# PRAXIS AND THEORY OF ENVIRONMENTAL MARXISM

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Abstract: Ecological Marxism is distinct from the environmentalists whose main focus is on the wrongness of anthropocentrism. Even with their diverse approaches, the latter have produced a common portrayal of the autonomy or integrity of nature. Thus, their stress on the debunking of the centrality of human beings eventually emphasized on the gaining of new ways of understanding nature. Ecological Marxism, however, critique of capitalist production followed Marx's and accumulation. As could be expected, the eco-Marxists will no longer just propose a new way of understanding nature, but also a new praxis in dealing with nature—one that stresses on human development as co-evolving with nature. This environmental praxis which takes a socialist-economics turn, has followed a leftist (Red) course but may also have arrived at the intersection of the Green Movement. Through this, the ecological praxis and theory of Marx and his partner, Engels, has come to the fore.

*Keywords*: Alienation, Ecological Marxism, Metabolic Rift, Metabolism, and Treadmill of Production.

### 1. Introduction

Human activities involve the use of the natural environment; Marx called this 'metabolism' the energetic exchange between society and nature through labour. When people work and

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produce things, nature is altered or disturbed; when people consume things, nature is drawn in and transformed; when people interact with one another, nature is implicated. In one way or another, there is metabolism as human beingss adapt themselves to or exploit their environment.

Cave people and nomadic groups held on to simple tools to fend for their sustenance; simple communities of antiquity may have already settled down along riverine or coastal areas but their technologies were far from threatening the integrity of nature. In antiquity, humans faced innumerable threats and insecurities at the vast expanse of the still uncharted face of nature. As agricultural societies invented the technology for ploughing, they had great opportunities to generate surplus of resources. This also allowed the initial experience and perception of themselves as not only being part of nature but also exploiters of nature. Greater confidence in human capacity followed. This led towards anthropocentric attitudes which were further reinforced by religions of the Mediterranean basin like Judaism, Christianity, and Islam. These religions consider human beings as God's special creatures who occupy a central place in the whole of 'creation.'

The shifting of work and production from land to factory capitalist during the modern industrialization vears (Productivity years that began in 1750s) required the shift of energy source from muscle/animals/water to machines/fossil fuels. Larger areas were explored and exploitation of the environment expanded to include the underground, rivers, oceans, and the wilderness. Moderns understood themselves as promoters of progress with their exploitation and utilization of natural resources. Later scientific Baconian knowledge provided a philosophical legitimizing of the anthropocentrism that lies behind this treatment of nature. Such knowledge was further strengthened by Descartes' view of nature as a human extension.

Through the Productivity years, more diverse living beings were affected. Toxic wastes, acid rain, and greenhouse gases (and later, radioactive wastes) wreaked havoc on the natural environment. In their adaptive and exploitative activities, people have habitually interacted with their natural environment on unequal terms – treating it mainly as the storehouse of resources and the dumping ground of wastes; as such, nature is treated as extension and utility. From this way of treating nature as source (of raw materials for production) and sink (for disposal of wastes, by-products, and trash), the issues of nature's depletion and degradation have come about.<sup>1</sup>

An outcome of dealing with environmental problems is the rise of environmental thought that either mitigated or challenged the habitual source-sink treatment of nature. Practice (as green activism) and theory (as green theory) have developed and evolved as people preoccupied themselves with issues arising from the complex relations between social organizations and activities, on the one hand, and the natural environment, on the other hand. Thus, both environmental practice and theory were born out of people's confrontation with the twin problems of depletion and degradation.

Various forms of environmental thought, including ethics/philosophy, have found themselves moving along, if not together with, practices that evolved through the dynamic green

<sup>&</sup>lt;sup>1</sup>For example, the peasantry in England was eventually driven out of their fields by the inroads of capitalism in the form of sheep's wool production. Thousands of acres of land which used to feed people had been converted into sheep's pasture. England's transformation into capitalism, therefore, was caused not just by the town's factories but also by country-side commerce. The profit principle rooted in private control over property did the trick in both forms. As soon as the royalty was emasculated after the Revolution of the 17<sup>th</sup> century the barriers to the enclosing landlords were removed and "prepared England for rule by a 'committee of landlords', a reasonably accurate if unflattering designation of Parliament in the eighteenth century." Barrington Moore Jr., Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World, Boston: Beacon Press, 1966, 19. The retention of power by the upper classes did not, however, prevent capitalist influence to penetrate and transform the countryside which already began long before the Civil War. Money and no longer birth was to form the basis of the aristocracy. Parliament became an instrument of landed capitalists.

activism years. Ethical/philosophical theories have evolved along with the other disciplines such as Economics, Psychology, Anthropology, History, Political Science, Sociology, Architecture, Medicine, and Theology. Some of these theories were in sync with the investigations and principles worked out by economics that became a specialty known as Ecological Economics.<sup>2</sup> Some from the field of psychology have come up with their own analyses and propositions relevant to environmental care and protection; thus we have Ecological Psychology.<sup>3</sup> Architects and builders have not been deaf to the challenges of the Green Movement and so we now observe what is appropriately called Green Building.<sup>4</sup> Even political economics has to produce its versions of Green Accounting.<sup>5</sup> Books and articles in the field of medicine have sprouted to deal with the impact of environmental problems on the beliefs, organizations, and health of people. Theology and spirituality are not to be left behind with their contributions to the discussions that already involved numerous stakeholders. Such disciplines, which started out with parochial interests, gradually turned environmental and, eventually, ecological (i.e., ecosystem-aware) in their perspectives.

Environmental literature has been crafted as different kinds of environmental issues confronted people. Various movements

<sup>&</sup>lt;sup>2</sup>Carolyn C. Pertsova, ed., *Ecological Economics Research Trends*, New York: Nova Science Publishers, Inc., 2007; Kozo Mayumi, *The Origins of Ecological Economics: The Bioeconomics of Georgescu-Roegen*, London: Routledge, 2001.

<sup>&</sup>lt;sup>3</sup>Deborah Du Nann Winter, *Ecological Psychology: Healing the Split between Planet and Self*, Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc., 2003.

<sup>&</sup>lt;sup>4</sup>Jerry Yudelson, *Green Building A to Z: Understanding the Language of Green Building*, Gabriola Island, Canada: New Society Publishers, 2007.

<sup>&</sup>lt;sup>5</sup>Salah El Serafy, "The Economic Rationale for Green Accounting," in Philip Lawn, ed. *Sustainable Development Indicators in Ecological Economics*, Cheltenham, UK/Northampton, MA: Edward Elgar Publishing Limited, 2006, 55-77; Herman E. Daly and Joshua Farley, *Ecological Economics: Principles and Applications*, Washington, DC: Island Press, 2004.

Journal of Dharma 39, 4 (October-December 2014)

may have been dealing with the same environmental issues, but they embodied differences in perspectives as they give their respective views about causes of and solutions to problems. Various groups have embraced the approaches of conservation, preservation, protection, care, admiration, and respect of the environment. These assumed that much of what brought environmental destruction is the way human beings think of themselves at the centre of everything, necessarily bringing about the exploitative stance on nature.

#### 2. Critique of Anthropocentric Attitude

At the end of the 19<sup>th</sup> century and the beginning of 20<sup>th</sup> century, the widespread and more threatening forms of resource depletion and environmental degradation followed suit. During this period (1890-1920), the American Naturalist (with wilderness aesthetics as the core of environmental awareness) as well as Conservation Movement took centre stage through prominent figures like Ralph Waldo Emerson (1803-1882), John Burroughs (1837–1921), John Muir (1838-1914), Aldo Leopold (1887-1948) and Theodore Roosevelt (1858–1919).

Aldo Leopold's A Sand County Almanac provides the first formal expression of an environmental ethic. The naturalist foundation (which sees the beauty of the wilderness untouched by human hands) is presupposed by his conservationist-ethical position. As a forester, ecologist, and conservationist, Leopold has been appreciated as the first to connect aesthetical and ethical concerns in dealing with environmental issues. His 'land ethic' which identifies 'soils, waters, plants, and animals' as the boundaries of human activities evokes the need to bring back the intrinsic value and beauty of nature by avoiding activities that make it unbeautiful.

One problem witnessed by the American conservationists is the Dust Bowl. The settlers who ploughed through the North American High Plains effectively removed the vegetative cover that protected the soil. Wheat plantations did not protect the land from wind and water erosion that subsequently reduced it to the Dust Bowl. Vast areas were affected and during dust storms people and animals had their lungs badly injured; machines were wrecked, and crops were destroyed. When the agricultural economy was damaged, whole populations migrated to more promising regions. This exodus was depicted in John Steinbeck's novel, *Grapes of Wrath*.

The naturalist Rachel Carson moved beyond conservationism towards the forefront of environmentalism (a more active involvement in ecological preservation) with her seminal work *The Silent Spring.*<sup>6</sup> It was through her book that the public became more sensitive to the understanding of nature in terms of ecology and not in terms of conservation or source and sink. The concepts of 'food chains,' the 'web of life,' and the 'balance of nature' became catchwords. In her work began the greater recognition of the limits of science and progress: the more obvious and dramatic double threats to human health and to the environment. Her views reflect a greater sensitivity to the interconnected nature of impacts: humans on environment, environment on humans, and the various other elements (raw materials, products, geographies, other living beings) on one another.

If Rachel Carson is considered to be the 'mother' of environmentalism, Barry Commoner is the founding 'father.' His pioneering work *The Closing Circle* was published when he was already a recognized public figure on environmental issues. He was concerned over radioactive fallout and nuclear tests.

[*The Closing Circle*] is typical of his approach to environmental problems: a combination of an exposition of general scientific principles, particular case studies of environmental problems, and diagnoses of social, political, or economic sources for these problems. These three parts are usually taken to form an obvious whole. Science examines our relationship with nature

<sup>&</sup>lt;sup>6</sup>Rachel Carson, *Silent Spring*, Greenwich, Conn.: Fawcett Publications, Inc., 1962.

and uncovers problems in what we are doing to it. Science also tells us the policies that will avoid these problems.<sup>7</sup>

Commoner's work is considered as a systematization of Carson's observations. He, thus, helped formulating the 'ecological laws' familiar to today's environmental movement: 'everything is connected to everything else,' 'everything must go somewhere,' 'nature knows best,' and 'there is no such thing as a free lunch.'<sup>8</sup>

The deep ecological and ecocentric perspectives run against the seemingly functionalist or still utilitarian language of sustainable development. When understood as an idea not of human, social or cultural development but of economic growth, sustainable development is really a position that cannot compromise economic gains that may only be sustained if it continues to grow. Based on this understanding of sustainable development, growth must go on; industry and commerce are seen to be addicted to growth that cannot be overcome.

E. F. Schumacher's *Small Is Beautiful*<sup>9</sup> represents a different kind of environmentalist thought: that of an environmental ethicist. He brings the political and moral concerns into a broad environmental-ethical level. This tendency will be a highlight in the founding father of deep ecology, Arne Naess, who advocated for a common moral ground for various environmental groups beyond what he called a 'shallow ecology' of the *Limits of Growth* by the Club of Rome.

In the years of Hurricanes Katrina, Rita, and Typhoon Ketsana (known as Typhoon Ondoy in the Philippines), the deep ecological, biocentrist, or ecocentrist perspectives became the ultimate positions that insisted on the idea of the ecosystem as a

<sup>&</sup>lt;sup>7</sup>Charles T. Rubin, *The Green Crusade: Rethinking the Roots of Environmentalism*, New York/Oxford: Rowman & Littlefield Publishers, Inc., 1994, 53.

<sup>&</sup>lt;sup>8</sup>Rubin, *The Green Crusade*, 54.

<sup>&</sup>lt;sup>9</sup>E. F. Schumacher, *Small Is Beautiful: Economics as if People Mattered*, London: Harper and Row, 1973.

functional unit.<sup>10</sup> Following this logic, later environmental ethics has enthroned the ecosystem's centrality. Human beings have to finally recognize their position in the fringes of the whole autonomous living ecosystem.

# 3. Beyond the Anthropocentric Practice and Theory

Human beings who had to produce things and build environments (to adapt themselves to nature or to be able to efficiently exploit nature) always tried to preserve their gains. Such gains, even if these put pressure on the biosphere's or human beings' capacity, are still recognized for their usefulness or value. Indeed, human activities have been mainly perceived to provide indispensable goods and services to living beings; even if these also cause great harm or injury. Moreover, economists of the capitalist mould have to maintain the logic of capitalism as this is perceived to be the only viable system available to today's societies.

Ecological Marxists, however, challenge the assumptions of capitalist production and consumption patterns as these wreak havoc on people and nature. In their effort to face environmental issues, Marx and Engels have been recognized not just as political economists but also as frontrunners of ecological thought.

# 4. Nature and Human History

Marx views the history of humanity in terms of the production of goods—'use values'—anything that satisfies human needs, that is consumable or as means to produce more consumables or wealth.<sup>11</sup> Of course, Marx does not only refer to basic human needs but also to cultural and aesthetic wealth: "wealth consists

<sup>&</sup>lt;sup>10</sup>Eileen Crist and H. Bruce Rinker, eds. *Gaia in Turmoil: Climate Change, Biodepletion, and Earth Ethics in an Age of Crisis,* London/Cambridge, Mass: The MIT Press, 2010.

<sup>&</sup>lt;sup>11</sup>"Use-values . . . constitute the substance of all wealth, whatever may be the social form of that wealth;" hence "an increase in the quantity of use-values is an increase of material wealth" Karl Marx, *Capital*, Vol. I, New York: International Publishers, 1967, 36, 45.

... in the manifold variety of needs," and "use values ... can quite generally be characterized as the *means of life*."<sup>12</sup> All of such goods involved the process metabolism. This concept, implicating nature and society, indicates the material and energetic exchanges between human beings and nature, through the process of human labour.

In pre-modern times, the production of goods was ordinarily part of the whole experience of consumption and enjoyment. In today's those societies (including some of societies) underdeveloped/developing where find we persons/groups producing their own consumable goods, we also find the elements of waiting and expectation before actual and gratification. The waiting-in-patience consumption component of production-consumption somehow was part of the whole story of satisfaction of needs as families and clans (or people in closely-knit communities) worked patiently to produce their own goods or wealth. It was usually normal to patiently wait for the processing of cheese; for the completing of a crocheted jacket; or for the baking of baguette for breakfast. In those scenarios, money to buy goods is still not a strict requirement—people, in general, would consume what they produce and produce what they consume.

As people move to modern times, produced goods are no longer necessarily consumed by labourers-producers who would also work for their needs. Goods have become commodities having not just their 'use values' but also gained on top the 'exchange values' already appropriated by the capitalists-owners of the means of production. Commodities are thus appropriated by capitalists who have paid for the labourers' wages for production of more exchange values, which are translatable into profits as people would now ordinarily pay for what they used to produce and consume.

<sup>&</sup>lt;sup>12</sup>Karl Marx, *Grundrisse*, New York: Vintage, 1973, 527; Karl Marx, "Economic Manuscript of 1861–63, Third Chapter," in *Collected Works*, Karl Marx and Frederick Engels, Vol. 30, 9–46, New York: International Publishers, 1988, 40.

## 328 | Ferdinand D. Dagmang

Thus, hand in hand with the expropriation of the selfsupporting peasants, with their separation from their means of production, goes the destruction of rural domestic industry, the process of separation between manufacture and agriculture. And only the destruction of rural domestic industry can give the internal market of a country that extension and consistence which the capital mode of production requires. . . . Formerly, the peasant family produced the means of sustenance, which they themselves, for the most part, consumed. These raw materials and means of sustenance have now become commodities; the large farmer sells them, he finds his market in manufactures. Yarn, linen, coarse woollen stuffs-things whose raw materials had been within the reach of every peasant family, had been spun and woven by for its own use—were now transformed into articles of manufacture, to which the country districts at once served for markets.<sup>13</sup>

The story of value-producing labourers who are employed by owners of production units is part of the socially organized systems of production, distribution, and consumption-systems which necessarily bring about the problems associated with massive environmental depletion and degradation. These environmental problems, however, may be better understood if it is viewed against Marx's theories of alienation (involving the twin episodes of labour exploitation and nature despoliation), treadmill of production and metabolic rift. Ecological Marxism does not see the environmental problems apart from the problem of labour and the phenomenon of separations in modern societies. This is an approach aptly termed a "relational holism."<sup>14</sup>

#### 5. Alienations: Interconnections and Disconnections

The emergence of capitalism highlights the moving away of work and consumption (personal as well as business resource utilization practices) from rural communities and the push

Journal of Dharma 39, 4 (October-December 2014)

<sup>&</sup>lt;sup>13</sup>Marx, *Capital*, Vol. I, 747–48.

<sup>&</sup>lt;sup>14</sup>Paul Burkett, *Marx and Nature: A Red and Green Perspective*, New York, St. Martin's Press, 1999, 19ff.

towards urban capitalist centres. In Marx, this is the towncountry separation which is a primary form of ecological disruption generated by human production based on classes. This process by which capitalist industry destroys craft and artisan labour and working small land ownership will culminate with the development of modern industry which "expropriates radically the enormous majority of the agricultural population, and completes the separation between agriculture and rural domestic industry."<sup>15</sup> In modern factories, those previously with means of independent existence will be gathered together with the raw materials.

Marx's concept of alienation had its roots in the capitalist production contexts of the early Industrial capitalism. His analysis was based on simpler material structures and springing from an original ethico-political starting point which generated the concept of alienation along productionist contexts and emancipatory concerns for victims-protagonist proletarians.

For Marx, one is alienated in one's labour. In an alienating situation-as in a dependent economic relations-the ideal activity for human association becomes oppressive. Capitalist labour thus becomes alienating; praxis as human activity becomes an alienating activity and humans are deprived of initiative or decision to do what really humanizes them and their surroundings. Even in the way one accomplishes one's work, an extrinsic determination is imposed. One plays no part in deciding what to do or how to do it. In the products of labour, waged workers are deprived of the right to control. Among fellow workers competition and antagonism render healthy relations extremely difficult. In a capitalistically structured life, the distinctive relations of a person to oneself, to nature, to others and to one's potentialities/possibilities as a human being are splintered. A harmonious set of relations is difficult to expect in a context where people are expected to fit a format compatible with rigid planning and administration, competition, profit, and domination of nature.

<sup>&</sup>lt;sup>15</sup>Marx, Grundrisse, 512; Capital, Vol. I, 748–49.

Thus there is a double meaning of human labour. Labour, in the positive sense (praxis), as a sensuous human activity expresses the humanity of every agent in a free and social manner. In the negative sense, labour in an alienating situation dehumanizes the agent. One's products, expressions of oneself, are no longer under one's control and even become hostile to people since they are a negation of human potentialities.

The work-based understanding of alienation in Marx emphasizes its objective character and thus focused on the ineluctable alienation of the 'species being' because it is glued to relations of production. Alienation, however, may be understood in more concrete terms, that is, as estrangement from one's creations, from the creative process of production and estrangement between subjects: between the subjects-possessors of objective products/commodities, whether tangible or intangible, and the subjects-commodity whose roles as subjectscreators are demoted by their waged identities. To focus on the objective dimension of alienation may emphasize the nature of estrangement between the workers and their 'species being' but it does not make one immediately conscious of the mediating subjects of such estrangement.<sup>16</sup> Moreover, the way workers have been treated as sovereign buyers/consumers by the market have given them the opportunity to get some attention and respect, albeit by reasons extrinsic from their worth as human beings, thereby further creating a wider chasm/estrangement from intrinsic human values.

### 7. Treadmill of Production

The treadmill of production points to capitalism's bent to unlimited expansion, its unrelenting drive to increase profits, regardless of the natural environment's limits. Capitalism considers the human and extra-human resources as necessary for production of goods. These are privately appropriated properties indispensable to profit-making. Even as it recognizes the indispensability of raw materials, capitalism does not put enough value to nature compared to its valuation of money or

<sup>&</sup>lt;sup>16</sup>M. Burawoy, *The Politics of Production*, London: Verso, 1985.

technology. The natural conditions are not valued enough either for their importance as means of production or for their ecological significance. According to John Bellamy Foster,

capitalism maximizes the throughput of raw materials and energy because the greater this flow—from extraction through the delivery of the final product to the consumer—the greater the chance of generating profits. And by selectively focusing on minimizing labour inputs, the system promotes energyusing and capital-intensive high technologies. All of this translates into faster depletion of nonrenewable resources and more wastes dumped into the environment.<sup>17</sup>

Capitalism thus behaves like a treadmill run by interest for profit, unremittingly producing goods which would involve depletion and degradation of nature on top of exploitation of human beings.

In antiquity, more simple or less-complex problems about the environment caught the attention of leaders as well as writers, including philosophers. Environmental issues were usually connected with the pollution or depletion of the more visible resources: land and water. Capitalism's wastes could overload natural systems with increasing amounts of by-products: gases into the atmosphere, pollutants and toxins into bodies of water and the soil. Starting in the mid-18<sup>th</sup> century, in many areas of Europe and North America, urbanization and industrialization greatly concentrated the problems of pollution and health problems. There were evidences of more serious effect on human beings<sup>18</sup> than on nature, but the overly fertile seeds of environmental pollution and degradation have surely taken root.

In modernity, environmental problems already point to the damage of the ozone layer, the lacing of clouds with carbon/sulphuric emissions, the alterations in the bio-chemical

<sup>&</sup>lt;sup>17</sup>Karl Marx, "Economic Manuscript of 1861–63, Conclusion," in *Collected Works*, Karl Marx and Frederick Engels, Vol. 34, 7–354. New York: International Publishers, 1994, 123.

<sup>&</sup>lt;sup>18</sup>Frederick Engels, "The Condition of the Working Class in England," in *Collected Works of Marx and Engels*, Volume IV, New York: International Publishers, 1975, 295–596.

processes of living beings due to pesticide traces or hormones fed to animals, or the warming of the earth due to greenhouse gases.

Moreover, as the environmental problems became more connected with the modern/advance-modern<sup>19</sup> commerce, industry, and lifestyles, people began to deal with less visible causes that produced visible consequences. The method of making these causes more visible was not easy, but more and more writers had to resort to philosophical arguments as they got themselves involved in the green issues.<sup>20</sup>

### 8. Alienation of Nature: Metabolic Rift

Introduced by John Bellamy Foster, the term metabolic rift is a shorthand to refer to Marx's notion of the "irreparable rift in the interdependent process of social metabolism"<sup>21</sup>—Marx's reference to the ecological crisis tendencies under capitalism.<sup>22</sup>

<sup>20</sup>The best examples are Arne Næss, *Ecology, Community and Lifestyle: Outline of an Ecosophy*, translated and revised by David Rothenberg, Cambridge: Cambridge University Press, 1989 and Felix Guattari, "The Three Ecologies," translated by Chris Turner, *New Formations* 8 (Summer 1989): 131-147. The concepts of order and chaos, embodied realism, determination, good, etc. are explored and employed by various philosophers "who turn their attention to understanding the science of ecology and its huge implications for the human project" in Bryson Brown, et al., *Philosophy of Ecology*, Oxford: North Holland, 2011; see also Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World*, London: University of Minnesota Press, 2013.

<sup>21</sup>Marx, Capital, Vol. III, 949.

<sup>22</sup>John Bellamy Foster, *Marx's Ecology: Materialism and Nature*, New York: Monthly Review Press, 2000, ix.

Journal of Dharma 39, 4 (October-December 2014)

<sup>&</sup>lt;sup>19</sup>Manuel Castells, *The Network Enterprise*, Oxford: Oxford University Press, 2000; Manuel Castells, "Flows, Networks, and Identities: A Critical Theory of the Informational Society," in Manuel Castells et al., *Critical Education in the New Information Age*, Lanham: Rowman & Littlefield, 1999, 37-64; John Naisbitt and Patricia Aburdene, *Megatrends 2000: New Directions for Tomorrow*, New York: Avon Books, 1990; Anthony Giddens, *The Class Structure of the Advanced Society*, London: Hutchinson, 1973.

Marx conceived a sharp break in the two-way interaction between humanity and the rest of nature stemming from capitalist production and the division between town and country.

Marx thought of this conclusion from his study on how industrial agriculture tended to reduce fertility, robbing the soil and the workers of nourishment and sustenance. He also considered the concept of the metabolic rift on a global scale:

On the one hand, the immediate effect of machinery is to increase the supply of raw material in the same way, for example, as the cotton gin augmented the production of cotton. On the other hand, the cheapness of the articles produced by machinery, and the improved means of transport and communication furnish the weapons for conquering foreign markets. By ruining handicraft production in other countries, machinery forcibly converts them into fields for the supply of its raw material. . . . By constantly making a part of the hands "supernumerary," modern industry, in all countries where it has taken root, gives a spur to emigration and to the colonisation of foreign lands, which are thereby converted into settlements for growing the raw material of the mother country. . . . A new and international division of labour, a division suited to the requirements of the chief centres of modern industry springs up, and converts one part of the globe into a chiefly agricultural field of production, for supplying the other part which remains a chiefly industrial field. This revolution hangs together with radical changes in agriculture.23

Healing this fundamental break and building a sustainable society was central to Marx's vision of a socialist future:

Freedom in this sphere [the realm of natural necessity] can consist only in this, that socialized man, the associated producers, govern the human metabolism with nature in a rational way, bringing it under their own collective control instead of being dominated by it as a blind power;

<sup>&</sup>lt;sup>23</sup>Marx, *Capital*, Vol. I, 451.

# 334 | Ferdinand D. Dagmang

accomplishing it with the least expenditure of energy and in conditions most worthy and appropriate for their human nature.<sup>24</sup>

# 9. Conclusion

Marx has emphasized on capitalism's tendency to undermine its base through labour exploitation and despoliation of nature. This alienating and anti-ecological disposition of capital forms the fundamental source of environmental troubles in modern societies. Capitalism's alienating treatment of labour and nature is itself the precondition for its existence and for its destructive impacts on nature and societies. Unless these basic separations are addressed and solved, the limits of humans and nature will not be respected. Capitalism will have to reconfigure itself—for its own humanizing transformation and for the survival of humanity and the ecosphere.

<sup>&</sup>lt;sup>24</sup>Marx, *Capital*, Vol. III, 959.

Journal of Dharma 39, 4 (October-December 2014)