Nature as a Limit to Capital: Ecological Critique and Climate Change Mitigation

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Introduction

Climate change is the most significant issue humans have ever faced. Climate change politics, policy, and regulation are directed towards mitigation and adaptation, but the sluggish pace may further produce and contribute to the harsh realities of global warming. The science is no longer debatable and countless international organizations call for the ”greening" of the global economy. Yet, the endless growth required by Capitalism is at odds with the finite barriers of nature. Development, industrial production, waste, and consumerism all contribute to green house gas (GHG) emissions. Government regulation could decrease or cap the use of certain technologies and production practices that release GHG; however, the global economy is intimately tied with the use of fossil fuels. Effective climate change mitigation will require more than amorphous government regulations, a ”green economy" or the advent of ”sustainable development." Climate change mitigation will necessitate a comprehensive shift of being and knowing, especially in the advanced capitalist societies. At the heart of capitalism lies the exploitation of natural resources. Deforestation, corporate agriculture, pollution, and the degradation of the essential ecological life services, occurs under the tutelage of capitalist production, neoliberal idelogy and uneven development. Unless there is a decisive and urgent shift in policy and action, there is little room for optimism.

The purpose of this paper is to provide alternative pathways for economic growth and personal responsibility that will mitigate climate change while, at the same time, reducing inequality between the global north and south. The first part of this paper will explore the connections between environmental degradation, economic growth, globalization and capitalism. Through this exploration I will argue that simple mitigation regulations and tweaks in the capitalist system will not produce the significant change needed to avert global catastrophe. Instead, the world must shift to new paradigms that conserve energy, drastically reduce GHG emissions, reclaim equality, and promote democracy and environmental stewardship. The possible ways to achieve these goals will be explained in part two of the paper. In the final part of the paper, I will examine post capitalist politics and policies that may be necessary in a 2-degree hotter world.

Globalization and Capitalism — Effects on the Environment

The Industrial Revolution, the introduction of neoliberal economic ideology, and the capitalist notion of maximizing efficiency and production, have subjugated the environment to the limitless growth potential of capitalism. The arrival of free or near-free market resources, in tandem with globalization and cheap labor, produced a cycle of exploitation, thereby allowing industry to abandon the resource exploited sites to move on to other more efficient and exploitable sites without regarding long-term environmental effects. Professor Kütting from the State University of New York concluded, ”this liberalization and its supporting institutional framework have led to a new form of ecological imperialism that subjugates resource extraction and production to market ideology." [1] Capitalism’s infinite potential for growth is incompatible with the finite natural resources available. The current ideology degrades environmental health as corporations fail to internalize the cost of environmental protection. A recent study commissioned by the United Nations Principles for Responsible Investment, concluded that in 2008, ”the top 3,000 companies had an environmental impact of $2.2 trillion dollars...the estimated annual environmental costs from global human activity equat[es] to 11% of global GDP or $6.6 trillion." [2] They projected the cost to be $28 trillion by 2050 (excluding the costs of invaluable ecosystem services, pollution and waste). [3] In the report, ”impact" is a euphemism for environmental degradation. This process is accumulation by dispossession, the exploitation of a resource without appropriate reimbursement. The ultimate outcome of market growth and environmental exploitation is climate change. Global society’s recreation of this relationship is essential to safeguard natural resources for future generations. The nature of capitalism and its agents is that they operate in a short time horizon — profits cannot be guaranteed in the future and capitalists want to receive their profit in the moment. This profit maximization, in the moment, will lead to faster and faster depletion of non-renewable energy and resources. Marx noted how this short time horizon exhausts resources — Anticipation of the future—real anticipation—occurs in the production of wealth in relation to the worker and to the land. The future can indeed be anticipated and ruined in both cases by premature overexertion and exhaustion, and by the disturbance of the balance between expenditure and income. In capitalist production this happens to both the worker and the land...What is shortened here exists as power and the life span of this power is shortened as a result of accelerated expenditure. [4]

The unprecedented growth of advanced capitalist nations, post industrial revolution, and the current growth rate of developing countries expends vast natural capital, much of it non-renewable.

Nature is a vast source of input values in capitalist production. Significantly, nature’s values can be seized without appropriate payment, or for free, so there is no monetary exchange value. The valuation of nature is also a

questionable and debatable topic. For example, everyone enjoys a clean lake, but how much is that clean lake worth? How much is someone willing to pay to keep the lake clean, and similar examples, are questions that cannot be valued in any specificity — especially economically. Thus, the centrality of money that Marx theorized connects all disparate social labors under capitalism is missing with our relationship to nature. We are disconnected. Marx stated, ”money [becomes] the universal and self-constituted value of all things. It has therefore deprived the entire world - both the world of man and of nature - of its specific value... Money is the estranged essence of man’s work and existence; this alien essence dominates him and he worships it." [5] Our relationships with people, things, and experiences are monetized to such a degree that money becomes the source and conclusion of action and involvement. The undervaluation of natural capital allows for uninhibited resource extraction. John Bellamy Foster noted this intensification resources use — 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 labor inputs, the system promotes energy-using and capital-intensive high technologies. All of this translates into faster depletion of nonrenewable resources and more wastes dumped into the environment. [6]

Production and waste are inextricably linked processes that have occurred for millennia, but not to the degree we experience today. Current production, consumption and waste patterns are non-sustainable. These patterns are the single contributor to environmental degradation. Economists, Environmentalists, policy analysts, academics, activists, and politicians all recognize the desperate state of looming climate change.

The current climate change policy debates and blueprints accepted by most developing and developed countries are extremely lacking. For example, the Copenhagen Accord created a non-binding objective to limiting the increase of global temperatures to 2 degrees Celsius. Towards this objective, the signatories will mobilize a fund to combat climate change mitigation and adaptation in developing countries at $100 billion per year by 2020 and asks the industrialized countries to set emissions targets for that same year. The World Energy Outlook 2010 compiled by the Organization for Economic Co-operation and Development (OECD) and International Energy Agency (IEA) stated that the Copenhagen Accord would not achieve the 2-degree Celsius goal and that ”cutting emissions sufficiently to meet the 2°C goal would require a far-reaching transformation of the global energy system." [7] Providing a fund for developing nations does not produce the results needed, even though the significant increases in energy use and production will occur in those nations. The 450 Scenario is based on the projection that 450 ppm (part per million) of carbon dioxide will only cause a 2 degree Celsius increase and that this is a reasonable level of increase. To achieve this goal will cost $18 trillion between 2010-2035 and requires the carbon intensity to decrease by at a rate of 5.3% for the same time period. [8] Essentially, there must be a drastic decrease in carbon dioxide.

Economic growth is inextricably linked with natural barriers — be it non-renewable energy, arable land or urban centers. Most economists agree that a 3% GDP increase a year is a healthy economy. Less than that is sluggish, less than that is a recession. If a 3% increase in GDP a year were to be the case, there will be over $100 trillion in the global economy by 2030. This will require finding new and profitable global investment opportunities for $1.6 trillion in 2010, rising to closer to $3 trillion by 2030. This contrasts with the $0.15 trillion new investment needed in 1950 and the $0.42 trillion needed in 1973 (the dollar figures are inflation adjusted). [9] Since the 1970’s the surplus capital was financialized and dematerialized. However, much of this forecasted surplus capital would be invested in development projects over the next 30 years. Through global development, environmental degradation will occur on larger and larger scales. How the system is structured now, we act like natural resources are an infinite source of exploitation and the price of oil and food will stay around the same. Marx acknowledged these natural barriers when he stated — It is therefore quite possible, and under a developed capitalist system even inevitable, that the production and increase of the portion of constant capital consisting of fixed capital, machinery, etc., should considerably outstrip the portion consisting of organic raw materials, so that demand for the latter grows more rapidly than their supply, causing their price to rise. [10]

The rise of energy, food, and other life giving resources prices is our future. Nature is a barrier that capitalism cannot entirely circumvent. The natural resource barrier in capitalism is not the only inherent barrier found in capitalism. Marx noted — The real barrier of capitalist production is capital itself . It is that capital and its self-expansion appear as the starting and the closing point, the motive and purpose of production; that production is only for capital and not vice-versa, the means of production are not mere means for a constant expansion of the living process of the society of producers.

Capital is not interested in production unless it is profitable production. Water scarcity is already a major international issue and will only become more catastrophic. It takes 62,600 gallons of water to make one ton of steel and 39,090 gallons of water to make a new car; how long will capital continue to produce these things once the price of water

increases? [11] Other results of climate change such as food shortages, droughts, sea level rise, and severe weather conditions will provide another barrier to capital. Where is this 3% GDP increase going to go after 2020? Forecasts that include this GDP increase are not looking at possible severe environmental factors or the limits of natural capital. The dematerialization of capital cannot occur if energy costs are too high to sustain the living conditions we have now. Professor Murray Bookchin a noted anarchist ecologist notes: A capitalistic society based on competition and growth for its own sake must ultimately devour the natural world, just like an untreated cancer must ultimately devour its host. Personal intentions, be they good or bad, have little to do with this unrelenting process. An economy structured around the maxim Grow or Die', must necessarily pit itself against the natural world. [12]

Sustainability of Capitalism and Development

The current production and development process is not environmentally sustainable. Marx proposed that "the entire spirit of capitalist production, which is oriented towards the most immediate monetary profit" is contrary to "the whole gamut of permanent conditions of life required by the chain of human generations" and that all improvements in capitalist agriculture in "increasing the fertility of the soil for a given time is a progress towards ruining the more long-lasting sources of that fertility." [13] Over 100 years ago Marx saw that the capitalist system constantly exploits both labor and nature for the benefit of the capitalists.

Professor Robert Cox notes — Production creates the material basis for all forms of social existence, and the ways in which human efforts are combined in production processes affect all other aspects of social life, including the polity. Production generates the capacity to exercise power, but power determines the manner in which production takes place [14]

Shifting the reins of power to alter how we produce can be one way to evolve beyond this environmentally degrading process. This echoes Marx's proletariat revolution, but is inherently different since the actuality of a worker's revolution manifesting is impracticable. The advent of globalization and the media conglomerates disallow any sense of global interconnectedness that would spark a revolution that Marx foretold. Gabriel Kutting notes — The age of mass production and consumption, and the distanciation of the production process from the resource extraction stage has obscured the link between production, consumption, and environmental degradation, thus making it difficult to create a directly observable link between the accumulation of capital and the Linking Environment and Society creation of environmental degradation. [15]

The abstract nature of this process of production, consumption and environmental degradation, in a sense, goes beyond what most people are willing to care about. When an average consumer buys a product in WalMart that was made in China they understand that it was shipped from there, that the labor was cheaper, but they probably do not consider the lenient environmental regulations and controls in China, nor the expenditure of fossil fuel required to reach American ports than transferred to the stores, or the plastic wrapper that is either thrown away or recycled. There is a connection between each step in this process with every item bought. We need not only a shift in production and waste patterns, but also of consumerism itself.

Marx theorized that capitalism's essence is "grow or die." In capitals infinite search for growth, its weakness and final death knoll will sound when it can no longer grow. Non-renewable and life supporting ecological services are constantly in a cycle of degradation. The end of capitalism, under the current world order, will coincide with the end of the world. However, this violent process of exploitation can be changed prior to catastrophic climate change scenarios. Murray Bookchin argued — One cannot improve this social order, reform it, or remake it on its own terms with an ecological prefix such as eco-capitalism'. The only choice one has is to destroy it, for it embodies every social disease — from patriarchal values, class exploitation, and statism to avarice, militarism, and now growth for the sake of growth — that has afflicted civilisation' and tainted all its great advances. [16]

This relates back to the barriers of capitalism that capital navigates around. The first contradiction of capitalism is labor. I argue that nature is the second contradiction of capitalism. David Harvey, a Marxist geographer, notes that the primacy of the barrier of natural capital should not take primacy over other faults of endless capital accumulation, "the barrier in the relation to nature is not to be taken lightly and that the stresses are becoming, along with everything else, more global." [17]

Capitalism may be able to provide some ecological care once technological advances in environmental protection itself are profitable. However, the irrationality of infinite capital accumulation, which subordinates everything in pursuit of growth, will undeniably degrade the environment. But environmental degradation is not limited to capitalism. Noted Marxist scholar Ellen Meiksins Wood stated — If destruction of the environment in the Communist world resulted from gross neglect, massive inefficiency, and a reckless urge to catch up with Western industrial development in the shortest

possible time, in the capitalist West a far more wide-ranging ecological vandalism is not an index of failure but a token of success, the inevitable by-product of a system whose constitutive principle is the subordination of all human values to the imperatives of accumulation and the requirements of profitability. [18]

Knowledge of capitalism's inherent crises has become popular since the 2008 financial crisis. Despite the acknowledgement of such a built-in crisis and the world's growing eco-consciousness, there have been no attempts to change behavior, especially concerning environmental causes. We have the driving of competition and profit maximization along with the necessity of industrial development. The interests of the environment in the global north or south does not motivate these forces of capitalism and development and, most likely, never will.

In the US, there is constant media and corporate rhetoric that creates the image of the "green" company. The environmental movement of the 60's and 70's, and the creation of the EPA, put firm pressure on corporations to change their production and waste methods. In the past decade, many PAC's and Public interest groups provide certificates of cleanliness for corporations depending on certain benchmarks. Professor Giorel Curran states, "corporations utilize their considerable resources to propagate a rhetoric of corporate social responsibility that masks the reality of accelerating degradation and scant regard for social and environmental justice." [19] When large businesses are marketing themselves as environmentally friendly or sustainable, we should question their approaches.

In 2005 Walmart branded themselves as using a green approach called "Sustainability 360." [20] Walmart's broad goals are "to be supplied 100 percent by renewable energy; to create zero waste; and to sell products that sustain people and the environment." [21] Walmart defines sustainability as "investing our resources — people, time and money — into meeting our customers' needs and expectations to ensure their support for years to come." [22] In other words, sustainability is related to their consumer base and profit, not the environment. Their reason for "going green" is to maximize their customer base for as long as possible and save themselves money in the long run. Their global sustainability report focuses mainly on making their stores more energy efficient and to improve their fleet efficiency. According to Smith, this "green capitalism" — may be touted as a means of softening the environmental impacts of the capitalist exploitation of nature, or criticised as simply environmental veneer for sustained exploitation, yet whatever the truth of these propositions, the significance of green capitalism' is far more profound. It has become nothing less than a major strategy for ecological commodification, marketization and financialization which radically intensifies and deepens the penetration of nature by capital. [23]

Walmart's approach is heralded as a systematic pathway to sustainability and as a leading example in business "greening." This corporate assault on environmentalism effectively took control of the environmental policy agenda. Sustainability is now defined by energy efficiency, fair trade, and other minimal concessions, not the required shifts needed in lifestyle, culture, and consumerism.

In order to produce and spread the unprecedented level of consumerism and way of life enjoyed in advanced capitalist countries, we need to complement the current human labor power base with other forms of capital. Economists sort these productive inputs into four classes — physical, human, natural and social capital. [24] Physical capital is the production infrastructure such as warehouses, industrial machines, and buildings. Human capital is labor. Natural capital is harder to define since it consists of water, fisheries, forests, air, non-renewables, land, and ecological life support systems. Social capital consists of our relationships with others and is the most abstract source of capital because it comprises each connection we make with other individuals that keeps the capitalist machine moving forward. Marx describes the relations between the separate capitals eloquently, "every self-estrangement of man from himself and nature is manifested in the relationship he sets up between other men and himself and nature." [25]

Natural capital, which includes non-renewable resources, is in a constant state of degradation and depreciation as development and production tax these resources. Professor Fitzroy elaborates — Neoclassical economists assert that this does not necessarily imply the end of a sustainable world, as long as there is sufficient investment in other kinds of capital. If the total stock' of capital in some appropriate sense is maintained (whatever its composition), then sufficient substitutability between man-made (physical, human and social) and natural capital should enable future generations to enjoy at least the same level of welfare as today.

This assumption that there is no decline in "total stock" of capital is considered "weak sustainability." This the sustainability that Walmart practices and other businesses emulate. On the other hand, "True or strong' sustainability emphasizes conservation of natural capital and stabilizing population, rather than maintaining the material productivity and consumption growth that is actually eroding natural and social capital in the advanced economies." [26] By promoting weak sustainability as policy, such that, natural capital can be replaced by human or physical capital, is na¯ve or has placed far too much faith in a future technological breakthrough — Strong sustainability remains an ideal rather than a precise guide for policy, and is thus often rejected as irrelevant, but without wide acceptance of this ideal

instead of continuing current growth patterns, our chances of averting climate catastrophe and agricultural collapse will be slim. [27]

The policy's emerging from advanced capitalist countries espouses the weak sustainability model by not focusing on reducing consumerism and the degradation of the environment, but focus instead on technological advances such as renewable energy and biofuels. A fundamental shift in policy and regulations need to occur if we are to avert the catastrophic outcomes of global warming.

Ecology and Environmentalism

There are two fundamental theoretical sources for mitigating climate change and reducing environmental degradation — environmentalism and ecologism. According to Andrew Dobson, a forerunner of ecological theory — Environmentalism argues for a managerial approach to environmental problems, secure in the belief that they can be solved without fundamental changes in present values or patterns of production and consumption; ecologism holds that a sustainable and fulfilling existence presupposes radical changes in our relationship with the non-human natural world, and in our mode of social and political life. [28]

Environmentalism is the central policy of the advanced capitalist countries. As noted earlier, the Copenhagen Accord, 450 ppm Scenario, and business as usual tactics do not embrace the radical changes, we as a species, need to implement. Environmentalism promotes working within the current system, a system that sees a 3% growth per annum. Piecemeal regulations that are in force today that slowly halt deforestation, species extinction, and pollution, are not enough to mitigate climate change. In the forecasts from the World Energy Report 2010 and the OECD's Towards Green Growth, still see a increase in GHG emissions due to development and the continued use of fossil fuels. The US federal government cannot even pass vehicle miles per hour regulations without severe push back from the auto industry and other corporations fearful that they may be next. [29] Frederick Engels noted years ago that "regulation...requires something more than mere knowledge. It requires a complete revolution in our hitherto existing mode of production, and simultaneously a revolution in our whole contemporary social order." [30] Non-binding international agreements and piecemeal, sometimes ineffective regulations and legal challenges, will not be enough. A revolution in thought and being is necessary.

Individuals' relation with nature is mirrored in how they treat individuals as well. Simply put, someone who can pour industrial chemicals in the river does not have a problem with exploiting someone's labor. Carolyn Merchant, an environmental historian stated — Radical ecology emerges from a sense of crisis in the industrialised world. It acts on a new perception that the domination of nature entails the domination of human beings along lines of race, class, and gender. Radical ecology confronts the illusion that people are free to exploit nature and to move in society at the expense of others, with a new consciousness of our responsibilities to the rest of nature and to other humans. It seeks a new ethic of the nurture of nature and the nurture of people. It empowers people to make changes in the world consistent with a new social vision and a new ethic [31]

Professor Merchant argues for a new shift in our relation to nature and people. Through what she calls radical ecology, we produce social movements that invigorate our connection to nature and humans. Similar to human rights, radical ecology asks us to respect and honor the rights of mother earth. Ecuador passed a constitutional amendment that recognizes and enforces the rights of nature. Bolivia is in the process of providing federal rights to mother earth. There is a movement to legally protect the earth and its resources for future generations. Such legislation worldwide would eventually create binding norms in international relations and lawmaking. This is an important step for legitimizing and promoting environmental protection and restoration.

Decentralization

Decentralization of the economy localizes capital and public affairs within a specific regional area and could provide a blueprint for post capitalist societies. From this standpoint, the community can regulate environmental relations with specific certainty to the area. Furthermore, localization of the economy cuts down on fossil fuel consumption, mass agriculture, and corporate deforestation projects. In other words, "these approaches promote community-owned enterprises focused on import replacement activities, the marshaling of local finance and its recycling within the locality, and increasing harmony with nature." [32] The decentralization of economy and community is anarchist in nature since the dissolution of the state is a necessary precondition to self-government. Professor Geus states, "such an anarchist organisational structure emanates from individual freedom and autonomy and from the principle of providing opportunity for members of the organisation to govern their own lives and to share responsibility." [33] Despite the obvious push back from politicos and the tainted definition of anarchism, decentralized and local economies could provide safe harbor from the inequalities of global capital. Yet, the weakness of this project is the question of pollution

and waste from surrounding areas. If there is no centralized government to regulate across border pollution, local communities could suffer from others waste.

Climate change policies must blend both the centralized power of a federal government and the decentralized notion of regional and local ecology. There must be a strong state to punish and regulate national environmental degradation. In other words, ”capitalist enterprises will behave in a more environmentally friendly way only when they are persuaded by a strong and strictly norm-giving state that is prepared to prosecute, capable of doing so, and if necessary ready to impose severe punishment." [34] However, ””only through a real communality in which people gain control over the social conditions of their existence (instead of placing them at the service of exploitative and anarchically competitive money-making), will society be able to regulate its metabolic interchange with nature in a healthy and sustainable way." [35] The maxim ”decentralization if possible centralization if necessary" provides a balance to these divergent theories of environmental protection. Restructuring society based upon utopian ideals, such as decentralization, is broad and without precedent. Karl Popper commented on this utopian blueprint as follows — Utopian engineering recommends the reconstruction of society as a whole, i.e. very sweeping changes whose practical consequences are hard to calculate, owing to our limited experiences. It claims to plan rationally for the whole of society, although we do not possess anything like the factual knowledge which would be necessary to make good such an ambitious claim. We cannot possess such knowledge since we have insufficient practical experience in this kind of planning, and knowledge of facts must be based upon experience. [36]

Taking the middle path and experimenting in both pathways will eventually manifest a balanced social community and network that embraces environmental restoration and protection.

Tragedy of the Commons

The common denominator in capitalist countries is the unlimited use of resources by individuals. This concept is immortalized in Garrett Hardins’ ”tragedy of the commons." Noted anthropologist, Stephen Gudeman believed the tragedy of the commons "is a tragedy not of a physical commons but of a human community, because of the failure of its members to treat one another as communicants and its transformation to a competitive situation." [37] The drive for competition is the fuel through which capitalism runs. The tragedy of the commons in the globalized world manifests even more unevenly in the developing world. Multinational corporations, who have no stake in the country besides natural resource extraction and are ruled only by self-imposed principles and ethics, casually strip the land without paying heed to intergenerational circumstances or the circumstances of the current local inhabitants. All to often we hear of corporations laying waste to country sides and then moving on to another site to exploit. International governance, inculcated with neoliberal ideologies, supports this corporate behavior. In fact, this global system provides ”for the efficient transfer of resources from the periphery to the core and thus provides a continuation of more violent or more directly exploitative policies of the past." [38] The battles for environmental justice that began in the US are now battles to be fought and won in the global arena. Rosa Luxembourg outlines this global process of environmental exploitation, ”capital, impelled to appropriate productive forces for purposes of exploitation, ransacks the whole world, it procures its means of production from all corners of the earth, seizing them, if necessary by force, from all levels of civilization and from all forms of society." [39] Competition and the lack of business, environmental and social ethics are the cause of these violent exchanges of capital.

Halting and reversing current environmental degradation is especially difficult when the country does not have the resources to enforce such measures, especially if the state is undemocratic or corrupt. The individuals and states that will be the most affected by climate change are the ones least able to manage complex environmental deterioration and climate change effects. Professor Fitzroy posits that ”The problem with most developing nations is that the environment is not an overarching priority at this stage of their development process." [40] The GDP of developing countries has been rising 5-7% per annum for years and a recent World Bank report sets the rate of increase for 2011 at 6.3%. [41] The government would be hard pressed to slow down their economic growth for the global or even for the local good. As we know historically, the developing countries are not to blame for the majority of GHG emissions since the industrial revolution. Only now are they becoming participants in global climate change. This social and economic order recreates and reproduces this unequal exchange of capital and the accumulation of ecological debt which rich countries owe poor ones.

Conclusion

Society under capitalism, industrial production, and unbridled development, inherently degrades and exhausts environmental resources. Establishing a social movement that communicates the necessity of another form of global governance and economy begins with one person. Goodin endorses democratic means for bringing about a green

revolution: Green theory treats individual human beings as agents who naturally are, and morally ought to be, autonomous and self-governing entities. Politically, that pretty directly implies the central theme of the green political theory of agency: the importance of the full, free, active participation by everyone in democratically shaping their personal and social circumstances. [42]

Indifference to the looming global catastrophe is no longer an option. Policies that place capital above all else will continue the reproduction of environmental degradation. Evidence of large financial crises and climate change reveal the limits to capitalism. Wood notes — The protracted crisis in advanced capitalist economies, which even mainstream economists are describing as 'structural', may not signal a terminal decline; but it may indicate that these economies have for the foreseeable future exhausted their capacity to survive without depressing the living and working conditions of their own populations." [43]

The uneven geographical development and environmental degradation in developing countries and low-income neighborhoods, compared to advanced capitalist countries and high incomes neighborhoods, is striking. The current projections expose how inequality is inherent in capitalism and the effects of climate change will affect those least able to adapt. A culture shift is needed and the change begins within. Bookchin theorizes that ”changes in culture and personality go hand in hand with our efforts to achieve a society that is ecological — a society based on usufruct, complementarity, and the irreducible minimum — but that also recognizes the existence of a universal humanity and the claims of individuality." [44] This global shift will occur one person at a time. We have to ask ourselves this question — will we remain entrenched within our ways?