

# DOWNLOAD PDF CAPITALISM, NATURE AND CLIMATE CHANGE: A STRUCTURAL ANALYSIS

## Chapter 1 : Monthly Review | The Great Capitalist Climacteric

*Labour is the form in which humans interact with nature through the exchange and transformation of organic matter. As economic agents, humans 'both confront the nature-imposed conditions of the processes found in the material world and affect these processes through labour' (Clark and York, , p. ).*

Romain Felli, *La grande adaptation. Climat, capitalisme et catastrophe* The Great Adaptation: Climate, Capitalism, and Catastrophe , Paris, Seuil, , p. Romain Felli, a geographer and political scientist at the University of Geneva, proposes a clear and well supported argument, which alternates between a description of long-term trends and analysis. Drawing on Marxism, critical geography, and political ecology, all of which emphasize the structural socio-economic causes of environmental inequality and vulnerability to climate change, Felli proves two points. First, he shows that the idea that society must adapt to environmental change has, since the s, established itself as the default answer to global warmingâ€”despite the fact that the international negotiations occurring between and emphasized the reduction of carbon emissions. Second, he denounces the instrumentalization of this idea by neoliberal policies that seek to expand markets by denying the structural causes of climate change and the vulnerabilities it creates. The climate crisis is a crisis of the way in which capitalism organizes natures. The drought and famine afflicting the Sahel in the s were perceived at the time as confirming neo-Malthusian theories which maintained that agricultural collapse was caused by climate fluctuations. Adaptation proved to be a compelling argument for the modernization of agriculture, which meant expanding the use of chemical fertilizers, land seizures, and increased dependency of developing countries on multinational corporations. Climatology thus placed itself at the service of American agribusiness. Because reducing fossil fuel usage was considered irresponsible, neoliberals took hold of the debate. To this end, they emphasized the costs associated with reductions and the benefits of adaptation, insisting that climate policies were prone to uncertainty due to imperfect knowledge, climate variability, and so on. From this inability to make predictions about the world it followed that planning was impossible, thus justifying minimal levels of intervention, which were limited to price incentives. Adaptation was thus presented as an adjustment to natural risks. Thus he re-examines the work of Rolando Garcia who, in , had proposed a fundamentally different analysis of famine, which he saw as the consequence of socio-economic vulnerability rather than climate fluctuations. Yet his research, along with social analyses of famine as seen in the work of Amartya Sen and Michael Watts , was marginalized, despite being on the rise in the s, in favor of a more global and deterministic approach. At the same time, developing countries proved unable to mount successful opposition to flexibility. The concept of resilience was transposed from biology to the social world, while ecology positioned itself as a science of flexibility. While the author unfortunately does not go into the reasons for this forgetting, referring the reader instead to the literature on climate negotiations, he skillfully shows that its reemergence in the late s relied once again on the language of uncertainty and flexibility. At a time when microfinancing was growing, microcredit appeared, in the South, as the first tool for adapting to climate change. It was premised on the idea that poverty was caused by exclusion from markets. Drawing on the example of an Indian province, the author clearly shows the limits of this principle: Aspiring to mitigate uncertainty and to mutualize risk, micro-insurance projects run by multinational corporations also sought to profit from poverty; it was in their interest not to reduce vulnerability, but to perpetuate it. A pilot program conducted in Ethiopia demonstrated the conditions required for such an approach to succeed: Yet the author notes that in order to be profitable, the system must abandon either the features that make it function locally or the subsidies that allow the poor to participate and local negotiations to occur, thus enhancing the vulnerability of the poorest populations to price variations when they are forced to market what they produce. For these reasons, Felli concludes that disregard for the economic and social conditions that make the poorest vulnerable have resulted in new forms of vulnerability. In fact, migratory decisions relating to environmental transformations depend on a complex power structure, access to resources, norms, and institutions that shape

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the differentiated vulnerability of populations confronted with climate change. Based on instances of climate migration, the final chapter discusses the implementation of the instrumentalization of adaptation. Colonial and postcolonial histories, violent land seizures, the subjugation of entire populations to extractive labor regimes, neoliberal structural adjustment policies, the behavior of multinational corporations, local power struggles—all of this was forgotten. If global warming caused poverty, population displacements, or even war, then human institutions, political conflict, and social and economic inequality became, relatively speaking, less important. Turning a threat into an opportunity and getting beyond discourses of victimization, migration was ultimately sold as a form of adaptation. The Stakes of De politicization This partisan book thus places itself at odds with studies of adaptation by denouncing its supposed novelty and neoliberal implications. Put differently, the point should be to re-politicize the climate issue. The stakes of de-politicization lie at the heart of his argument. Felli brilliantly shows how adaptation preserves a status quo founded on social misery and absolves political and economic actors of any sense of responsibility: In an analysis that lies at the crossroads of the sociology of science and that of elites, Felli also offers a very lucid illustration of the stakes involved in the co-production of science and politics through institutional practices—notably the financing of research—and key individual actors, though it is unfortunate that, towards the end of the book, the argument becomes somewhat less focused on agency. In this way, one begins to discern a permanent tension between environmental questions and the climate problem. One wishes that the author had grappled more directly with this question and its consequences for the way the environment is currently conceived. It is also a shame that the book avoids offering an alternative solution, one that would combine reducing vulnerability and social emancipation, which are very briefly discussed in the conclusion. The issue of how the proposals discussed might be realistically implemented deserves some mention, since a number of partisans of the environmental cause rallied the dominant neoliberal discourse out of pragmatism. Even so, thanks to its solid argumentation and the quality of its writing, this extremely well documented book offers a judicious interpretation at a time when it is essential to ensure that the solutions to serious problems do not, in turn, become problems in their own right. To quote this article: If you want to discuss this essay further, you can send a proposal to the editorial team redaction at [laviedesidees](mailto:laviedesidees). We will get back to you as soon as possible.

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## Chapter 2 : Monthly Review | II. Capitalism and Ecology

*This book discusses climate change as a social issue, examining the incompatibility of capitalist development and Earth's physical limits and how these have been regulated in different ways.*

Sep, By Richard N. Weather generally refers to short-term variations on the order of minutes to about 15 days NSIDC, An extreme event is a weather event that is rare at a particular place and time of year IPCC, Scientists have reached a consensus that weather, climate and extreme events of the past generally will not be representative of those of the future. Moreover, climate science is not able precisely to forecast the climate, weather and extreme events of future decades. This poses a challenge to structural engineers whose design standards are based on the assumptions of stationary climate, weather and extreme events as observed in the past. It was established by the United Nations Environment Programme UNEP and the World Meteorological Organization WMO in to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts. The Table shows the recent, qualitative IPCC assessment, based on observations and global climate models, of future weather and extreme events relevant to structural engineering design IPCC The draft NCA was prepared by the National Climate Assessment and Development Advisory Committee involving over authors, including climate and social scientists and engineers. It has chapters on urban systems, infrastructure and vulnerability, U. Average Temperature Projections, taken from the draft NCA, illustrates both the potential significance of climate change for structural engineering and why climate science cannot now quantitatively forecast future climate, weather and extreme events. The projections for the 21st century are derived from global climate models that consider a variety of scenarios for economic development and control of greenhouse gas emissions Moss et al. The historical trend of atmospheric CO<sub>2</sub> is shown in Figure 2. The CO<sub>2</sub> data red curve for Mauna Loa, measured as the mole fraction in dry air, constitute the longest record of direct measurements of CO<sub>2</sub> in the atmosphere. The black curve represents the seasonally corrected data. Greenhouse gas emissions in the 21st century will depend upon worldwide private and public policy decisions and actions, which are unpredictable, but can be represented by scenarios such as those used in preparing Figure 1. What Can Engineers Do? These activities may include recommendations for initiatives related to: Fostering understanding and transparency of analytical methods necessary to update and describe climate, weather and extreme events for planning and engineering design of the built and natural environments. Identifying and evaluating methods to assess impacts and vulnerabilities caused by changing climate conditions on the built and natural environments. Promoting development and communication of best practices in civil engineering for addressing uncertainties associated with changing conditions, including climate, weather, extreme events, and the nature and extent of the built and natural environments. Engineers can join in research with climate and weather scientists to develop integrated models for climate, weather and extreme events National Academies , which, combined with observations, can give probabilistic guidance for the conditions for which structures should be designed, constructed, operated and maintained. Before such research is conducted and its results are incorporated into structural standards “ a process that may take a decade or more “ the question arises of what structural engineers can do to comply with the most fundamental canon in the ASCE Code of Ethics: Long life contributes to sustainability and reduction of greenhouse gas emissions through conservation of materials and energy required for removal and replacement. Long life can be promoted by siting to avoid susceptibility to flooding and wildfires, and using structural systems and details that are inherently resistant to extremes of temperature, wind and precipitation. Loose fit means making structures adaptable to conditions that could not be foreseen during the original design “ a quality already widely exemplified by older structures in useful service today. They will ultimately guide the evolution of structural standards and practices. Gordon Designing for survival:

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## Chapter 3 : Capitalism and Climate Change : Max Koch :

*This book discusses climate change as a social issue, examining the incompatibility of capitalist development and Earth's physical limits and how these have been regulated in different ways. It addresses the links between modes of consumption, energy regimes and climate change during Fordism and finance-driven capitalism.*

Marxist Ecology This talk was presented to the Socialism conference in Chicago on June 15, The social relation of capital, as we all know, is a contradictory one. Two crucial issues in this debate are: What is at issue here can be best understood if we turn to Marx. Marx employed the concept of a rift in the metabolic relation between human beings and the earth to capture the material estrangement of human beings within capitalist society from the natural conditions that formed the basis for their existence. One way in which this manifested itself was in the extreme separation of town and country under capitalism, which grew out of the separation of the mass of the population from the soil. Nineteenth century agricultural chemists, most notably Justus von Liebig, had discovered that the loss of soil nutrients—such as nitrogen, phosphorus, and potassium—through the exportation of food and fiber to the city—was disrupting the soil nutrient cycle and undermining capitalist agriculture, while burying cities in waste. The historical answer of the system to this declining soil productivity was, initially, importation of vast quantities of bones from the Continent and guano bird droppings from Peru, and, later, the development of synthetic fertilizers. Synthetic fertilizers, however, created further problems. Thus arose an ever widening and more complex metabolic rift, leading to the severe disarticulations in the nature-society relation that characterize contemporary agriculture and industry. Marx recognized that this metabolic rift represented a problem of sustainability. In an oft-quoted passage he remarked that capitalism sapped the vitality of the everlasting sources of wealth—the soil and the worker. Nor was the problem of the metabolic rift confined simply to the soil. His closely related studies of evolutionary theory led him toward notions of coevolution. His critique of political economy highlighted the commodification of all of life and the dominant role played by accumulation without end, rooted in exchange value as opposed to use value. This first contradiction represents an economic crisis that manifests itself on the demand side that is, on the side of the realization of profits. Capitalism does not directly produce human beings or even the capacity to labor—however much it may wish to treat labor power as a commodity virtually like any other. Nor does it produce external nature. The built environment, for its part, emerges in a way that is dictated by spatial and temporal factors not directly subject to the law of value. Capital is thus dependent for its production on the use and transformation of natural conditions of production that to some extent represent natural scarcities, and that the economic system is incapable of preserving intact and in relatively costless form. Degradation of these conditions of production generates rising costs for capitalism, squeezing profits on the cost or supply side: Capitalism is therefore caught up in an economic crisis tendency associated with the underproduction of capital, resulting from its damaging of its own conditions of production: An important part of this argument is the way this is tied to the growth of contemporary radical social movements. It provides a single logical argument that links ecological scarcity, economic crisis, and the growth of new movements for social change. Nevertheless, there are, in my view, some difficulties with this approach which limit its proper field of application. Thus as Rudy, representing this point of view, put it: Should the extent to which a Marxist ecological analysis is perceived as a developed view be determined by the degree in which it feeds into a specific theory of economic crisis? There is a certain economism and functionalism that creeps in when the problem is framed in this way. The obvious presumption is that an economic crisis stemming from ecological causes constitutes an opportunity for the left, a bandwagon to jump on so to speak—and one, moreover, that allows it to build an alliance between a class-based labor movement and the new social movements. It is my contention, however, that there is no such feedback mechanism—at least for capitalism as a whole. As the German Greens have said, the system will recognize that money cannot be eaten only when the last tree has been cut—and not before. In other words, the dangers of a deepening

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ecological problem are all the more serious because the system does not have an internal or external regulatory mechanism that causes it to reorganize. There is no ecological counterpart to the business cycle. The Amazon forest may have provided hardwood timber and other resources for capital, but most of it has until recently been outside what can be called the conditions of production of capitalism. The fifty percent of all species that are believed to reside in the tropical forests and are currently threatened with extinction in a matter of decades, are not only for the most part not incorporated into the global accumulation process, most of them remain undocumented, still unknown to science. If we take the case of the ozone layer, which has been thinned enormously, imperiling the very existence of life on earth, it would clearly be a mistake to try to squeeze this into an analysis of the conditions of productionâ€”as if it were simply a precondition of the economy and not a precondition of life as we know it. The EPA acknowledged the dangers to life and living conditions represented by global warming, but emphasized that in the United States the environmental damage would be most visible in the melting of snow in the mountains, and the like. Where the conditions of production of agriculture were concerned, global warming, it was suggested, might even increase overall agricultural productivity. This lack of a clear connection between environmental damage and damage to the economic conditions of production was used via standard cost-benefit analysis to justify a policy of adapting to global warming as it developed, rather than taking measures to decrease the extent of global warmingâ€”since these would increase the costs of production. It follows that there is no natural feedback mechanism that automatically turns environmental destruction into increasing costs for capital itselfâ€”however much it may be a cost for nature and society. Hence, there is every reason to doubt the inevitability of economic crisis in the near future emanating primarily from such causes. There are also empirical problems, I believe, with this theory of ecologically induced economic crisis. Logically, it is true, rising raw material costs and other costs associated with natural scarcity could undermine profit margins and generate economic crisis. This factor played a role in nineteenth century accumulation crises, as reflected in the classical theory of the tendency of the rate of profit to fall. It is always important to capital that such costs, associated with natural scarcity, be kept down. Yet, there is no evidence that such costs constitute serious, insuperable barriers to accumulation for the system as a whole today. As Marx indicated in his time, the exhaustion of coal mines may eventually increase the cost of coal, but in the meantime production is often boosted by falling energy costs. Government estimates that rely on surveys of business executives indicate that business is concerned about increasing environmental costs, but this type of evidence is not a very convincing basis for arguing that environmental costs are actually squeezing profit margins in the aggregateâ€”and should be taken no more seriously than the unceasing complaints of business executives with regard to wage costs squeezing profits. There are two contradictions of capitalism both economic crisis tendencies, one internal and emanating principally from class struggle, the other external and emanating principally from the undermining of the conditions of production. Ecological Marxism, understood in this way, is clearly an approach that sees the labor-based class struggle playing second fiddle. In this way it arguably divides the movement artificially adding a further theoretical layer to existing divisions, reducing the field of hope. There are certainly localized crises that can be viewed usefully in this way. Rather my intent is to argue that there is a danger that we will develop a Marxist analysis of ecological problems that is too economic, too narrow, too functionalist, and too prone to economic dualismâ€”and of course too undialecticalâ€”to allow us to explore the full scale of the ecological contradiction that capitalism presents. Here it makes sense to return once again to Marx. It might therefore have been possible for Marx to have emphasized the increasing ecological costs and the barriers to accumulation that this crisis of the soil generated. But his emphasis instead was on the metabolic rift, the larger structural ecological problem that this crisis of the soil reflected, which was in his terms irreparable under capitalismâ€”despite the fact that technology, as in the case of synthetic fertilizer, might provide a temporary remedy. Not only did Marx not focus primarily on how the ecological problems that he discerned contributed to economic crisis, but he also did not discuss their direct influence on the revolutionary overthrow of capitalism, which he saw as imminent. It was for him a central issue in the building of

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communist society, which would demand a new relation to nature. Indeed, it was precisely because Marx and Engels placed so much emphasis on the dissolution of the antagonistic relation between town and country as a key to overcoming the alienation of humanity from nature that they tended to see the ecological problem in terms that transcended both the narrow horizons of bourgeois society and the immediate objectives of the proletarian movement. Careful to avoid falling into the trap of the utopian socialists, proposing blueprints for a future society that went too far beyond the existing movement, they nonetheless emphasizedâ€”like Fourier and some of the other utopian socialistsâ€”the need for the movement to address the alienation of nature in the attempt to create a sustainable society. Today ecological crisis looms larger in our vision of anticapitalist revoltâ€”to a degree that Marx did not and could not perceive. But our overall vision of the ecological features of a socialist revolution is scarcely more radical than what Marx himself envisioned, with his idea of the dissolution of the antagonistic relation of town and country and an attempt to overcome the metabolic rift through sustainable production based on a communal society of freely associated producers. When William Morris developed his ideas for the reorganization of relations between town and country in *News from Nowhere* he was knowingly or unknowingly very close to the spirit of Marx. We have no more reason today than Marx did in his day to restrict our analysis of ecological contradictions to what can be incorporated into some specific theory of economic crisis. Economic crisis theory can be overemphasized, even fetishized. Let me give you an example of this. For many years Marxist political economists of various persuasions have engaged in elaborate attempts to explain the imperialistic tendencies of capitalismâ€”that is, the drive of the center of the system to exploit the peripheryâ€”by pointing to various specific theories of economic crisis. The problem of all such perspectives, in my view, is that they miss the point: In other words, imperialism is a necessary product of capitalism as a globalizing force, and to the extent that Marx himself dealt with imperialism it was of course mainly in this sense. Economic crisis can complicate things in certain instances. But attempts to see the whole reality of imperialism through the prism of economic crisis only obscures its essential nature. In the case of ecological degradation we are dealing with a first order, not a second order, problem of capitalism and not just of capitalism. Ecological degradation, like imperialism, is as basic to capitalism as the pursuit of profits itself which depend to a large extent upon it. Nor should the environmental problem be seen largely through the economic prism in the sense that it derives its significance from the extent to which it generates economic crisis for capitalism. But her reasons for advocating change were not in this case economic, though they were consistent with materialism. The ultimate strength of Marxist analysis has never resided chiefly in its economic crisis theory, nor even in its analysis of class struggle as such, but lies much deeper in its materialist conception of history, both human and naturalâ€”understood, as this only truly can be, as a dialectical and endlessly contingent process. This means overcoming in a nonreductive way the split between natural-physical science and social science that has been one of the main alienated intellectual products of bourgeois society. Here I want to refer, by way of conclusion, to the recent death of Stephen Jay Gould, one of the greatest evolutionary thinkers since Darwin. He was, in my view, by any meaningful definition, an ecological Marxist. Guilford Press, , pp. In the context in which he makes the statement quoted here, Rudy attributes the very same criticism of Marx to me. My outlook, however, is quite different, as this article should make clear. Zed Press, , pp. Progress Publishers, , p. Fears of oil scarcity prompted investment that led to better ways of producing oil, and to more efficient engines. Can Technology Save the Planet? For example, his treatment of the tendency of the rate of profit to fall viewed rising raw material costs as a potential factor in a general crisis of profitability.

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## Chapter 4 : Capitalizing on chaos: Climate change and disaster capitalism | ephemera

*This book discusses climate change as a social issue, examining the incompatibility of capitalist development and Earth's physical limits and how these have been regulated in different ways. It addresses the links between modes of consumption, energy regimes and climate change during Fordism and finance-driven capitalism.*

A dried-up riverbed at Huangyangchuan reservoir in Lanzhou, China. Sign up for Take Action Now and get three actions in your inbox every week. You can read our Privacy Policy here. Thank you for signing up. For more from The Nation, check out our latest issue. Support Progressive Journalism The Nation is reader supported: Travel With The Nation Be the first to hear about Nation Travels destinations, and explore the world with kindred spirits. Sign up for our Wine Club today. Did you know you can support The Nation by drinking wine? There is a question from a gentleman in the fourth row. Ad Policy He introduces himself as Richard Rothschild. Like asking a meeting of German central bankers if Greeks are untrustworthy. Chris Horner, a senior fellow at the Competitive Enterprise Institute who specializes in harassing climate scientists with nuisance lawsuits and Freedom of Information fishing expeditions, angles the table mic over to his mouth. The first step to that is to remove these nagging freedoms that keep getting in the way. Claiming that climate change is a plot to steal American freedom is rather tame by Heartland standards. Most of all, however, I will hear versions of the opinion expressed by the county commissioner in the fourth row: But the scientific theories presented here are old and long discredited. And no attempt is made to explain why each speaker seems to contradict the next. In truth, several members of the mostly elderly audience seem to doze off while the temperature graphs are projected. They come to life only when the rock stars of the movement take the stage— not the C-team scientists but the A-team ideological warriors like Morano and Horner. This is the true purpose of the gathering: And the strategy appears to be working. Obama at the Copenhagen summit: Abrupt shifts, when they come, are usually precipitated by dramatic events. Which is why pollsters are so surprised by what has happened to perceptions about climate change over a span of just four years. A Harris poll found that 71 percent of Americans believed that the continued burning of fossil fuels would cause the climate to change. By the figure had dropped to 51 percent. In June the number of Americans who agreed was down to 44 percent— well under half the population. As recently as the year Newt Gingrich did a climate change TV spot with Nancy Pelosi the issue still had a veneer of bipartisan support in the United States. Those days are decidedly over. Today, 70—75 percent of self-identified Democrats and liberals believe humans are changing the climate— a level that has remained stable or risen slightly over the past decade. In sharp contrast, Republicans, particularly Tea Party members, have overwhelmingly chosen to reject the scientific consensus. In some regions, only about 20 percent of self-identified Republicans accept the science. Equally significant has been a shift in emotional intensity. Climate change used to be something most everyone said they cared about— just not all that much. When Americans were asked to rank their political concerns in order of priority, climate change would reliably come in last. For these right-wingers, opposition to climate change has become as central to their worldview as low taxes, gun ownership and opposition to abortion. Many climate scientists report receiving death threats, as do authors of articles on subjects as seemingly innocuous as energy conservation. The effects of this emotional intensity have been on full display in the race to lead the Republican Party. But the effects of the right-wing climate conspiracies reach far beyond the Republican Party. The Democrats have mostly gone mute on the subject, not wanting to alienate independents. And the media and culture industries have followed suit. Five years ago, celebrities were showing up at the Academy Awards in hybrids, Vanity Fair launched an annual green issue and, in , the three major US networks ran stories on climate change. This uneasy silence has persisted through the end of the hottest decade in recorded history and yet another summer of freak natural disasters and record-breaking heat worldwide. In the Alberta tar sands, in the Beaufort Sea, in the gas fields of Pennsylvania and the coalfields of Wyoming and Montana, the industry is betting big that the climate movement is as good as dead. The climate movement

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needs to have one hell of a comeback. For this to happen, the left is going to have to learn from the right. All of this means that the climate movement needs to have one hell of a comeback. Denialists gained traction by making climate about economics: But at a time when a growing number of people agree with the protesters at Occupy Wall Street, many of whom argue that capitalism-as-usual is itself the cause of lost jobs and debt slavery, there is a unique opportunity to seize the economic terrain from the right. This would require making a persuasive case that the real solutions to the climate crisis are also our best hope of building a much more enlightened economic system—one that closes deep inequalities, strengthens and transforms the public sphere, generates plentiful, dignified work and radically reins in corporate power. It would also require a shift away from the notion that climate action is just one issue on a laundry list of worthy causes vying for progressive attention. Just as climate denialism has become a core identity issue on the right, utterly entwined with defending current systems of power and wealth, the scientific reality of climate change must, for progressives, occupy a central place in a coherent narrative about the perils of unrestrained greed and the need for real alternatives. Building such a transformative movement may not be as hard as it first appears. Indeed, if you ask the Heartlanders, climate change makes some kind of left-wing revolution virtually inevitable, which is precisely why they are so determined to deny its reality. They arrived at this analysis by taking a hard look at what it would take to lower global emissions as drastically and as rapidly as climate science demands. Before I go any further, let me be absolutely clear: The heat-trapping gases released into the atmosphere through the burning of fossil fuels are already causing temperatures to increase. If we are not on a radically different energy path by the end of this decade, we are in for a world of pain. But it is not just the atmosphere that we have exploited beyond its capacity to recover—we are doing the same to the oceans, to freshwater, to topsoil and to biodiversity. The expansionist, extractive mindset, which has so long governed our relationship to nature, is what the climate crisis calls into question so fundamentally. The abundance of scientific research showing we have pushed nature beyond its limits does not just demand green products and market-based solutions; it demands a new civilizational paradigm, one grounded not in dominance over nature but in respect for natural cycles of renewal—and acutely sensitive to natural limits, including the limits of human intelligence. These are profoundly challenging revelations for all of us raised on Enlightenment ideals of progress, unaccustomed to having our ambitions confined by natural boundaries. And this is true for the statist left as well as the neoliberal right. It devoured resources with as much enthusiasm as capitalism, and spewed waste just as recklessly: It is true that responding to the climate threat requires strong government action at all levels. But real climate solutions are ones that steer these interventions to systematically disperse and devolve power and control to the community level, whether through community-controlled renewable energy, local organic agriculture or transit systems genuinely accountable to their users. Here is where the Heartlanders have good reason to be afraid: What follows is a quick-and-dirty look at what a serious climate agenda would mean in the following six arenas: For hard-right ideologues like those gathered at the Heartland conference, the results are nothing short of intellectually cataclysmic. Reviving and Reinventing the Public Sphere After years of recycling, carbon offsetting and light bulb changing, it is obvious that individual action will never be an adequate response to the climate crisis. Climate change is a collective problem, and it demands collective action. One of the key areas in which this collective action must take place is big-ticket investments designed to reduce our emissions on a mass scale. That means subways, streetcars and light-rail systems that are not only everywhere but affordable to everyone; energy-efficient affordable housing along those transit lines; smart electrical grids carrying renewable energy; and a massive research effort to ensure that we are using the best methods possible. The private sector is ill suited to providing most of these services because they require large up-front investments and, if they are to be genuinely accessible to all, some very well may not be profitable. They are, however, decidedly in the public interest, which is why they should come from the public sector. Traditionally, battles to protect the public sphere are cast as conflicts between irresponsible leftists who want to spend without limit and practical realists who understand that we are living beyond our economic means. But the gravity of the climate crisis cries out for a radically new conception of realism, as well as a

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very different understanding of limits. Government budget deficits are not nearly as dangerous as the deficits we have created in vital and complex natural systems. Changing our culture to respect those limits will require all of our collective muscleâ€”to get ourselves off fossil fuels and to shore up communal infrastructure for the coming storms. Remembering How to Plan In addition to reversing the thirty-year privatization trend, a serious response to the climate threat involves recovering an art that has been relentlessly vilified during these decades of market fundamentalism: Lots and lots of planning. And not just at the national and international levels. Climate change demands other forms of planning as wellâ€”particularly for workers whose jobs will become obsolete as we wean ourselves off fossil fuels. These workers need to know that real jobs will be waiting for them on the other side. Agriculture, too, will have to see a revival in planning if we are to address the triple crisis of soil erosion, extreme weather and dependence on fossil fuel inputs. Polycultures are also less vulnerable to pests and to being wiped out by extreme weather. Outside the Heartland conference and like-minded gatherings, the return of planning is nothing to fear. We are not talking about a return to authoritarian socialism, after all, but a turn toward real democracy. The thirty-odd-year experiment in deregulated, Wild West economics is failing the vast majority of people around the world. These systemic failures are precisely why so many are in open revolt against their elites, demanding living wages and an end to corruption. Rather, it adds to them an existential imperative. Reining in Corporations A key piece of the planning we must undertake involves the rapid re-regulation of the corporate sector. Much can be done with incentives: But we are also going to have to get back into the habit of barring outright dangerous and destructive behavior. That means getting in the way of corporations on multiple fronts, from imposing strict caps on the amount of carbon corporations can emit, to banning new coal-fired power plants, to cracking down on industrial feedlots, to shutting down dirty-energy extraction projects like the Alberta tar sands starting with pipelines like Keystone XL that lock in expansion plans. The devastating impacts of free trade on manufacturing, local business and farming are well known. But perhaps the atmosphere has taken the hardest hit of all. The cargo ships, jumbo jets and heavy trucks that haul raw resources and finished products across the globe devour fossil fuels and spew greenhouse gases.

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## Chapter 5 : Capitalism vs. the Climate | The Nation

*Capitalism and climate change: theoretical discussion, historical development and policy responses. [Max Koch] -- "This book discusses climate change as a social issue, examining the incompatibility of capitalist development and Earth's physical limits and how these have been regulated in different ways.*

Christian Parenti New York: A key conclusion of the new IPCC report is that sea-level rise has accelerated in recent years. Yet, before many, many more people become climate refugees as their communities become submerged, most people on the planet will be confronted by extreme weather events. Record-breaking hot months now occur five times more frequently than they would in a stable, unchanging climate; these heat waves cause droughts, wild fires, proliferation of contagious diseases, widespread extinctions, poor harvests, and, inevitably, loss of life. As atmospheric carbon dioxide levels rise due to anthropogenic climate change, average temperatures will also continue to rise causing weather patterns to become less and less stable. Rainy seasons throughout the world, for example, which used to occur more consistently due to the interconnected planet climate systems, have now become erratic, prone to extreme shifts, which entail positive-feedback loops accelerating climate change itself. Climate Change and the New Geography of Violence. The global economy as it currently stands cannot grow and prosper without an increasing supply of numerous critical resourcesâ€”but acquiring these materials will pose an ever-greater threat to the safety and stability of human society and the natural world. Only if we abandon the race altogether, focusing instead on developing renewable resources and maximizing efficiency, can we hope to avoid calamity on a global scale. Once we have reviewed his work as a whole, we can better judge such putative solutions. In Tropic of Chaos: It is from this geographical region of the planet that Parenti draws his alarming prognosis of the doleful portents the catastrophic convergence has already reaped and will continue to reap from climatically triggered social breakdowns. As Parenti rather starkly puts it at the end of part one: In the second part of Tropic of Chaos, Parenti focuses upon Africa, in particular the legacies of post-Cold War militarism and neoliberal economic restructuring in East Africa, which are being imbricated with the deleterious effects of climate change. Flooded with cheap weapons provided by Cold War competitors, several East African countries now confront national disintegration. Parenti concludes the second part with what appears to this reader as a very realistic speculation: In the third part of his text, Parenti takes his readers to Asia where water shocksâ€”droughts and floodsâ€”in Afghanistan, Pakistan, Kyrgyzstan, and India are becoming the new normal. Climate stress, in places like Afghanistan, fuels violence. Parenti explains this causal relationship by describing what the catastrophic convergence looks like in Afghanistan: In Kyrgyzstan and India, neoliberal economic shock therapy provides the backdrop to climate change. Neoliberal reforms removed from agriculture many government subsidies in these countries thereby trapping farmers in a downward economic cycle due to the extensive debt they incur in order to invest in well and irrigation systems required, in large part, because of climate-change-precipitated droughts. The internal wars in Afghanistan, Kyrgyzstan, and India provide a stark example of the catastrophic convergence. Parenti views the introduction of climate change into the already toxic mix of poverty, violence, Cold-War-inherited counterinsurgency, and neoliberalism as likely to promote ever greater social disintegration, and thus makes societal collapse in many of these nations of Asia a realistic possibility. In Latin America, rapid urbanization, weather shocks, severe water stress, and displaced populations are the outcomes of the catastrophic convergence. Essentially, Parenti views the social polarization produced by neoliberalism in Brazil and Mexico as exacerbating deprivation, and he sees climate change converging with the legacies of repression and criminality in each state to produce a vortex of social anomie and violent class apartheid. In the United States Parenti sees an authoritarian, crypto-racist state encapsulated by the war on immigrants that projects a menacing sadism as its chief mechanism of control and promotes fear, resentment, and hatreds that are fundamentally changing the dynamics of our society. Parenti concludes Tropic of Chaos with two basic proposals for dealing with the catastrophic convergence in the

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United States: Both of these are to be engaged primarily through political and technological avenues: Such tepid solutions are the only that remain viable, according to Parenti, because there is no longer enough time, nor the likelihood even, for large-scale fundamental social change. Parenti forcefully writes, The fact of the matter is time has run out on the climate issue. Either capitalism solves the crisis, or it destroys civilization. Capitalism begins to deal with the crisis now, or we face civilizational collapse beginning this century. We cannot wait for a socialist, or communist, or anarchist, or deep-ecology, neoprimitive revolution; nor for a nostalgia-based localista conversion back to the mythical small-town economy of preindustrial America as some advocate. But surely the two solutions Parenti offers in the face of the terrible probability of civilizational breakdown are themselves, in light of his own work, insufficient to genuinely help us avoid the worsening collapse he anticipates if those solutions are not implemented. How, for example, is the U. EPA to be spurred to implement the drastic reduction of greenhouse gas emissions, which, as Parenti points out, would require the closure of coal-fired power plants, and dramatic restrictions on fossil fuel extraction, to name only the two most necessary actions, if not by the construction of a mass revolutionary movement to pressure the executive of the ruling class to such radical implementation? Furthermore, such a movement, if it is to develop in the United States, is already structurally insufficient as anthropogenic climate change is an international crisis. The evidence to back up such an analysis is confirmed by almost twenty years of fruitless international negotiations specifically meant to address climate change. Parenti must be aware of the overwhelming evidence of the many failures regulatory schemes have endured in the last twenty years when seeking to even slightly ameliorate the externalities that capitalist production necessarily produces. Witness the tiresome charade we must repeatedly endure whenever the United Nations attempts to address climate change. In an oligarchic society wherein corporate dominance of the political system is nearly total, I find waiting for the abusers to change less compelling and less attractive frankly than attempting to build anti-capitalist resistance movements intentionally designed to confront the abusers and remove them permanently from the scene of their many crimes. The many struggles to resist capitalism that have been and are being waged throughout the globe that Parenti clearly cherishes, fraught with limitations though they be, hold out greater prospects for the type of transformative change the catastrophic convergence requires if we are to have a world left to fight for at all. Tropic of Chaos is an important book. In a growing body of literature concerned with the contemporary environmental crisis of global capitalism, it presents, in jargon-free prose readily accessible to nonacademic activists, a disturbing portrait of an unfolding planetary crisis. The friendly, yet critical attention here to the weakness of its recommendations in no way diminishes the profound insights into our present that the book does offer. Donald Hanover is a professor of philosophy at Holyoke Community College.

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## Chapter 6 : Reflections on Crisis: Capitalism, Climate Change, and Resistance | New Politics

*"This book discusses climate change as a social issue, examining the incompatibility of capitalist development and Earth's physical limits and how these have been regulated in different ways. It addresses the links between modes of consumption, energy regimes and climate change during Fordism and finance-driven capitalism"*

In the short term, however, addressing climate change has become a boom industry in its own right, a source of substantial growth in a variety of sectors. As a result, far from experiencing the constraint predicted by ecological Marxists, in the present capitalism is actually able to harness crises to which it contributes as a source of further expansion. The long-term implications of this dynamic, however, are unclear, demanding further investigation. This thesis stands in stark contrast to much of the critical commentary on climate policy circulating within the public sphere at present. Mainstream efforts to address climate change by the international community are commonly contested by critics on both ends of the political spectrum, who similarly claim "albeit for dramatically different reasons" that sustained economic growth within a capitalist framework is likely incompatible with the systemic societal changes necessary to mitigate the climate impacts predicted by such authoritative bodies as the Intergovernmental Panel on Climate Change IPCC. From the right, for instance, Robinson, a researcher with the ultraconservative American Enterprise Institute, asserts: Mitigation would have an enormously negative effect on developed economies and would cause a serious setback for emerging nations. As Foster and coauthors contend: It is becoming increasingly evident that capitalism, given its insatiable drive for accumulation, is the main engine behind impending catastrophic climate change. Of course, the social and environmental dynamics operating in this model should not be viewed as separate but intricately entangled in a dialectical relationship pace Moore. Mainstream advocates of climate change mitigation policy, on the other hand, increasingly contest claims such as these by arguing that successfully addressing climate change is in fact compatible with sustained economic growth. The influential Stern Review, for instance, calculates that atmospheric carbon concentrations can be stabilized at what the authors consider a manageable level of ppm a quantity considered excessive by others; see e. Even this loss, however, would be ostensibly offset by the creation of new markets in the long term more on this below, and the Review thus maintains: The world does not need to choose between averting climate change and promoting growth and development. Tackling climate change is the pro-growth strategy for the longer term, and it can be done in a way that does not cap the aspirations for growth of rich or poor countries. Executive Summary, i-ii Implicit in this statement is an even stronger position, namely that addressing climate change is not merely compatible with economic growth but constitutes a form of economic growth itself. Such characterizations of the climate crisis as a new business opportunity have multiplied in recent years. She identifies the response to Hurricane Katrina in New Orleans in the wake of which the public school system was largely privatized, among other neoliberal measures and the tsunami in Asia after which numerous formerly-public beaches were expropriated for development by large hotel chains and local fisher people displaced as paradigmatic examples of this strategy. The production of monetary and financial turbulence, whether threatened or real, exercises an undeniable political leverage. It enables the international financial institutions to force through the privatization of state industries, welfare and infrastructure, and to further impose forms of debt-financing. Indeed, the Stern Review predicted precisely this in its conclusion, asserting: Action on climate change will also create significant business opportunities, as new markets are created in low-carbon energy technologies and other low-carbon goods and services. These markets could grow to be worth hundreds of billions of dollars each year, and employment in these sectors will expand accordingly. Summary of Conclusions, viii While Klein herself alludes to the connection between climate change response and disaster capitalism at several points, she does not develop the analysis. Likewise, two recent articles analyzing the growth of carbon offset markets briefly note this same connection but do delve into it either Paterson, The link has also been discussed in a handful of popular media sources e. Funk, ; Thompson, In

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what follows, then, I describe the various ways in which the international climate change response can be seen as a form of disaster capitalism. I then provide an overview of the recent exponential growth of funding to combat climate change, particularly in terms of the rise of markets for trade in carbon emissions credits over the past several years, during which time the climate crisis has become what White and colleagues Following this, I describe the ways in which climate change finance has become increasingly tied up with neoliberal capitalism in this period, emphasizing mitigation through market-based mechanisms. This research documents numerous cases in which natural resources previously externalized within conventional commodity markets are themselves commodified as a source of further profit through enclosure and sale within neoliberal markets. Yet, the majority of the neoliberal nature literature describes attempts to create markets for the sustainable use of natural resources. In this respect, climate change response is best considered as an aspect not of neoliberal natural resource management generally but of neoliberal conservation in particular. As researchers increasingly observe, the global effort to preserve natural resources from extraction and use has itself become progressively neoliberalized over the past several decades e. And while this dynamic has been alluded to within the neoliberal conservation literature Brockington et al. It is this dimension of harnessing the image of climate change as an impending disaster to promote new forms of neoliberal governance and market enclosure that my analysis seeks to highlight. Researchers have documented this process, for instance, in the practice of ecotourism, which is able to generate greater revenue in the form of heightened admission charges as its objects whales, rainforest, etc. As I describe below, climate change response via carbon markets displays much this same dynamic. Climate change stands somewhat distinct from the majority of crises Klein includes in her analysis, which tend to be concrete, short-term, and relatively localized phenomena such as hurricanes, tsunamis, and wars whose impacts are immediate and easily linked with their cause. By contrast, climate change is characterized by great uncertainty concerning both its repercussions and the timeline over which these will occur IPCC, Moreover, most of serious consequences that do occur will likely unfold incrementally, over substantial periods of time, and it may be difficult to directly link localized impacts with such a diffuse, global source. Despite these ambiguities, however, climate change is increasingly framed as a disastrous crisis, the consequences of which will likely be devastating if not immediately addressed in a substantial manner Gore ; Stern et al. Finally, it is important to acknowledge that the effort to exploit climate change as a business opportunity remains the minority response among capitalists, the majority of whom continue to ignore the phenomenon or deny that it exists altogether, as myriad critics lament. This of course reveals that capitalism is not a monolithic entity but a complex system containing diverse and divergent interests and forces. Yet, to the extent that influential actors within the capitalist system do take the prospect of an impending climate crisis seriously it is by and large within the disaster capitalism frame “ and this response, as described further below, is increasing by leaps and bounds at present. It is to this response that I now turn. Let us consider the second of these first. These mechanisms arose largely due to demands from wealthy countries that displacing their emissions to poorer societies by paying the latter to reduce their own emissions would be more efficient than pursuing reductions at home, where the cost would be much greater Bumpus and Liverman, Since the Protocol entered into force in , the growth in global carbon markets has been astronomical. Within the carbon market, the European Trading Scheme ETS constitutes by far the largest trading carbon mechanism at present. Bumpus and Liverman Yet, even in the larger carbon market, in which both national governments and transnational financial institutions play a central regulatory role, a strong trend towards neoliberalization can be found. In this, it is important to acknowledge that neoliberalization does not necessarily equate only with privatization per se, as critics sometimes contend. Rather, as Castree among others points out, neoliberalization characteristically entails not so much deregulation as reregulation, shifting the locus of resource governance from states to non-state actors, including upwards to transnational financial institutions and downwards to nongovernmental organizations. Within neoliberal markets, however, the state is still required to create and sustain the overarching regulatory framework within which market actors engage in ostensibly free forms of exchange Foucault, ; Peck, In this respect, several researchers have observed

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within global climate policy in general a strong trend towards neoliberalization over time Oels, ; While et al. Prior to the s, Oels describes, global warming was primarily construed as a threat to human life and addressed for the most part through a state-centered command and control approach emphasizing prevention via top-down mechanisms. Following the crystallization of the international sustainable development agenda in the late s, however, climate policy went increasingly neoliberal in its reframing of global warming as principally a threat to continued economic growth, consistent with discussion of environmental problems within the sustainable development movement in general Escobar, Then, While and colleagues In short, the authors claim: Carbon governance post-Kyoto has thus resulted in a complex and multi-scalar system for controlling carbon emissions, involving a degree of transfer of regulatory power upwards to the supranational level and outwards to markets and nonnational state actors, but also a continued emphasis on the management of carbon flows by nationstates This would appear to be consistent with the wave of neoliberal marketization. According to Harvey, this strategy entails four interrelated movements: Bumpus and Liverman find all of these attributes in global carbon markets as currently structured. Thus, Bumpus and Liverman In addition, the authors note that over time these ostensibly government-directed markets have become increasingly infiltrated by private actors, describing: Enthusiasm for the carbon markets is increasingly driven by market actors who see possibilities for both direct investment in offset projects and indirect opportunities for commodification in secondary markets, such as verification of reductions, derivatives, and insurance associated with trading in emissions. Bumpus and Liverman, As opposed to resources whose use can be bought and sold within markets, the resources upon which carbon control like other conservation measures is based must by definition be preserved in situ, and thus creative means must be found to ascribe exchange value to these resources without granting access to their use. Carbon markets, which derive their value from predictions concerning the future effects of increased atmospheric carbon concentrations, clearly constitute just this type of exchange in financialized, derivative nature. Financialization of conserved nature via climate change response is currently being taken to new extremes as well, however. First, beyond discrete carbon markets such as the ETS or CDM, we are witnessing the development of more general fora for exchange in derivatives of these markets and other carbon products, including the already-established Chicago and European Climate Exchanges the latter based in London and similar emerging initiatives in other diverse locations including Australia, China, and Montreal Bumpus and Liverman, ; While et al. In a similar vein, Cooper Echoing the disaster capitalism thesis again, Cooper Many of these trends are so recent that, to my knowledge, they have not yet been documented within peer-review sources. In this spirit, Funk While aimed at conventional commodity production, all of these endeavors are clearly founded in a similar derivative nature strategy as the various financial mechanisms detailed above. Another curious aspect of the disaster capitalism response may involve ignoring or even actively working to discredit predictions of the impending climate crisis, in order to harness both current sources of profit potentially compromised by a serious mitigation response and, moreover, to let the crisis unfold in anticipation of the new sources of profit thereby created. The disaster-capitalism complex does not deliberately scheme to create the cataclysms on which it feeds though Iraq may be a notable exception , but there is plenty of evidence that its component industries work very hard indeed to make sure that current disastrous trends continue unchallenged. In this way, rather than viewed as opposing processes, attempts both to explicitly harness the climate crisis as a source of profit and to ignore or deny it may, at times, be Janus-faced dimensions of a similar disaster capitalism response. Conclusion In the above, I have contended that the contemporary international response to climate change concerns, led by the global trade in carbon credits, increasingly functions as a form of disaster capitalism, exploiting the climate crisis as both a marketing opportunity and justification to expand neoliberal markets and regulatory mechanisms. In the process, carbon markets clearly seek to provide a number of the temporal, spatial, and environmental fixes described by Harvey , and Castree Future research would be useful to assess particular dimensions of this process, exploring how specific carbon markets or offset projects seek to accomplish these various fixes and the extent to which they succeed in this aim. In addition, research is needed to investigate the key question

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raised by this analysis: To what extent does all of this actually contribute to effectively mitigating the climate change impacts it purports to address? After all, critics question whether carbon markets truly effect a net emissions reduction or merely conceal continued carbon production through sleight-of-hand accounting. Far from reducing emissions, Lohmann contends, In their decade of existence. A striking example of the ways in which carbon markets may not merely fail to reduce but actually increase greenhouse gas emissions, despite the surface appearance of reductions, is in their financing of hydroelectric dams as an offset mechanism. As noted above, hydro projects are the most popular mechanism currently financed by the CDM. While hydro power, as mentioned, is commonly considered clean energy with zero carbon emissions by dam builders and their advocates, a growing body of research demonstrates that dams are in fact significant greenhouse gas emitters, primarily through releases of methane from vegetation submerged beneath their reservoirs as well as the energy expended in their construction. Hence, employing hydro dams as offset projects “an increasingly common strategy around the world” has helped to restimulate a dam building industry that was in steep decline a decade ago see Fletcher, b , but it may be significantly increasing carbon emissions on a global scale as well. Dynamics such as this demand further investigation in order to assess the extent to which the swiftly growing global campaign to address climate change through neoliberal carbon market mechanisms is in fact capable of contributing to an effective resolution of the impending crisis rather than merely stimulating capitalist expansion. Armed with this information, we will be much better positioned to contribute to deliberations concerning the future of climate change policy in relation to disaster capitalism. This is particularly pertinent given the current global economic recession, which has provoked substantial contraction in funding for environmental initiatives generally and given rise to widespread predictions that the era of neoliberalism may be drawing to a close e. Disaster capitalism, of course, has been a core neoliberal strategy, serving to facilitate accumulation via privatization and market liberalization Klein, In addition, the recession may adversely impact the ability to generate funds to finance carbon trading as has already occurred to some degree for the CDM and VCO markets, described above. These prospects, and their implications for the potential to effectively address climate change through carbon markets and other forms of financialization, demand further study as well. Bloomberg [ [http:](http://) How the market met its match.

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## Chapter 7 : The Great Climate Change Market - Books & ideas

*Climate change is, in the words of the Stern Review on the Economics of Climate Change, "the greatest example of market failure we have ever seen." By all rights, this reality should be.*

Bolivia , Global This article is from a keynote address presented at Manifesta in Ostend, Belgium on September 19, Humanity today is confronted with what might be called the Great Capitalist Climacteric. From a social standpoint, it raises issues of historical transformation in the face of changing conditions. It is a time of unusual danger. It refers both to the objective necessity of a shift to a sustainable society and to the threat to the existence of Homo sapiens as well as numerous other species if the logic of capital accumulation is allowed to continue dictating to society as a whole. It is thus exceedingly difficult to foresee the consequences if the human-made climate forcing continues to accelerate. More concretely, staying within the carbon budget means that global carbon emissions must at present be cut by around 3 percent a year, and in the rich countries by approximately 10 percent per annum—moving quickly to zero net emissions or carbon neutrality. The failure of capitalism to implement the necessary cuts in carbon dioxide can be explained by the threat that this poses to its very existence as a system of capital accumulation. As a result civilization is faced by a threat of self-extinction that over the long run is as great as that posed by a full nuclear exchange—and in a process that is more inexorable. This is a view that the World Bank has subtly encouraged. If major sea level rise engulfing islands and threatening coastal cities throughout the world and displacing hundreds millions of people is to be avoided, society needs to aim at reaching parts per million ppm of atmospheric carbon down from the present ppm by , which would require cutting net carbon emissions by about 6 percent per annum globally. The world economy has already crossed or is on the brink of crossing a whole set of planetary boundaries, each one of which represents a planetary emergency in its own right, including ocean acidification, loss of biological diversity, the disruption of the nitrogen and phosphorus cycles, disappearance of fresh water, land cover change particularly deforestation , and growing pollution from synthetic chemicals leading to biomagnification and bioaccumulation of toxins in living organisms. This points to the need for truly massive, accelerated social change exceeding in scale not only the great social revolutions of the past, but also the great transformations of production marked by the original Agricultural Revolution and the Industrial Revolution: Natural science can take us only so far on these issues. Since the source of the Great Capitalist Climacteric lies in the historical constitution of human society, necessitating a social revolution, we must turn to social science as a guide. Yet, the dominant social science has as its underlying premise—structuring its entire frame of analysis—the notion that the critique of capitalism is off limits. Those who swallow whole the notion that there is no future beyond capitalism are prone to conclude—in defiance of the facts—that the climate crisis can be mitigated within the present system. The greatest obstacle before us, she insists, is not the outright denialism of the science by the far right, but rather the social denialism of the dominant liberal discourse, which, while giving lip service to the science, refuses to face reality and recognize that capitalism must go. It is therefore the socialist tradition, building on the powerful foundations of historical materialism—and returning once more to its radical foundations to reinvent and re-revolutionize itself—to which we must necessarily turn in order to find the main critical tools with which to address the Great Capitalist Climacteric and the problem of the transition to a just and sustainable society. A period of self-criticism within Marxian theory, commencing in the s and developing over decades, eventually gave rise to a revolution in its understanding of social-ecological conditions. These critical breakthroughs were to generate new strategic insights into revolutionary praxis in the Anthropocene. Socialist theorists proceeded to dig into the very foundations of classical historical materialism and its value-theoretical framework. However, in capitalism, conceived as a specific mode of production, this characteristic of production in general takes a more alienated form, as the majority of workers are estranged from the means of production, and particularly the land, and are thus proletarianized—able to survive only by

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selling their labor power. All value, the classical political economists argued, came from labor. But classical-liberal political economists saw this as a universal, trans-historical reality, while Marx, in sharp contrast, conceived it as a historically specific one, confined to capitalism. As the socialist ecological economist, K. In Marx encountered what amounted to an early ecological system perspective, in the extension of the concept of metabolism *Stoffwechsel* to the interconnected relations of plants and animals, through *Mikrokosmos*, written by his close friend and political associate, the socialist physician-scientist Roland Daniels. He noted that the essential soil nutrients, such as nitrogen, potassium, and phosphorus, were shipped in the form of food and fiber to the new densely populated urban-industrial centers, where they contributed to the pollution of the cities, and were lost to the soil. Hence, Liebig and Marx both referred to industrial capitalist agriculture as a robbery system, leaching the soil of its nutrients. Britain in this period was forced to make up for its robbing the soil of its nutrients by imperialistically importing bones from the Napoleonic battlefields and the catacombs of Europe, and guano from Peru, in order to obtain the natural fertilizer to replenish English fields. Yet, capitalism, as a historically specific form of production, systematically alienates workers from the means of production the land, nature, tools thereby proletarianizing labor, and making possible capitalist exploitation and accumulation. As he wrote in *Capital: From the standpoint of a higher socio-economic formation, the private property of particular individuals in the earth will appear just as absurd as the private property of one man in other men. Even an entire society, a nation, or all simultaneously existing societies taken together, are not the owners of the earth. They are simply its possessors, its beneficiaries, and have to bequeath it in an improved state to succeeding generations, as boni patres familias [good heads of the household].* In the first form of ecological crisis, depicted in *Capital*, the focus was on natural resource scarcity. Here the problem is how increasing scarcities of resources and environmental amenities in general lead to enhanced ecological costs, thereby squeezing profit margins. Civil War, the role of resources in elevating the cost of constant capital in his theory of the tendency of the rate of profit to fall, and in his discussions of the need of capital to conserve constant capital. Increasing resource costs with the degradation of the environment can create huge problems for capitalist accumulation. Here it is evident how imperialism, in keeping the price of internationally sourced raw material prices low, helps promote capital accumulation in the center of the system. Yet, there is also to be found in Marx a theory of ecological crisis proper, or a crisis of sustainable human development, going beyond the value calculus of the system itself—as exemplified by the theory of metabolic rift. Thus such phenomena as desertification and deforestation—both of which were discussed by Marx—have implications for sustainable human development but do not enter directly into the value calculation of the commodity system. A metabolic rift that disrupts biogeochemical cycles may be fully compatible with continued accumulation. In its relative insulation from the environmental degradation that it systematically creates everywhere around it, capitalism is unique among modes of production. In fact, this is one thing that makes capitalism different from previous societies. It has the ability to continue with its competitive, profit-driven pattern of accumulation despite the damage this does to natural conditions. Most of the concrete research inspired by Marxian theories of ecological crisis in recent years has focused on the theory of metabolic rift, since it is the crisis of sustainable human development that defines the current planetary emergency. Moreover, the metabolic rift perspective has provided an understanding of systemic environmental changes not reducible simply to issues of scale and carrying capacity or to the economics of the system—thereby probing new dimensions of the problem. For example, the metabolic rift allows us to understand more fully the implications—of which Marx was already critical in the nineteenth century—of the attempts of the system to accelerate the growth rates of animals in factory-style production, by removing them from their ecosystems, changing their food intake, breeding, and so on. Animals are decomposed, their various body parts manipulated, converted into mere processes of production to be commodified to the nth degree. First, the problem threatening the global environment is the accumulation of capital under the present phase of monopoly-finance capital, and not just economic growth in the abstract. That is, issues of the qualitative nature of development as well as quantitative development are involved. This raises the question of

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the ecological value form associated with capitalism in its monopoly-finance phase, geared to the promotion of economic and ecological waste as a stimulus to accumulation. Today the rich economies are well developed and capable of satisfying the material needs of their populations, and of emphasizing qualitative human development. Capitalism, however, requires continual value expansion and commodity consumption, with increasing throughputs of energy and materials. It is this irrational system of artificially stimulated growth, economic waste, financialized wealth, and extreme inequality that needs to be overturned if we are to create a society of ecological sustainability and substantive equality. If economic growth in the wealthy countries continues as at present—even by the standards of our current period of relative economic stagnation—there is very little or no chance of avoiding breaking the world climate budget with disastrous global consequences. It is the growth in the scale of the economy, and the destructive tendencies of our ecologically inefficient, technologically destructive society, geared to roundabout production—whereby plastic spoons are made in China and shipped to the United States where they have a lifetime use of a few minutes before reentering the waste stream, generating all sorts of toxic chemicals in the process—that are threatening the biogeochemical processes of the entire planet. Second, capitalism is suffering at present from an epochal crisis—both economic and environmental. This is manifested in overaccumulation, stagnation, and financialization, on the one hand, and ecological rifts and disruptions, both within each and every ecosystem and on the level of the planet as a whole, on the other. What we have called ecological crisis proper is largely invisible to the value accounting of the capitalist system, and is systematically given a lower priority in relation to economic imperatives. Society is constantly told that the solution to economic stagnation is economic growth by any means: Yet such an economic solution—which is beyond the power of the system to effect in a long-term, stable way, but only on a temporary, ad-hoc basis—would be fatal to the planetary environment, which requires less, not more expansion of the economic treadmill. The epochal crisis of economy and ecology within the capitalist system is thus likely to continue, with both fault lines widening, as long as the logic of capital prevails. This conflict between economic and ecological objectives is not a contradiction of analysis, but of the capitalist system itself. Third, if accumulation or economic growth is to be halted in the rich countries, even temporarily, out of sheer ecological necessity, this would require a vast new system of redistribution. It is by creating a society directed to use value rather than exchange value that we can find the resources to develop a world that is sustainable because it is just, and just because it is sustainable. Society will need to be reordered, as Epicurus said, and Marx concurred, according to the principle of enough—that is, through a rich development of human needs, applicable to everyone. Nature, in the new economics, will be recognised as the ultimate source of wealth. Fifth, the hoped for revolutionary change can only occur through human agency. Although it is widely recognized that the world needs an ecological and social revolution, the question remains: From whence and by what agency will such a revolution arise? At the ground level, economic and ecological crises are becoming increasingly indistinguishable. Food crises, land grabs, electricity shutdowns, water privatization, heightened pollution, deteriorating cities, declining public health, increasing violence against oppressed populations—are all converging with growing inequality, economic stagnation, and rising unemployment and underemployment. In South Africa, for example, the class struggle is now as much an environmental as an economic struggle—already exhibiting signs of an emerging environmental working class. A revolutionary struggle in these circumstances will need to occur in two phases: Over time this should create the conditions for a second, more decisive, ecosocialist phase of the revolutionary struggle, directed at the creation of a society of substantive equality, ecological sustainability, and collective democracy. These would include measures like: Such radical change proposals can be multiplied, and would need to effect all aspects of society and individual human development. The rule in the ecodeмократic phase of development would be to address the epochal crisis ecological and economic in which the world is now caught, and to do so in ways that go against the logic of business as usual, which is indisputably leading the world toward cumulative catastrophe. The logic of the ecodeмократic phase of the struggle, if it were carried out fully, would create the conditions for an ecosocialist phase in which the

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mobilization of the population on their own behalf, and the cultural and economic changes that this brings about, would give the impetus to the creation of a society of from each according to ability, to each according to need. The necessary social and ecological planning would start from local needs and local communities and would be integrated with larger political-executive entities responsible for coordination and implementation in relation to these needs. Such a society would be democratic in the classical sense of the wordâ€”rule of society by the people, the associated producers. In , the British Marxist historian E. Today making war on the planet is fought as a means to the end of capital accumulation, in which the limits of the earth itself have become invisible to the narrow value calculations of the system. Turning this economics of exterminism around, and creating a more just and sustainable world at peace with the planet is our task in the Great Capitalist Climacteric. If we cannot accomplish this humanity will surely die with capitalism. The prophesy of all defenders of the current order over the last century will then be fulfilled. Capitalism will mark the end of human history by bringing to an end human civilizationâ€”and even human existence. The Great Capitalist Climacteric presents us with a fatal choice: System Change Not Climate Change! Methuen, , 99â€” Kates and Ian Burton, eds. University of Chicago Press, , vol.

### Chapter 8 : Holdings : Capitalism and climate change : | York University Libraries

*Parenti's fifth category of analysis, climate change, is of course the most recent addition to the global disaster team he has assembled, and, as Parenti avers, it "now joins these [other] crises, acting as an accelerant [or as] the Pentagon calls it a 'threat multiplier'" (9).*