtak*

**PHI Learning** Private Limited

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## **Geography and Environmentalism**

### **MAN-NATURE RELATIONSHIP**

The relationship between mankind and the physical environment is a theme that has held the attention of man from the beginning of civilization. During the premodern phase, the general assumption the world over was that nature sets the stage for human development, though the approach to nature-man relationship varied from one society to another, depending upon whether nature of the habitat was friendly and, therefore, benevolent or the natural conditions were hard from the viewpoint of the mechanics of living. The former case is exemplified by wet tropical and subtropical environments of old cultural lands of South and East Asia—the traditional realms of Chinese and Indian cultural influence. In these civilizations, Nature was viewed as the gift from the benevolent Almighty God, so that it needed to be preserved: It was necessary to develop a state of peaceful coexistence with nature so that in the process of their use by mankind, the resources of the natural environment were not disturbed beyond the natural capacity of the environment to replenish itself. The indigenous philosophies and religions were geared to the maintenance of the ecological balance in nature: Man was part of nature (like the rest of sentient nature—the plant and animal kingdom). The case of the Hebrew and Greek cultures which grew through a process of hard struggle against an unfriendly and harsh environment was altogether different. Nature had to be vanquished, to be conquered and won over, in order to clear the path for cultural development. Progress depended on changing the character of land through human ingenuity, by irrigation and the use of fertilizers, for instance, in order to make it yield the required resources for progress. Thus, under the European cultural realm, “the environment came to be seen as a metaphor for triumph over struggle, for dominant forms of social management over the weak, and for the production of capital and resource surplus as an essential prerequisite to the class domination that was necessary to allow society to progress” (O’Riordan, 1989, p. 78). This was the view of Nature-as-usufruct, a view that (in the words of O’Riordan) was used as an excuse for persistent exploitation of the weak, whether the weak was the natural world or the lesser mortals e.g., in the overseas colonies in the tropical lands (Asia, Africa, and Latin America).

Nature-as-usufruct is still the dominant view in all industrial societies the world over, who hold on to essentially an "I-thou" perspective—an essentially conflictual view of the man-environment relationship. It is rare to come across such a conflictual perspective in man-nature relationship in the case of marginal cultures occupying marginal environments and possessing rudimentary technologies. They had not, unlike in India and China, worked out any elaborate philosophy (it could not be possible given the stage of development) but their propensity for disturbing the natural environmental balance through excessive use of natural resources was checked by intricate social institutions that rewarded communal sharing and punished self-indulgent expenditure.

### **The Deterministic Perspective**

Geographers' interest in the study of man-environment relationships got a new lease of life after the publication of Darwin's *The Origin of Species* (1859), owing to the underlying emphasis on ecological relationship between an organism and its environment in the evolutionary thesis, and the notions of organization, and struggle and selection. The Darwinian theory gave new respectability to geography as a field of learning. The fact that the Darwinian theory of biological evolution through selection and struggle in which the fittest survived appeared to offer a scientific justification for European domination of the lesser mortals in Asia, Africa and Latin America. Geography as the science of environmental relationships became the vehicle for putting forth this justification for European imperialism in the second half of the nineteenth century. Indeed, many modern geographers (e.g., Hudson, 1977; Stoddart, 1986) have argued that the rise of geography as a university-level discipline in the last quarter of the nineteenth century owed a great deal to its usefulness in the task of justifying the current phase of European imperialism in terms of the varying natural qualities and abilities of the different "racial" groups. The justification was carried out through disciplinary focus on environmental determinism. The line of argument pursued was: Differences in physical and mental abilities of different societies, and in the level of their cultural and economic potential and achievement, were caused by the regional differences in the quality of natural environment, so that European domination of people in other lands was natural and in line with the wishes of the Creator. The inherent competitiveness and aggression in capitalism and imperial expansionism were justified as the natural pattern of behaviour for any species in terms of the Darwinian thesis. Indeed, English philosopher Herbert Spencer advocated the application of the Darwinian theory to the study of human society—a line of thought that came to be known as social Darwinism of which the best advocate in geography was German geographer Friedrich Ratzel. This was the most popular theory of geography pursued the world over during that period of European domination.

As noted in the discussion on the rise of political economy perspective in human geography, such a deterministic perspective on man-environment

relationships was opposed by the anarchist Russian geographer Kropotkin (1924). He agreed that man's interaction with nature generated certain human qualities, but he was opposed to the social Darwinist view of what these qualities were. As against the social Darwinist view that man-nature interaction naturally led to qualities of competitiveness and aggression, Kropotkin argued in favour of the qualities of cooperativeness and sociability, though his was almost a lone voice in the wilderness; environmental determinism in geography reigned supreme.

According to Glacken (1956, 1967) three different modes of nature-society or man-environment relations have permeated the history of Western thought:

- Humanity in harmonious relationship with nature;
- Humanity as determined by nature; and
- Humanity as modifier of nature.

The man as modifier and conqueror of nature view has dominated modern thought though the other two perspectives have by no means been completely absent. The first forceful attack on the tenets of environmental determinism in modern geography came only in the late 1920s from Wittfogel (1929) who denied the thesis of direct natural causation of inherent human characteristics. He maintained instead that human labour organized in different social forms moulded nature into the different material bases for economic development of regional societies. This is what created the distinctive regional cultural traits, rather than the environment *per se*. Thus, man made himself: Societies are human creations rather than natural/environmental creations. Wittfogel was, however, not opposed to the idea of natural forces being a potent influence in man's life upon earth. In particular, he drew attention to the climatically determined need for irrigation which in the East (India and China) gave rise to a line of social development that was greatly at variance with the one followed in the rainfed agriculture pursued in the West, giving rise to entirely different kinds of civilizations in the two cultural realms (Wittfogel, 1957). But, conventional geography tended to stand firm in its support of the current social order, and this was one of the reasons for its widespread adoption in schools and universities.

### **The Possibilist Perspective**

An alternative view of environmentalism in geography around the beginning of the twentieth century found wide acceptance in France according to which the physical environment offers opportunities for a range of possible directions of development, and it depended on human initiative as to which particular direction of progress was chosen. This basic premise that the environment presents a range of opportunities, and it is for human groups in particular places to choose between them, came to be known by the name of possibilism. This view is generally identified with the French school of human geography that developed around the turn of the twentieth century

under the leadership of Vidal de la Blache. The possibilistic view of man-environment relations developed by Blache represented a middle course between the views of the French sociologist Emile Durkheim (who proposed that human geography should be reduced to the study of *social morphology*, comprising, "the mass of individuals who comprise the society, the manner in which they are disposed upon the earth, and the nature and configuration of objects of all sorts which affect collective relations") and the German geographer Friedrich Ratzel.

Vidal rejected Durkheim's view of human geography as social morphology, and insisted instead that man "joins in nature's game" and the external environment (*milieu externe*) was a partner not a slave of human activity. On the contrary, he shared Ratzel's view that society ought not to be left "suspended in the air", that it must be placed against the environment in which it grows; but he squarely rejected any notion of environmental determinism associated with the Ratzelian view of geography as propounded by his American disciple Ellen Churchill Semple (1911). He was emphatic that "nature is never more than an advisor", and that man's interaction with the external environment revealed the human being as "at once both active and passive". The Vidalian approach to the environment followed a middle course between extreme (radical) possibilism and strict environmental determinism. Blache rejected the view that society and nature stood out as adversaries in the man-environment confrontation. For him, man was part of nature ("living creation") and, therefore, its most active collaborator. The concept of *genre de vie* (way of life) was Vidal de la Blache's formulation to resolve the man-environment duality, in that the life styles of the people in particular locales revealed that physical geographical factors and human ingenuity collaborated to create distinctive *genre de vie*.

French historian Lucien Febvre supported Vidal's view in his famous phrase "there are not necessities but everywhere possibilities; and man as master of these possibilities is the judge of their use" (Febvre, 1932). This was a modified view of the Vidalian perspective, since in its essentials the Vidalian view of possibilism "could still legitimately be regarded as a qualification rather than a negation of environmental determinism" (Gregory, 1994). As Gregory points out, the possibilist concept became so distorted by the 1950s that it seemed to pose a threat to the scientific status of geography as an autonomous discipline. In the first place, critics argued that scientific laws are essentially deterministic, so that in order to become a branch of scientific learning, human geography required laws "similar in stringency to those of physical science" (Martin, 1951). This was countered by the view that the traditional emphasis in geography on *contingency* (something liable to happen as an adjunct to something else) and *probabilities* was consistent with the concept of modern physics (Jones, 1956; Lukermann, 1965). Secondly, the distinctiveness of geography was defined in terms of the relationship between society and nature in which the physical "foundation must in large part control the superstructure" (Spate, 1957). Spate suggested the concept of "probabilism" as compromise between

extreme positions of environmental determinism on the one hand, and radical possibilism on the other. Probabilism held the view that although the physical environment does not exactly determine human actions, it does exert considerable influence on human action so that certain responses are more likely than the others. Human action was a combined response to natural environment interacting with technological advance of the society under reference. The environment offered a range of probable choices but only one of these could become actuality (or possibility). Which particular probability shall become actuality depended on the stage of technological advance.

The concept of probabilism was closely parallel to the neo-environmentalist view of *stop-and-go determinism* developed by Griffith Taylor (1951). Taylor maintained that it may be that the well-endowed parts of the world offer a number of different possibilities for making a living; but in some nine-tenths of the earth's land area, nature speaks out clearly— "this land is too dry, or too cold, or too wet, or too rugged". He wrote that the settlers who fail to heed this nature-given limitation must face disaster. According to Taylor, the role of nature was far from crudely deterministic, but the environment was nevertheless a potent force in human action which man could ameliorate but not escape. It is like the case of the flow of traffic on a busy road. The traffic policeman cannot wish away the traffic that must necessarily flow. All that he does is to regulate the traffic through the temporary stop-and-go method. The human agency, through the use of technology, can modify the force of nature but it cannot escape it. The role of human agency is similar to that of the traffic regulator.

### **NATURE-AS-NURTURE: THE CURRENT VIEW OF MAN-ENVIRONMENT RELATIONS**

Although an old perspective on man-environment relationship in the East, the nature-as-nurture view in the West caught the attention of academics and social activists only in the 1960s as an antidote to the long prevailing view of nature as usufruct; though (as O'Riordan, 1989, p. 79, recalled) "In essence, ever since it broke clear of pure subsistence economics, ... human society has always recognized its capacity to destroy the environs as greater than its ability to restore the damage within a manageable period of adjustment". The central objective of the current view on environment is "to place humankind in its ecological setting, simply as one of the sentient species". It aims at human well-being, and is focused on the belief that this is possible only if nature is accorded its rightful place as a friendly partner in the process of development and growth. It is built upon a deep faith that survival of mankind is dependent on the survival of a healthy and ecologically balanced earth environment. The debate on environmentalism revolves around two fundamental issues: First, resource exploitation is inevitable for human survival; and that in this process, it is inevitable that man shall take more than he returns. This leads to entropy—the steady

increase in energy dissipation (and chaos)—that makes it progressively more difficult to maintain the organs of social stability, so that eventually society may begin to spend more effort in maintaining order than it generates by way of new energy and wealth. It is also obvious that the very process of competitive exploitation is a class-dominated process: The rich and resourceful always have the upper hand. The second issue revolves around the hope that there is hope for a better future based on the faith that ultimately the moral fibre in human nature shall prevail leading to greater concern for the survival of the species as against narrow personal gains.

As O'Riordan wrote, "Environmentalism is a collage of values and views of the world, a general patterning of predispositions, being first and foremost a social movement, though with political overtones", so that "green politics" is currently in ascendance in Europe. It is based on the philosophy that "embraces Earth-centredness, a sense of altruistic communalism, non-violence, and a concept of time that is almost timeless" (O'Riordan, 1989, p. 80). In the 1970s, green politics in the West had moved from the state of voluntary environmental pressure group to the mainstream party politics, in that there are now open debates on environmental implications of governmental policies in diverse areas. The promoters of green politics view themselves as the "people of the old world trying to create a new one" (Petra Kelly's foreword to J. Porritt's *Seeing Green*, 1984). According to Porritt, greenness is the politics of ecology and life interests, against the current politics of exploitation and class interests. It is the politics of Earth-respectfulness and people-caring. But with the adoption of greenness as a manifesto in mainstream European politics, the advocacy of greenness in politics has assumed a "predatory purpose" showing disposition to exploitation with a view to political gain.

### **The Current Meaning of Environmentalism**

Modern writing on this subject distinguishes between two alternative perspectives on environmentalism: The conservative view of society-nature relationship wherein nature provides a metaphor for morality and a guide to rules of conduct; and the radical or manipulative perspective in which the spirit of competition in skill dictates the terms of ethics and conduct. God as the personification of the unknown, the unknowable, and the mysterious is a common metaphor in both. This is considered important because man is supposed to possess a sense of responsibility to nature (Creation) in seeking guidance regarding how to act on the Earth. It becomes the vital restraining mechanism in avoiding the destructive power of societal exploitation of resources.

The essential difference in perspective between the conservative or maturing and the manipulative view of environmentalism lies in the conceived position regarding the relationship between God, Nature, and Man. Under the conservative mode of thought the order of precedence was: God-Nature-Man, that is, God first made the Earth (nature) and then man. This was the original Hebrew view of Genesis later adapted by the

nineteenth century European Romanticists. According to this view, therefore, human morality was shaped by the right of nature—environmental conservation and maintenance of ecological balance in nature. Man was, under such a perspective, supposed to live with nature, preserve the environment, avoid wastefulness and recognize the essential unity of sentient existence. In the manipulative perspective on the environment on the other hand, the order of precedence is: God-Man-Nature, so that it is believed that the Earth (nature) was created for human exploitation; man was primary and nature secondary, so that man created his own standards of morality. The conservative mode of thought and practice is essentially *ecocentric*, as contrasted to the manipulative perspective which may be described as *technocentric*. "Environmentalism seeks to embrace both worldviews: indeed it is the constant interaction between these positions that gives environmentalism its special dynamic qualities" (O'Riordan, *op. cit.*, p. 85).

The technocentric perspective on the environment is essentially a usufruct perspective: it is *interventionist* in ethos and approach, based on faith in the application of scientific skill, market operation and managerial ingenuity. A milder version of this approach is *accommodative* in man's relations to nature, and is based on faith in the adaptability of societal institutions and approaches to assessment and evaluation with a view to accommodating environmental demands. The ecocentric perspective is based on the belief that

the Earth has her own law, a natural law in the original sense of these words, deeper than human enactments and beyond repeal.... Who treats her well receives blessings; who treats her ill suffers privation, for she gives with even-handed measure. Earth forgives but only to a certain point, only until the balance tips and then it is too late (Hughes, 1983, p. 56, cited in O'Riordan, *op. cit.*).

In the current literature on environmentalism, such a faith is identified as *Gaianism*—a term derived from the Greek goddess Gaia, the nurturing mother figure from whom all sustenance on the Earth was derived. Gaia's daughter Themis was the Goddess of Justice. Under the Greek concept, justice was equated with retribution (i.e., reward for those who treated the environment well and punishment for those who treated it ill through over-exploitation and thereby disturbed the ecological balance). The scientific view of Gaianism is presented by the geochemist James Lovelock (1979). According to this view life upon the Earth is manipulated by living organisms which through their naturally coordinated interaction help smooth out disturbances in the atmosphere, lithosphere and hydrosphere so that a complicated life-sustaining state is maintained on the earth surface. The operative aspect of Gaianism is faith in *communalism*, that is, faith in the cooperative capabilities of societies to establish self-reliant communities based on renewable resource use and appropriate technologies.

A closely akin environmental concept is the concept of deep ecology developed by several Scandinavian, Australian and American thinkers (Fox, 1984; Devall and Sessions, 1985; Tobias, 1985). The philosophy of deep ecology



provides a justification for sacredness of life upon the earth, and promotes equality of, and respect for, all sentient beings in terms of their essential interdependence for survival and their origins from the same cosmic force. For adherents of deep ecology, self-realization for human beings consists in recognizing the inherent solidarity with the totality of life forms constituting nature. Green movements in various countries in the West, as also the Animals Rights campaigns are the manifestations of this kind of thought.

Indian philosophy has, from the beginning, recognized the basic unity of man and nature. For Indian thinkers man has always been a part of nature, and there has been a basic faith in the cosmic brotherhood between man and other species in the plant and animal kingdoms, so that one of our ancient *rishis* was Shukdev (parrot god), one of our mythological gods was Varah (boar), not to mention the most popular God form, Hanuman (the monkey—*vanar-avata*r). The deep ecology ethos has been an inherent part of the Indian way of life and thought. Compassion for non-human forms of life, including non-violence and special attention to the cow, have been its manifestation in the day-to-day life of country folk, and the Hindu tradition had enjoined special blessings for those who preserved the environment through planting trees and building water-storage tanks for public use. The various environment protection movements in India, beginning with the *Chipko* Movement in the U.P. Himalayas, are recent manifestations of this old tradition made necessary by destabilization of the fragile environment in the relatively marginal lands. Mahatma Gandhi was—in terms of the living practitioner of the dying tradition—a true Gaian or Deep Ecologist. The *Chipko* and other movements owe a great deal to the Mahatma's principles. The main environmental movements of various kinds in India include: *Chipko* and related movements for forest life and environmental protection in Uttarakhand (the U.P. Himalayas), the "Save Narmada" movement in Madhya Pradesh and the protest movements associated with the construction of Narmada Sagar Dam, and the Sardar Sarovar Dam in Gujarat, and the Silent Valley Movement in Kerala, the protection of environment against bauxite mining which threatens tribal life in the Gandhamardan Hills in Orissa, and the *Appiko* Movement for the protection of the environment in the Western Ghats. (Brief descriptions of these and some others are given in Karan, 1994.)

### **The Concept of Sustainable Development**

The concept of sustainable development, made popular through the 1987 report of the World Commission on Environment and Development, presents an intermediary position between the somewhat contrasting perspectives of the developers and the ecology-minded environmentalists. According to the World Commission's report, sustainable development stands for "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs" (p. 43). It is based on the concept of wealth creation attuned to nature's capacity to renew and replenish resources; it is rooted in the utilitarian concept of

resource-management, and it insists on a synthetic view of the complex interrelationship between the physical and the social, and combines an ecological basis to economics and local self-reliance. However, such a perspective, in order to succeed, calls for a comprehensive shift in the distribution of power in society and, as such, wholesale changes in institutional structure which is a tall order. These considerations do not, however, stop the sustainability and development advocates. The idea has, however, come under attack from those who perceive ultimate limits to growth, and view further development (in terms of economic growth) and sustainability as mutually exclusive propositions. The idea has also been criticized as “a convenient formula used to maintain the notion of growth and development as a way of avoiding or finessing intractable questions of distribution” (Emel, 1994).

As O’Riordan wrote, a distinction must be made between sustainability and sustainable utilization. *Sustainable utilization* is the term used by the International Union for the Conservation of Nature (1980) to denote a rate of resource uptake which equals the rate of renewal and replenishment. Although it is possible to increase yield by technological manipulation, the basic principles of replenishable extraction have to be honoured. *Sustainability*, on the other hand, incorporates ethical norms in the Gaia tradition, including emphasis on taking due consideration of the rights of the future generations of all living species. Sustainability, therefore, is “a reformist notion in the [neo-Marxist] radical tradition of opening up institutions of economic investment and resource development to a far greater sense of Gaian accountability” (O’Riordan, 1989, p. 94).

### **Geography and Environmental Education**

Right from the days of George Perkin Marsh geographers have been involved in environmental protection and the creation of a concerned attitude towards the environment. The book, *Man’s Role in Changing the Face of the Earth* presented by the followers of Sauer in his honour, was part of this continuing interest. As Mikesell (1974, p. 2) wrote: “developments in geography have been such that the several phases of national preoccupation with environmental problems have not produced a general awareness of interests and skills”. As part of such a realization on the part of the geographical profession in the United States, the Commission on College Geography of the Association of American Geographers (AAG) had set up a Panel on Environmental Education, and established a Task Force on Environmental Quality which reported (Lowenthal, et al., 1973) that geographers were best qualified to function as leaders in environmental education in view of: (a) The breadth of their training which imparts them the ability to handle and synthesize material from a wide range of sources, (b) The geographers’ view of causation as a multi-lateral and complex phenomenon, (c) The geographers’ training in tapping or deriving information from diverse sources, (d) Geography’s focus on the spatial distribution of phenomena

on the earth surface, and (e) The established tradition of environmental study in the discipline.

More recently, Stoddart (1987) underlined that the reason for the geographers' failure to contribute to the current debate on environmentalism in a meaningful way has arisen from the fact that they have failed to recognize what, according to Stoddart, should be "the central intent and indeed self-evident role in the community of knowledge", that is: the study of "Earth's diversity, its resources, man's survival on the planet". Such a role for geography calls for a unified discipline—both physical and human—in which our task as a profession should be: "To identify geographical problems, issues of man and environment within regions—problems not of geomorphology, history or economics or sociology, but geographical problems: and to use our skills to work to alleviate them, perhaps to solve them" (Stoddart, 1987). For Stoddart, the geographers' focus on research in topics like the geographical influences on the cinema, or the distribution of fast food outlets, and such other esoteric topics of little relevance to societal problems of the day are wasteful diversions—unnecessary fiddling with trifles. His message to fellow geographers is loud and clear: "Fiddle if you must, but at least be aware that Rome is burning all the while". The current position in the discipline is that:

While bridges have been built across the human-physical geography interface, there has been no integration of the study of the physical and social processes; for human geographers their links with other social scientists are much stronger than environmental scientists (Johnston, 1991, p. 209).

Through its input in environmental education—creating informed attitudes about the environment, and the ways and means of preserving the balance of nature—geography has the opportunity for contributing in the all-important task of preparing the students as responsible citizens. It is an area of study through which geography can be projected as the integrated discipline focused on the study of the earth as the world of man; but this would require considerable effort at updating our physical geography syllabi with much greater input of science. (For a comprehensive statement on geography and teaching of the environment, reference may be made to Dikshit, 1985, reproduced in Dikshit, 1994.)

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