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#### Energy poverty forces utilization of biomass. This causes systemic pollution and disease, trades-off with human development, deforestation and emits black carbon that fuels climate change and Arctic ice melting.

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Energy Justice ("EJ") conjugates justice with energy. Justice is the first virtue of social institutions;1 energy is a fundamental need and the driving determinant of human progress. 2 Energy justice seeks to apply basic principles of justice as fairness to the injustice evident among people devoid of life sustainable energy, hereinafter called the energy oppressed poor ("EOP"). EJ is an integral and inseparable dimension of the universally accepted foundational principle, or grundnorm, 3 of international law and policy: Sustainable Development ("SD"). The original formulators of the concept, the World Commission on Sustainable Development, also known as the Brundtland Commission, pointed to the abject poverty of the developing world, and articulated a distributional principle which they called sustainable development. They reasoned that SD would meet the basic needs of the world's poor by providing economic and social development without which environmental protection could not be achieved. 4 This distributional principle of SD is now re-affirmed and expressed in the most widely accepted energy 5 and environmental treaties 6 and declarations. 7 EJ, however, has been egregiously ignored in international discourse and negotiations about energy and the environment. The present article impugns such global malfeasance. The facts about energy justice are distressing. A disturbingly large swath of humanity is caught in a time warp. Between 2 and 2.5 billion people, amounting to nearly a third of the world, rely upon biomass generated fire as their principal source of energy. These fires are made by burning animal dung, waste, crop residues, rotted wood, other forms of "bad" biomass, and raw coal. Unlike the rest of the world, the other third live without access to energy generated lighting, space heating, cooking, and mechanical power. They suffer from grinding poverty, lamentable diseases, lack of safe drinking water and sanitation, nonaccess to education, and barely experience economic and social development. Moreover, the biomass-generated fire they rely upon is an inadequate source of energy. It does not provide the kind of exogenous energy required for sustainable human development. Fire can be used for cooking and heating but fails to supply the majority of other basic energy needs. Fire does not power water pumps, grinding mills, vehicles, or agricultural equipment. Further, it does not provide clean lighting, water filtration, or more generally help create the goods and services required for food, clothing, and shelter. In responding to this challenge, the nations of the world and the United Nations ("UN"), arrived at an obvious, rational, and integrated application of SD. In 2000, they agreed on the Millennium Development Goals ("MDGs") and Millennium Development Project ("MDP"). The objectives of the MDGs and MDP are to halve global poverty and hunger, increase access to safe water and sanitation, provide primary education, and improve gender equality. They further seek to reduce child and maternal mortality by sixty-six percent, and reverse the growth of malaria, HIV/ AIDS, and other major diseases. The target year for achieving these goals is 2015.8 Two aspects of the MDGs are worthy of special notice. First, they require access to energy, and second, they are a prerequisite for dealing with global warming. The MDGs cannot be satisfied without access to energy. 9 First, the goal of reducing poverty depends on the availability of energy because even the most rudimentary forms of income-generating activities, like agriculture and small businesses, need energy to power machines for milling or grinding, for transportation to market goods and services, for telecommunications, and for education. Second, the goal of reducing hunger requires that more food be grown and distributed. Most forms of irrigation require energy to power water pumps, as well as for machines that harvest crops. Processing food requires energy, as does transportation and distribution. Third, water treatment plants that provide safe drinking water require energy, and hospitals need energy for refrigeration of vital medications and vaccinations. Finally, in order to provide primary education, schools require energy for lighting and heating, and students need lighting at home to do their homework. It seems almost obvious that the MDGs, as an instrument of SD, should concentrate on the developmental objectives of the EOP. The environmental and global warming implications of the MDG are equally clear. It empowers and enables healthier, more educated peoples, including women, to adapt to and mitigate global warming. There is no doubt that healthier, more educated peoples, are better able to combat global warming than an ill educated population dying from illness, disease, hunger and malnutrition. The MDGs should be used to further SD by fulfilling the developmental objectives of the EOP as a necessary first step in meeting their environmental and global warming challenges. Particularly during the last five to ten years, however, the international agenda has been dominated by fervent and dedicated global warming crusaders and blinkered decision-makers from the developed world, who appear anaesthetized to the plight of the EOP. Consequently, the bulk of development assistance has been funneled toward reducing carbon dioxide and other greenhouse gas ("GHG") emissions at the expense of the MDGs. For example, Secretary Clinton recently confirmed that the U.S. Agency for International Development's ("USAID") key focus on development assistance for over a decade has been on environmental programs that have reduced growth in GHG emissions. 10 Given that the EOP hardly emit any GHGs, left unsaid is the stark fact that those USAID resources are not available for the MDGs. The obvious result is that international resources for achieving the MDGs are drying up. A recent report of the UN Development Program ("UNDP") diplomatically emphasized this point. The report points out that economic growth, eradication of poverty, and the MDGs remain the highest priorities of developing countries, but that the focus of world leaders on reducing GHG emissions may constrain those priorities and efforts. 11 Climate change negotiations have ignored the EOP. In the most recent chapter of climate change negotiations under the UN Framework Convention on Climate Change ("UNFCCC") at Copenhagen in December 2009, the world's decision-makers, while paying lip service to SD, demonstrated once again that they remain impervious to the EOP and their lament of disease, public health problems, lack of safe drinking water, non-access to education, sickness, death, and economic deprivation that is not attributable to carbon dioxide. Consistent with their preoccupation with GHG reductions, world leaders continued to ignore the energy-based problems afflicting one-third of the world's population, which are caused by the absence of modern sustainable energy. The Copenhagen Accord stated in passing that "Developing countries, especially those with low emitting economies should be provided incentives to continue to develop on a low emission pathway."' 12 However, this provision was left without reference to any funds to help fulfill such an objective. Instead, the only reference to funding made available to developing countries was for mitigation, adaptation, technological development and transfer, and capacity building. 13 Once again, the primacy of global warming was emphasized and funded while the plight of the non carbon dioxide generating EOP and the countries they inhabit- were almost totally ignored. The amaurosis afflicting climate change negotiators is perplexing for a number of reasons. Indoor pollution is the clearest example of an energy problem that extracts a horrendous toll of death and sickness, especially among women and children. It blights the EOP who rely on fire as their sole source of energy for cooking, illumination, and heating. Using an open fire, or a traditional stove fueled by biomass, results in inefficient combustion that releases dangerous quantities of carbon monoxide, particulate matter, and other pollutants into the air. These indoor pollutants result in the premature death every year of 2 million women and children from pneumonia, chronic obstructive pulmonary diseases, lung cancer, and asthma. They also cause chronic respiratory ailments and debilitating sickness for many more millions. 14 With regard to indoor pollution, recent scientific investigations published in well established and respected peer-reviewed journals conclude that black carbon or black soot emitted by the burning of biomass makes the second strongest contribution to current global warming after carbon dioxide emissions.15 According to these studies, the particulates in black carbon absorb reflected solar radiation, as well as direct solar radiation, thus warming the atmosphere more severely than other greenhouse gases like methane, halocarbons, and tropospheric ozone. Moreover, black carbon can travel potentially thousands of miles on air currents, and eventually settle out of the air, onto land, water, and ice. Black carbon may lower the albedo, or reflectivity, of polar ice that covers vast stretches of the Arctic and Antarctica. The presence of overlying black carbon may result in ice retaining more heat, leading to increased melting and eventually a warmer Earth.16 These scientific facts offer compelling evidence that the EOP unmistakably and objectively fall within the economic, social, and environmental dimensions of SD. Providing cook stoves for example, could save millions of people from premature death and sickness, and free them to embark upon income generating economic activities. Moreover, the environmental co-benefits are incontestable. Apart from establishing a healthier population that can fight global warming, reducing black soot or black carbon by using cook stoves, will positively and directly reduce global warming. Furthermore, reducing black carbon will cost only a fraction of the price of carbon dioxide mitigation. Unlike carbon dioxide, which remains in the atmosphere from 50 to 200 years and is very costly to mitigate, black carbon is short-lived and significantly cheaper to remove. Even if all carbon dioxide emissions were miraculously stopped today, the effects of existing carbon dioxide will continue for a century. Conversely, black carbon dissipates and disappears within a week. Thus, the beneficial effects of the removal of black carbon will be felt within a short time frame. First, we introduce the topic. Then Section II illustrates the problems of the EOP by examining indoor air pollution caused by burning biomass and the resulting public health and global warming repercussions. Section III analyzes the concept of SD and its legal incorporation into international law. It provides the historical context as to why the broader socio-political and legal responses to the problems of the EOP must be predicated on SD. Section IV deals with SD and John Rawls. SD expresses the foundational concepts of international justice developed by Rawls in his Law of Peoples.'7 This section argues that Rawls offers the jurisprudential and philosophical foundations of SD. Section V addresses the question of global warming and SD, explaining why global warming is not the most important of the myriad problems confronting developing countries. Further, section V takes issue with the position of the developed world only to pledge scarce resources toward GHG mitigation and adaptation. Energy justice cries out for relief for the EOP who have no access to hydrocarbon-based energy, and do not emit significant quantities of GHGs. The decision made at Copenhagen to restrict global funding to the reduction of GHG emissions flies in the face of SD because it confines its assistance only to countries and peoples emitting carbon dioxide and other GHGs, and effectively penalizes the EOP for not being GHG emitters. The Conclusion will point out that addressing the problem of indoor pollution caused by burning biomass is only one step toward creating a more comprehensive basis for the energy-based SD of the EOP. This important first step, along with the mainstreaming of women 18, should become part of an unbroken sustainable energy continuum spanning indoor pollution, agriculture, cottage industries, distributed energy, public health, and education to address the needs of the EOP. II. NEGATIVE EFFECTS OF INDOOR ENERGY AIR POLLUTION Humans are engaged constantly in energy conversions-processes that transform one form of energy into a more useful form. Because energy is necessary for meeting basic needs like cooking, sanitation, lighting, and heating, efficient human organization bears a strong correlation to effective energy conversion. The extent to which good organization can convert human labor to produce energy of the kind unimaginable before the industrial revolution is offered by the building of the Great Pyramid of Khufa. 19 Technological innovations help convert fossil fuels, solar radiation, or nuclear fuels into other, more useful energy forms such as electricity, mechanical energy, or heat. The fossil fuel based civilization of the more prosperous two-thirds of the contemporary world has developed by exploiting the rich energy endowment embodied in fossil hydrocarbons. The very high energy density of these sources, along with the technological systems that have been fashioned to harness them, has created an enormously effective development subsidy for the prosperous. In contrast, the world's remaining third, comprising fifty-two percent of the total population in developing countries, rely on biomass such as agricultural waste, animal dung, fuel wood, and charcoal, as their primary fuel source. 20 Using biomass for fuel, the process of cooking over an open fire, or even with a traditional stove, results in inefficient combustion. For instance, when using a traditional biomass-burning stove, only about eighteen percent of the energy from the fire goes into the pot. This inefficiency means that more biomass must be burned to cook meals, creating more pollution.21 Depending on the type of fuel and stove being used, indoor air pollution can contain a variety of dangerous pollutants, such as carbon monoxide, nitrous oxides, sulfur oxides, formaldehyde, carcinogens (such as benzene), and small particulate matter.22 This section discusses the effects of burning biomass on human health, local economics, and global warming. A. Effects on Human Health Reliance on biomass as a primary source of energy leads to many adverse consequences for human health.23 The poverty associated with biomass dependence usually means that kitchens are small and poorly ventilated, causing extremely elevated concentrations of dangerous indoor air pollution. For instance, whereas the U.S. Environmental Protection Agency ("EPA") sets a limit of 150 tg/m3 for small particulates in the United States, the World Health Organization ("WHO") reports that a typical twenty-four hour mean level for homes burning biomass fuels is between 300 to 3,000 [tg/m3 .24 This results in pollution levels that are far more deadly in EOP countries than the atmospheric pollution allowed by the developed world. The negative health effects of indoor air pollution are not solely created by its high concentration in the air. Rather, negative health effects are also a function of the exposure level, based on the amount of time an individual spends inhaling the polluted air. 25 As women traditionally are responsible for cooking and childcare in the home, they spend more time inhaling the polluted air that is trapped indoors. Women and children thus have the highest exposure to indoor air pollution and disproportionately suffer from the associated negative health effects. 26 The time spent by EOP women cooking greatly increases their health risks 27 in addition to possible bums and injuries associated with cooking over an open fire. Depending on the demands of the local cuisine, women who cook over biomass fires generally spend between three and seven hours each day near the stove preparing food. 28 Not only do these women spend more total time around the fire, but they are also exposed to the most intense pollution which "occurs during short peaks when fuel is added or moved, the stove is lit, the cooking pot is placed on or removed from the fire, or food is stirred."'29 Because these factors are generally not considered when calculating exposure from average pollution levels, the exposure of women to indoor air pollution may be underestimated by more than fifty percent.30 Children are also particularly susceptible to the hazards of burning biomass, and often suffer from bums or injuries from interactions with open fires in addition to indoor air pollution effects. In many cultures, the provision of childcare involves mothers carrying their infants on their backs as they work and supervising young children inside. As a result, children spend many hours breathing indoor air pollution during the first few years of their lives. Infants and young children are particularly vulnerable to indoor air pollution because their airways are still developing, thus fifty-six percent of all indoor air pollution-attributable deaths occur in children under five years of age.31 Children may also be affected by indoor air pollution in utero. Emerging evidence suggests that pregnant women exposed to indoor air pollution may increase the risk of low birth weight and prenatal mortality, stillbirths, and deaths during the first week of life.32 Exposure to tobacco smoke is known to be a significant factor in decreased birth weight, and the health effects from the combustion of wood and other biomass are qualitatively similar to burning tobacco. 33 A study in Guatemala found that pregnant women using wood fuel gave birth to babies with a lower mean birth weight than women using cleaner fuels, even when socioeconomic status was taken into consideration. 34 Low birth weight impacts infant mortality and morbidity rates and puts children at further risk of developing respiratory illnesses if they survive past infancy.35 Indoor air pollution is responsible for approximately 1.6 million deaths per year in developing countries, amounting to one life lost every twenty seconds. 36 Most of these deaths take place in eleven countries Afghanistan, Angola, Bangladesh, Burkina Faso, China, the Democratic Republic of the Congo, Ethiopia, India, Nigeria, Pakistan, and the United Republic of Tanzania-where indoor air pollution kills a total of 1.2 million people each year. 37 According to the WHO, exposure to high concentrations of indoor air pollution presents one of the ten most important threats to public health worldwide. 38 Exposure to indoor pollution results in acute respiratory infections ("ARI"), chronic obstructive pulmonary disease ("COPD"), lung cancer, tuberculosis, and asthma. Each of these conditions deserves brief mention. The WHO estimates that 35.7% of all instances of ARI worldwide, such as pneumonia, are caused or worsened by exposure to biomass smoke. 39 Indoor air pollution can also increase the incidence of acute lower respiratory infections (ALRI) by affecting the body's defense systems, such as the ability to filter and remove particles in the upper airways. ALRI is the most important single cause of death in children under age five, responsible for 3 to 5 million deaths in this age group annually. 40 There is consistent evidence that exposure to indoor air pollution can lead to ALRI in young children. 41 A series of studies in developing countries indicates that young children living in homes dependant on biomass have a two to three times greater risk of suffering from ALRI than unexposed children. This figure was reached even after other factors, such as socioeconomic status, were accounted for.42 Although ALRI deaths have been declining in the industrialized world with improvements in vaccines and antibiotics, such remedies are often unavailable to the EOP. 43 Indoor air pollution is also considered a risk factor for chronic obstructive pulmonary disease ("COPD"), such as chronic bronchitis. 44 In industrialized countries, tobacco smoking accounts for over eighty percent of COPD cases. However, this disease also occurs in the developing world in areas where tobacco smoking is rare. The UNDP states that the use of poorly ventilated, inefficient stoves "can have the same adverse health impacts as smoking two packs of cigarettes a day."45 A person who is exposed to a biomass fire on a daily basis is two to four times more likely to suffer from COPD than a person who remains unexposed. The WHO estimates that twenty-two percent of all COPD cases worldwide are caused by exposure to indoor air pollution from biomass fires.46 Smoke inhalation is also associated with lung cancer. In developing countries, specific country studies 47 illustrate the general fact that even women who do not smoke tobacco form an unexpectedly high proportion of lung cancer patients, 48 While a clear link between lung cancer and biomass smoke has yet to be demonstrated, the International Agency for Research on Cancer ("IARC") concluded that indoor emissions from household combustion of biomass is probably carcinogenic to humans. 49 Furthermore, after a thorough review of published scientific evidence, the IARC concluded that indoor emissions from household combustion of coal are, in fact, carcinogenic to humans. 50 There are several additional negative health effects associated with the daily inhalation of biomass smoke. Three published studies suggest that people in homes using wood for cooking are at 2.5 times greater risk of active tuberculosis than those who do not. 51 Moreover, there is growing evidence suggesting that indoor air pollution causes cataracts. 52 Furthermore, there is some evidence that wood smoke pollution can trigger and exacerbate asthma when combined with other ambient pollutants. 53 In sum, indoor pollution caused by biomass burning takes place in small, ill ventilated huts and kitchens, and leads to a noxious cocktail of diseases that particularly afflict women and children. The resulting afflictions range over a spectrum from ALRI to bronchitis, tuberculosis, lung cancer, cataracts, and bodily harm by way of burns and injuries. B. Economic Effects In addition to the disproportionate health burden placed on women and children, biomass fuel collection also imposes a serious economic burden on the EOP. The average amount of time that a family spends collecting fuel falls between thirty minutes and two hours each day. Where biomass has become scarce, fuel collection can take much longer.54 Children, particularly girls, may be kept out of school in order to assist their mothers with collecting fuel.55 There are significant risks associated with collecting large amounts of biomass. Transporting large loads of fuel exposes women and children to injuries and pregnant women to miscarriages. 56 In areas of war and civil unrest, women and children may be exposed to violence and injury as they search for fuel away from their homes. 57 This perpetual chore of collecting fuel is both a cause and a result of poverty. Poor households often do not have the resources to obtain cleaner, more efficient fuels and appliances. These families are not faced with a choice, but a fact: they must cook using biomass or they will not eat.58 Women in these circumstances tend to have limited decisionmaking power in the home, which decreases their ability to change the system, making household energy needs a lower priority than women might wish. 59 Reliance on biomass denies EOP women and children the opportunity for education and income-generating activities that could increase their family's standard of living.60 Other consequences of poverty, such as malnutrition, deprivation, poor sanitation, and low standards of available medical services, further intensify the negative health effects of indoor air pollution. 61 Thus, dependence on biomass contributes to a vicious cycle of poverty. C. Environmental and Climate Change Effects In addition to perpetuating poverty and negatively affecting the health particularly of women and children, there are also severe environmental impacts of biomass dependence. The reliance on wood as a fuel source puts considerable pressure on local forests, particularly in areas where fuel is scarce and demand for wood outstrips natural regrowth. 62 Depletion of woodland can lead to soil erosion and loss of a carbon sink. 63 Furthermore, it has been well established that burning dung and agricultural residues emits carbon dioxide and methane. 64 Arresting new research findings-well-received, though they have not yet garnered universal consensus among the scientific community-have now identified emissions from the burning of biomass as a significant cause of anthropogenic global warming. According to an article in Nature Geoscience65 discussed in Science,66 the black carbon emitted by burning biomass makes the second strongest contribution to current global warming after carbon dioxide emissions. The article concludes that black carbon warms the atmosphere more severely than other greenhouse gases such as methane, halocarbons, and tropospheric ozone by absorbing both direct and reflected solar radiation contributing to a significant enhancement of lower atmosphere solar heating. 67 Unlike carbon dioxide, the primary cause of anthropogenic global warming that has a life cycle of 50 to 200 years, black carbon remains in the atmosphere for less than one year, and perhaps only for one week.68 Although black carbon leaves the atmosphere much more quickly than carbon dioxide, its global warming capacity stays intact as long as its ambient concentrations remain high, which happens so long as newly emitted black carbon replenishes what is removed. However, if emissions were to cease today and not replenished, the existing ambient concentrations of black carbon would be gone in as little as one week. Thus, helping to move one-third of the global population away from biomass burning will have the effect of reducing global warming more efficiently than merely reducing carbon dioxide emissions. Furthermore, black carbon has also been implicated in interfering with the albedo effect of ice cover. Snow and ice are very reflective, and albedo refers to a specific form of reflectivity that allows between seventy and eighty percent of the suns rays that hit snow and ice to bounce back into space. Two credible scientists conclude that black soot on snow impairs its albedo and may amount to a quarter of global warming. 69 Indoor pollution demonstrates the poverty of the EOP and the extent to which their plight cries out for SD. Human progress is largely determined by, and may even be equated with, the harnessing and use of energy. Accordingly, the economic and social development of the EOP must address the fact that a predominant reason for the poverty of the EOP lies in their lack of access to exogenous energy. Their right to energy places a correlative duty on developed countries. The contours of such a duty are defined by SD.

#### Residual link logic in the context of energy poverty is historically depraved.

Michael Shellenberger 13, cofounder of Breakthrough Institute and founder of Environmental Progress, 6-4-2013, “Has There Been a Great Progressive Reversal? How the Left Abandoned Cheap Electricity,” https://www.alternet.org/2013/06/how-progressives-abandoned-cheap-electricity/?paging=off

The Rejection of the State and Cheap Energy

Just a decade later, as Vietnam descended into quagmire, left-leaning intellectuals started denouncing TVA-type projects as part of the American neocolonial war machine. The TVA’s fertilizer factories had previously produced ammunition; its nuclear power stations came from bomb making. The TVA wasn’t ploughshares from swords, it was a sword in a new scabbard. In her 1962 book Silent Spring, Rachel Carson described modern agriculture as a war on nature. The World Bank, USAID, and even the Peace Corps with its TVA-type efforts were, in the writings of Noam Chomsky, mere fig leaves for an imperialistic resource grab. Where Marx and Marxists had long viewed industrial capitalism, however terrible, as an improvement over agrarian feudalism, the New Left embraced a more romantic view. Before the arrival of “progress” and “development,” they argued, small farmers lived in harmony with their surroundings. In his 1973 book, Small is Beautiful, economist E.F. Schumacher dismissed the soil erosion caused by peasant farmers as “trifling in comparison with the devastations caused by gigantic groups motivated by greed, envy, and the lust for power.” Anthropologists like Yale University’s James Scott narrated irrigation, road-building, and electrification efforts as sinister, Foucauldian impositions of modernity on local innocents. With most rivers in the West already dammed, US and European environmental groups like Friends of the Earth and the International Rivers Network tried to stop, with some success, the expansion of hydroelectricity in India, Brazil and elsewhere. It wasn’t long before environmental groups came to oppose nearly all forms of grid electricity in poor countries, whether from dams, coal or nuclear. “Giving society cheap, abundant energy,” Paul Ehrlich wrote in 1975, “would be the equivalent of giving an idiot child a machine gun.” Elaborate justifications were offered as to why poor people in other countries wouldn't benefit from cheap electricity, fertilizer and roads in the same way the good people of the Tennessee Valley had. Biomass (e.g., wood burning), solar and efficiency “do not carry with them inappropriate cultural patterns or values.” In a 1977 interview, Amory Lovins added: “The whole point of thinking along soft path lines is to do whatever it is you want to do using as little energy — and other resources — as possible.” By the time of the United Nations Rio environment conference in 1992, the model for “sustainable development” was of small co-ops in the Amazon forest where peasant farmers and Indians would pick nuts and berries to sell to Ben and Jerry’s for their “Rainforest Crunch” flavor. A year later, in Earth in the Balance, Al Gore wrote, “power grids themselves are no longer necessarily desirable.” Citing Schumacher, he suggested they might even be “inappropriate” for the Third World. Over the next 20 years environmental groups constructed economic analyses and models purporting to show that expensive intermittent renewables like solar panels and biomass-burners were in fact cheaper than grid electricity. Greenpeace and WWF hired educated and upper-middle class professionals in Rio de Janeiro and Johannesburg to explain why their countrymen did not need new power plants but could just be more efficient instead. When challenged as to why poor nations should not have what we have, green leaders respond that we should become more like poor nations. In The End of Nature, Bill McKibben argued that developed economies should adopt “appropriate technology” like those used in poor countries and return to small-scale agriculture. One “bonus” that comes with climate change, Naomi Klein says, is that it will require in the rich world a “type of farming [that] is much more labor intensive than industrial agriculture.” And so the Left went from viewing cheap energy as a fundamental human right and key to environmental restoration to a threat to the planet and harmful to the poor. In the name of “appropriate technology” the revamped Left rejected cheap fertilizers and energy. In the name of democracy it now offers the global poor not what they want — cheap electricity — but more of what they don’t want, namely intermittent and expensive power. From Anti-Statism to Neo-Liberalism At the heart of this reversal was the Left’s growing suspicion of both centralized energy and centralized government. Libertarian conservatives have long concocted elaborate counterfactuals to suggest that the TVA and other public electrification efforts actually slowed the expansion of access to electricity. By the early 1980’s, progressives were making the same claim. In 1984, William Chandler of the WorldWatch Institute would publish the “The Myth of the TVA,” which claimed that 50 years of public investment had never provided any development benefit whatsoever. In fact, a new analysis by economists at Stanford and Berkeley, Patrick Klein and Enrico Moretti, find that the "TVA boosted national manufacturing productivity by roughly 0.3% and that the dollar value of these productivity gains exceeded the program's cost." Even so, today's progressives signal their sophistication by dismissing statist solutions. Environmentalists demand that we make carbon-based energy more expensive, in order to "harness market forces" to cut greenhouse gas emissions. Global development agencies increasingly reject state-sponsored projects to build dams and large power plants in favor of offering financing to private firms promising to bring solar panels and low-power "microgrids" to the global poor — solutions that might help run a few light bulbs and power cell phones but offer the poor no path to the kinds of high-energy lifestyles Western environmentalists take for granted. Where senators Norris and Gore Sr. understood that only the government could guarantee cheap energy and fertilizers for poor farmers, environmental leaders today seek policy solutions that give an outsized role to investment banks and private utilities. If the great leap backward was from statist progressivism to anarcho-primitivism, it was but a short step sideways to green neoliberalism. But if developed-world progressives, comfortably ensconced in their own modernity, today reject the old progressive vision of cheap, abundant, grid electricity for everyone, progressive modernizers in the developing world are under no such illusion. Whether socialists, state capitalists, or, mostly, some combination of the two, developing world leaders like Brazil’s Lula da Silva understand that cheap grid electricity is good for people and good for the environment. That modern energy and fertilizers increase crop yields and allow forests to grow back. That energy poverty causes more harm to the poor than global warming. They view cheap energy as a public good and a human right, and they are well on their way to providing electricity to every one of their citizens. The TVA and all modernization efforts bring side effects along with progress. Building dams requires evicting people from their land and putting ecosystems underwater. Burning coal saves trees but causes air pollution and global warming. Fracking for gas prevents coal burning but it can pollute the water. Nuclear energy produces not emissions but toxic waste and can result in major industrial accidents. Nevertheless, these are problems that must be dealt with through more modernization and progress, not less. Viewed through this lens, climate change is a reason to accelerate rather than slow energy transitions. The 1.3 billion who lack electricity should get it. It will dramatically improve their lives, reduce deforestation, and make them more resilient to climate impacts. The rest of us should move to cleaner sources of energy — from coal to natural gas, from natural gas to nuclear and renewables, and from gasoline to electric cars — as quickly as we can. This is not a low-energy program, it is a high-energy one. Any effort worthy of being called progressive, liberal, or environmental, must embrace a high-energy planet.

#### Deforestation causes extinction.

Gerardo **Williams 17**. Environmental scientist and author. 3-20-2017. “Effects of Deforestation: The Ultimate Guide to Deforestation Solutions.” Lulu Press. Google Book.

Deforestation introduces numerous community and environmental harms. The abrupt and irreversible consequences of worldwide deforestation are guaranteed to jeopardize the existence of Earth. The domino effect of deforestation includes: extinction of the biodiversity; the annihilation of the indigenous people (local inhabitants of the area); and a global change in climate. One wrong move can lead us all to an empty and meaningless world. The consequence of deforestation is claimed to be a domino effect because one step to destroying nature will cause the deaths or extinction of many more species. After the death of animal and plant life is the partial loss of human life through poverty and pollution. If things pursue this way, human extinction could also be inevitable. The years are counting, and each day of that year trees are being felled and lands are being abolished of the natural wonders. If the world used to be a better and cleaner place to live in, then we can definitely start to relive those days now. The only known way to halt this is to put a stop to every cause of deforestation. Regardless of the pros and cons of deforestation, we must only think of one thing, and that is reviving nature while it is still possible to be saved. While there is only an ample amount of time left, we would need it to rebuild nature and stop its total destruction.

#### Sea level rise alone kills 3 billion

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Melting glaciers and ice sheets are driving global sea level rise As temperatures increase, vast quantities of runoff from melting glaciers, ice caps, and ice sheets flows into the sea, causing the global sea level to rise. Melting land ice has accelerated during the 21st century. Glaciers are now melting at up to three times the rate observed in the 20th century, and on the northeast section of Greenland, ice loss has nearly tripled since 2003. Global sea levels have risen by 8 inches since 1880. Scientists expect sea levels to rise by up to an additional 4 feet by 2100—with roughly 1 foot of this increase occurring by midcentury—putting nearly 3 billion people, or 40 percent of the world’s population that lives near coasts, at risk of severe flooding and erosion.

#### Climate impacts are wide-ranging and unequally distributed along racial lines---non action is complicity in imperialist aggression.

Roger Hallam 16, Kings College Department of Culture, Media & Creative Industries PhD candidate, “Climate Change, Racism, and Black Lives”, Open Democracy, 9-27, https://www.opendemocracy.net/uk/roger-hallam/climate-change-racism-and-black-lives

This month marked a historic shift in the way climate change is communicated. Black Lives Matter (BLMUK) blocked City Airport in London to highlight that the climate crisis is a racist crisis. With half a million plus views on YouTube and interviews on BBC, the action has led to a torment of indignation, rage, mixed with the usual blatant racist abuse on the YouTube and Guardian comments threads. Even “progressive left” voices seem to have deemed that mixing climate and race is inappropriate, confusing, and counterproductive. I want to argue the exact opposite. First it is necessary be clear about the science on climate change. Most people including many left activists seem to still subscribe to the notion that climate change is some vague threat that is going to happen at some point in the distant future. As one well regarded young activist friend put it “at least I will be dead by then”. Aside from the dubious ethics of such an attitude is it also plain wrong. The science has made great strides in the last ten years on “abrupt” climate change and cautious predictions of distant impacts are crashing to the ground as new data comes in. For example the rather comforting prediction that the Arctic ice cap won’t melt till around 2100 is now challenged by many experts, who argue that summer sea-ice may be gone from the Arctic within the next ten years – and around two thirds of summer sea ice has disappeared in just 36 years. At this point the most basic physics will kick in. With no ice to keep the Arctic Ocean cool, it will warm rapidly (latent heat effect) triggering even more rapid melting of the Greenland ice cap which lost and 2,700 billion tonnes of ice between 2003 and 2013. If we allow Greenland’s whole ice-cap to go, it will raise sea levels by around six metres, flooding most of the world’s major cities. The loss of white ice cover reflecting the sun’s rays back into space (albedo effect) will trigger further temperature increases. Add this to the temperature increases still to be fed into the system from already released CO2, and we quickly see that the Paris agreement was a massive act of self delusion. And this is before we factor in the exponential growth of forest fires, storms, and draughts not to mention the methane bomb (look it up). It is clear we have are facing an existential crisis here and now – today. Except of course that “we” hides an important detail. The first people to suffer are the predominately black and brown skinned people of the global south. As Kevin Anderson, top climate change expert, succinctly puts it – if we are to have any hope of avoiding the 2C temperature rise and the catastrophic effects this will have on these most vulnerable global populations, the western industrialised countries have to drastically cut carbon emissions by over 10% a year for the next ten years. In other words we will have blown the target out of the water just through the global emissions of the global rich even before the global south has had any significantly affect on emissions levels. This is the brutal maths which we are presented with. These are the cold hard facts. The political implications of this situation are explosive. In the next five years the actions of predominately rich white people will cause the deaths of millions of poor black people who have no responsibility for this crisis. The average American's annual carbon footprint – 20.4 tons – is around 2,000 times that of someone living in the African nation of Chad. The refusal to cut emissions constitutes an act of imperialist aggression against the former colonised parts of the world. Instead of grading land and gold, this time round it is grabbing of carbon budgets. Instead of slaughter by the gun, this time it is the destruction of their climate. And why? Because, as in the past so today, black lives don’t matter. The question of Intent. Much of the uproar about the idea that the climate crisis is a racist crisis is because people are convinced that they do not hate black people and therefore cannot be racist. They do not intend to cause harm and therefore cannot be held responsible. Such a position shows a complete lack of understanding of the nature of oppression. Most political violence is not committed because of conscious hate but rather because of the opposite – the victim is invisible and therefore the act of violence is invisible. In the film “the Help” the white womens’ self-understanding was that they were decent upstanding members of their community. They simply could not understand that their actions were insulting and humiliating because they had never been challenged on their privilege. As psychological research shows normal “decent” people are quite capable of participating in violence – what Hannah Arendt called the “banality of evil”. Similarly the global political system that maintains white power at the expense of black genocide has never been challenged to face its violence. When it does, all hell will break loose because the spell is broken, the crime exposed. The emperor is suddenly seen as naked. We saw a foretaste of this in the comment threads this month. It is therefore a no brainer that this crisis is a racist crisis because a total disregard for black lives has been and continues to be an integral part of the structure of extortion and violence that have characterised the global system for the past three centuries. The reframing of climate change as an act of extreme racist violence promises to at last bring home to the public and the powers that be that the game is up. This is not an “environmental” crisis – to be slotted into the “climate science” bracket on news programmes – any more than Pinochet’s atrocities belong to the “human biology” bracket. The climate is simply the conduit through which the violence of one group is enacted upon another, through the justification that the lives of the latter “don’t matter”. Continued discussions of the mechanics of climatic processes are now the moral irrelevant of questions about the electromagnetic forces in play when electrocuting a dissenter’s genitals. This is not a hopeless situation. What needs to happen is very clear and doable – a systematic move to drastically reduce emissions by key Western States in the next five years starting now. If we claim that “black lives matter” – indeed if we believe human life itself matters – then we need to grow up, look the situation squarely the face, and start taking personal responsibility for making this death cult system we live in wake up and take notice. The action this month is the start of a sea change in climate activism. As in previous times of extreme moral and political crisis, direct action on a massive scale is now needed. As the great political philosopher John Locke states – when a state threatens the life and property of the people, rebellion is not only justified but a duty. Groups like Reclaim the Power are organising mass actions such as one at an UK airport on 1st October (details here). From now on inaction will destroy not only the prospects for the next generation but also any sense of moral self-worth and integrity. The situation is the situation. There are no cost free options any more.

#### Rural electrification is necessary to solve.

Carmen G. Gonzalez 15, Seattle University law professor, 12-9-2015, "Energy Poverty And The Environment," International Energy And Poverty: The Emerging Contours Lakshman Guruswamy, Ed. (Routledge, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2616096&download=yes

Energy Poverty and Climate Change: The Missing Link Energy poverty is concentrated in the Least Developed Countries (LDCs), the nations singled out by the United Nations (UN) for their low income, high vulnerability to economic and environmental shocks, and small and geographically remote economies. The Energy Poor also reside in middle-income Southern nations, such as China, Brazil, and India, where their plight is often obscured by the rapidly increasing consumption levels of the middle class and the elite. Indeed, Guruswamy persuasively argues that it is a mistake to identify the Energy Poor with the state in which they reside because the Energy Poor are not stakeholders in the political process and are generally ignored by their own governments and by the international community (Guruswamy, 2010). Energy poverty is a form of transnational environmental injustice that exhibits the four distinct aspects of environmental injustice discussed above. First, the Energy Poor experience distributional injustice because they are denied equitable access to the clean and affordable energy necessary for a dignified existence. Ironically, many of the Energy Poor reside in energy rich countries whose lucrative petroleum exports line the pockets of transnational corporations and kleptocratic national elites (Soares, 2007). For example, 80 percent of Africa’s petroleum is exported (much of it to service the foreign debt) while the Energy Poor make due with dried animal dung, wood, and other locally available fuels (Nelson, 2004). Second, the Energy Poor experience procedural injustice because they are politically marginalized and do not have the opportunity to participate in governmental decision-making regarding energy policy (Guruswamy, 2010). Third, the Energy Poor are subject to corrective injustice because they generally have no remedy in domestic or international tribunals to secure access to clean and affordable energy. Indeed, conflicts between transnational oil corporations and local communities have occasionally turned violent because the Energy Poor often bear the human health and environmental costs of oil drilling with limited or n no access to its economic benefits (Soares, 2007). Finally, energy poverty is inextricably intertwined with a host of other social ills, including economic inequality, gender bias, child labor, and lack of access to healthcare and education. The climate change negotiations represent a unique opportunity for Northern countries to repay the climate debt and foster climate and energy justice by financing the provision of clean, renewable energy to the world’s Energy Poor. Regrettably, the climate change negotiations have given short shrift to energy poverty because the Energy Poor emit minimal greenhouse gases For example, the Copenhagen Accord acknowledges the importance of ensuring that low emitting countries “continue to develop on a low emission pathway” (Copenhagen Accord, 2009, Art. 7), but fails to allocate funding to fulfill this objective. This omission is regrettable because the UNFCCC’s preamble explicitly recognizes the need to increase energy consumption in the global South “for the achievement of sustained economic growth and the eradication of poverty” (UNFCCC, 1992, preamble). The lack of attention to energy poverty in the climate change negotiations is puzzling for at least four reasons. First, energy poverty poses an enormous threat to human health. According to the World Health Organization, reliance on biomass for cooking and heating results in over four million premature deaths per year from respiratory, cardiovascular, and other ailments caused by exposure to indoor air pollution. Most of the victims are women and children (WHO, 2014). Second, the black carbon emitted by the combustion of biomass constitutes the second most significant contributor to climate change after carbon dioxide. Black carbon, when it is airborne, warms the planet by absorbing solar radiation more effectively than other greenhouse gases, such as tropospheric ozone and methane (Ramanathan & Carmichael, 2008; Bond et al, 2013). When black carbon is deposited on snow and ice in the Arctic and Antarctic regions, it lowers their ability to reflect solar radiation and thereby accelerates melting and consequent sea level rise. (Jacobson & Streets, 2009). Third, dependence on biomass for energy is a significant contributor to deforestation. Deforestation produces soil erosion and deprives local communities of other valuable ecosystem services, including flood control, drought resistance, regulation of rainfall, habitat for biodiversity, and enhancement of water quality. Deforestation also destroys valuable carbon sinks, and the burning of biomass emits greenhouse gases (Myers, 1997). Finally, the lack of attention to black carbon in the climate negotiations is perplexing because the cost of reducing black carbon emissions is minimal relative to other greenhouse gases and because the benefits are potentially enormous (Guruswamy 2010). Whereas carbon dioxide can reside in the atmosphere for 50 to 200 years, black carbon dissipates in as little as one week if existing emissions cease (Ramanathan & Carmichael, 2008). In other words, “helping to move one-third of the global population away from biomass burning will have the effect of reducing global warming more efficiently than merely reducing carbon dioxide emissions.” (Guruswamy, 2010, 246). In short, addressing energy poverty represents a win-win proposition in the climate change negotiations -- an inexpensive mitigation strategy that enhances the well-being of the Energy Poor while avoiding environmental “tipping points” by producing immediate emissions reductions. Although providing modern electrical energy to the Energy Poor would be an expensive decades-long undertaking, numerous appropriate sustainable energy technologies (ASETs) are presently available. These include decentralized electricity generating systems based on solar, wind, and local biodiesel; efficient cook-stoves; and solar thermal heating. Decentralized electricity generation is particularly appropriate because the majority of the world’s Energy Poor reside in sparsely populated rural areas of the global South, where extension of the existing electric grid would be cost-prohibitive (Guruswamy, 2011). Decentralized renewable energy-based systems can provide the Energy Poor with electrical power without tying them to existing fossil-fuel based energy systems that are cumbersome, expensive, polluting, and vulnerable to capture by corrupt national elites. ASETs thereby promote democracy, self-determination, and local control in addition to mitigating climate change, providing energy to the nearly three billion Energy Poor, and hastening the global South’s transition to sustainable energy.

#### Solar power developed to resolve energy poverty is necessary---this is a demand of non space faring nations.

Aleksey Shtivelman 12, Boston JD, “Solar Power Satellites: The Right To A Spot In The World's Highest Parking Lot,” https://www.bu.edu/jostl/files/2015/02/Shtivelman\_web.pdf

\*\*\*edited for gendered language

Rather than spending millions on land-based solar power projects, it would be much more profitable if these nations invested in SBSP satellites for two reasons. First, although SBSP satellites are much more expensive at the outset, the cost of initial investment is returned in a period of time comparable to what it would take to recoup the investment cost of a land-based solar farm. 113 Second, SBSP satellites generate about eight to ten times as much power as land-based solar farms."l 4 This means that after one and a half years, SBSP satellites would generate eight to ten times the revenue of a land-based solar farm. As a result, countries that currently rely on coal, nuclear or other types of non-clean, non-renewable energy may look to SBSP for their energy needs, and consequently generate a significant spike in demand for orbital locations on the GSO. This increased demand will raise two issues: (1) whether a GSO orbital slot can be owned, and, (2) if not, whether there is a way to allocate the right to access GSO orbital slots for a period of time. A viable legal framework could address both of these issues in a clear and precise manner. The ITU currently allocates slots for telecommunications satellites, but the increased demand for slots in GSO for SBSP satellites may force countries to reevaluate ITU's authority to regulate SBSP satellites. An unsuccessful attempt to appropriate GSO slots The ITU allocation is one way to solve the problem, but given the physical limitations of the GSO, there is an underlying conflict between the goals of fair and equitable access on one side and the GSO's efficient use on the other.' 5 The conflict arises when developed countries receive priority to access the GSO because they have the demand, infrastructure, and funding to put satellites into orbit, while developing countries without viable satellites also want access the GSO. 116 This a posteriori approach to GSO property rights favors those who are first to apply for frequency and orbital slots and protects those applicants from interference by later users."17 At the same time, developing countries do not favor such a "free-market-approach" to GSO access; on the contrary, they would like a multilateral approach that distributes access to the GSO equitably among all nations. 118 "As feared by the developing States, this a posteriori system [has] provided a few industrialized and rich States with the opportunity of temporarily unlimited use of registered frequencies and orbit positions."' "19 Developing countries feel that they should have equal access to these frequencies and orbital slots. 120 These countries have tried to gain leverage over the GSO resource by advocating for the creation of an administrative agency that would allocate a part of the GSO to each country. In 1976, eight developing countries above the equator claimed sovereign right over the parts of the GSO lying over their territories and called for the administration of the rest of the GSO. 12 ' The Declaration of the First Meeting of Equatorial Countries (the "Bogota Declaration") asserted that these countries had the right to parts of the GSO because the orbit should be considered part of the earth and not outer space. 22 These countries argued that the gravitational force that produces the GSO was defived from their land.' 23 Both developed and developing countries rejected the Bogota Declaration's arguments because its claims were weak: the gravity that produces the orbit (1) is produced by the entire earth, not just these eight nations, and (2) produces all orbits, not just the GSO.124 Another of the arguments in the Bogota Declaration was that there is no legally defined boundary as to where an atmosphere ends and space begins. 125 Furthermore, the Bogota Declaration declared that even the Outer Space Treaty, which provides the basic outline for the peaceful exploration and use of outer space, does not address the issue. 126 While there is no definition that all countries in the world accept regarding the boundary of space, the International Aeronautic Federation recognizes the Karman Line as the edge of the atmosphere and the beginning of space.' 27 The International Aeronautic Federation is a non-governmental organization founded in 1905, for the purpose of encouraging aeronautical and astronautical activities worldwide. 28 It has 100 member countries, including the United States, United Kingdom, Spain, Sweden, South Africa, Mongolia, Korea, Israel, Iran, as well as many others.1 29 For the preceding reasons, the International Aeronautic Federation portrays a widely held view concerning the definition of space. The Karman line is one hundred kilometers above sea level, and that is where the atmosphere becomes so thin that an airplane cannot fly and a spaceship is needed for flight.' 30 The GSO lies more than 35,000 kilometers above sea level, which is approximately 34,900 kilometers higher than the Karman line. Therefore, GSO is well above the demarcation of space that is internationally recognized. For this reason and others, most countries did not accept the Bogota Declaration. Accordingly, the Bogota Declaration was an unsuccessful attempt to appropriate GSO slots. Space law must allow appropriation of space for the good of everyone The Bogota Declaration was ultimately a failure because it violated internationally accepted principles. According to the Outer Space Treaty of 1967, GSO orbital positions and frequencies cannot be appropriated because no country can appropriate or own space. 31 Ninety-one states have signed this treaty, including the United States, the United Kingdom, Ukraine, Japan, Greece, Denmark, Spain, Uganda, Afghanistan, Iraq and many others. 32 The treaty specifies that outer space is the "province of mankind" and that all activity should be done for the benefit of all of humanity. 133 It would then seem that no country could have exclusive ownership over an orbital position in the GSO or any orbit. 134 Even if the Outer Space Treaty of 1967 prohibits countries from owning orbital slots in the GSO, the slots should still be allocated to countries that will use them, on a first-come, first-served basis. SBSP has so much potential to benefit all of [hu]mankind that if even a single country uses a GSO slot to gather power, the advantage of developing the technology of SBSP may outweigh the argument that all nations should have equal access to space.'3 5 Countries like Tonga that have no capability of sending satellites into orbit should not be able to claim GSO slots because this would prohibit developed countries from placing satellites into orbit that can benefit the whole world.136 The Outer Space Treaty of 1967 likely permits the allocation of GSO slots to individual countries on the condition that the slots are used for SBSP satellites that benefit all mankind. Countries with orbiting SBSP satellites could meet such conditional requirements in three ways. First, they could be required to provide power to less developed countries. Second, launching countries can help decrease global warming because SBSP satellites provide clean energy. Third, launching countries can lower the cost of solar power systems as they become cheaper and more affordable with time so that many less developed countries around the world will be able to access solar power from space. By satisfying any of these conditions, deployment of SBSP satellites would qualify under the treaty as "use of outer space ... carried out for the benefit and in the interests of all countries."'137 The universal benefits provided by SBSP satellites would therefore be consistent with the treaty's requirement that the use of outer space "shall be the province of all mankind." 138 Thus, while the Outer Space Treaty of 1967 may prohibit ownership of GSO slots, the temporary allocation of GSO slots for the use of SBSP satellites would be compatible with the goals of the treaty. ." As a result of the need to allow SBSP to have access to the GSO, there will need to be some sort of regulatory structure to GSO slot allocation. If a regulatory organization, such as the ITU, allows licensees to use a particular GSO position and microwave frequency, for a limited period of time, this would appear to satisfy the current international regime under the Outer Space Treaty of 1967. In order to comply with the treaty, countries would not have to surrender their slot or frequency, as they could simply allow other countries to lease the power satellites from them for a period of time. SBSP satellites in GSO would fall within the "province of mankind" requirement of the Outer Space Treaty of 1967 because SBSP can decrease global warming and help less developed countries by providing them with electricity in areas lacking infrastructure. Furthermore, SBSP satellites in GSO would satisfy the "peaceful purposes" requirement of the Outer Space Treaty of 1967 because the satellites are used for commercial power production and cannot be converted into weapons. 139

#### The United States federal government should cooperate with China to produce 3-D printed microwave array space-based solar power for the common benefit of humanity.

#### The plan produces space solar power via cooperation for the benefit of everyone.

Aldo Armando Cocca 80, Argentina Ambassador to the UN, “Resolving The Energy War Through International Law And Solar Technology,” https://www.uakron.edu/dotAsset/dd1f38cf-2206-42f7-a340-2ee49e1acbb7.pdf

After further consideration the seven conclusions were expanded into the "XII Commandments of Solar Energy" and were adopted by the IV Congress at the Asociacion Argentina de Derecho International in Sante Fe in September of 1976 and the Meetings on Air and Space Law IX in El Calafate, Argentina in November of 1977. The principles agreed upon between 1975 and 1977 should serve as a starting point for more intense studies and a wider development of the concepts contained therein. They read as follows: The principle of the "common heritage of mankind" is applicable to the Sun and its natural resources, as well as to all other energy captured in outer space and transmitted to Earth. (II) Solar and related energies may not be subject to national appropriation by any means in outer space, including the Moon as well as other celestial bodies; they are for the common good of all mankind. (III) The use of solar and related energy is to be carried out in accordance with international law, including the Charter of the United Nations, the Outer Space Treaty, the international conventions on outer space, and any specialized agencies governing such a system. (IV) The geostationary orbit, in addition to being a limited natural resource, is a common heritage of mankind. (V) Actionable damage includes that caused by solar energy systems to the environment, telecommunications, air navigation or any other type of damage occurring on the Earth's surface, atmosphere, or sea, damaging persons, States, or international organizations. (VI) Any entity capturing and transmitting solar or related energies shall be held strictly liable for all damages occurring on Earth, in the atmosphere, in outer space, or on a celestial body. (VII) A system for the prevention of damage will be ensured in capturing and transmitting solar and related energies in and from outer space taking into consideration the effects such a system may have on the Earth's ecological balance. (VIII) International cooperation will be considered a necessary requisite for the lawfulness of all activities in the solar and related energy fields. (IX) The participation of all countries, as well as technical and other assistance to those lacking the means for exploiting solar and related energies must be assured, bearing in mind, particularly, the needs and interests of countries not yet completely developed. (X) All States shall be on an equal basis, whether or not within the solar belt. (XI) The use of solar and related energies unless exclusively for peaceful purposes is prohibited. (XII) The management of solar and related energies shall be carried out through international machinery with sufficient capacity to ensure its rational and equitable use, and a compulsory tribunal will be established for the settlement of disputes with an efficient means of enforcing its decisions. Those taking part in the drafting of these conclusions urge that they achieve the status of space law principles. These accords, far from covering the entire legal system necessary to govern solar energy, may be seen as an appropriate springboard for further elucidation bearing in mind later legal achievements.5 " During the Plenary Meeting of COPUOS held in New York in August of 1976 the conclusions were introduced by Argentina and incited a brilliant debate. The Argentine effort did not receive sufficient support, however. Thus the issue does not appear as a matter of priority on the COPUOS agenda, in spite of the fact that the consequences of the energy war are increasing daily. All the strategies resorted to thus far are both weak and improper. The adequate forum to deal with the matter is the United Nations, for Space Law, within COPUOS, will undoubtedly provide appropriate solutions. In neither the international nor the regional arena do we have the necessary support to carry the matter through. If the States most adversely affected by the energy war would act with the same resolve as they do in their determination to develop nuclear weaponry, the energy crises could be overcome. Regrettably, not until today has the world realized that economic peace, peace in its broadest sense, will not be achieved via a nuclear explosion as in 1945. We must instead turn to the "solar revolution" which will draw the peoples of this planet together rather than separate and destroy them.

#### China will say yes because of cost sharing and preventing misperception.

Supraja Sudharsan 15, PhD Student studying climate change governance in the Sam Nunn School of International Affairs at the Georgia Institute of Technology, “Space Solar Power for Global Energy Supply based on Low-Cost Access to Space,” Submission for Energy Supply 2015 Contest, Climate CoLab, https://www.climatecolab.org/contests/2015/energy-supply/phase/1309143/proposal/1320196

Investment: In addition to establishing a coalition of governments as discussed in technology deployment, coordination of regulations and introduction of policies that enable funding for SSP program are necessary to achieve faster return-on-investment. Some policy prescriptions are discussed below: 1. Seed funding that would support conceptual and preliminary design of the system, eventually leading to greater industry involvement towards detailed design. The DoE has already enabled development of the solar power industry through this mechanism. This is therefore in line with existing US government strategy to develop the renewable energy industry.[vii] 2. Provision of incentives and tax advantages for ownership of space assets to industry similar to ground-based electricity generation infrastructure in order to increase long-term investment in SSP. One instance is the expansion of feed-in tariffs to include SSP.[xviii] 3. Review International Traffic in Arms Control (ITAR) policies in order to enable cooperation and transfer of SSP technology across countries. 4. Establishment of transmission regulations, allocation of frequencies. 5. International approach to space solar power: Coalition among major powers would provide an incentive for states to share in the initial costs of Research and Development - This is possible due to existing interest in space exploration and SSP among major powers towards implementing space solar power, namely, USA, China, Japan, Russia, the EU and India.[viii] 5. Coalition among the major powers would also help to establish transparency over space activities as well as prevent incentives for an arms race in space, thereby deterring attack against space assets.[ix, x] - Existing treaties not sufficient to prevent arms race and weaponization of space: Outer Space Treaty of 1967 that constitutes 103 countries and aimed at ensuring peaceful exploration of space is not sufficient owing to disagreement over language namely, what is considered peaceful use of space and what is not.[xi] - EU Space Code of Conduct (2008) is a non-binding treaty with rules to be voluntarily adopted by space-faring states and therefore, is not sufficient deterrence to preventing a space arms race. 6. Establish joint operation of SSP and sharing of data to meet common interests in regulating space traffic and preventing loss of systems due to space debris.[xii] 7. Innovative financing mechanism would also be useful in ensuring economic viability 8. Inclusion of social cost of carbon to include avoided cost of carbon-dioxide and carbon-dioxide equivalent would increase viability compared to competing electricity generation sources.[xiii] Behavioral Norms: 1. Social acceptance of SSP depends on cultural and social norms and how society values energy security and environmental protection. [xiv] 2. This would vary geographically, among developed and developing states as well as between developed states that may value clean energy differently. 3. Changes to market structure in the energy industry: In the case of space solar power, the primary changes to the electricity network would be in generation and transmission. Therefore, if economic viability is established, it would be reasonable to assume that primary changes would need to take place in existing market structure namely, over ownership of assets at different stages of generation and transmission. 4. A disadvantage is that this would reduce consumer control over the energy infrastructure. End-user would continue to be the consumer rather than a contributor to developing clean energy infrastructure Who will take these actions? Countries that have currently active space programs such as USA, EU, China, Russia, Japan and India need to come together in order to fund the program and incentivize other countries and the private sector in the development of SSP . This is possible as several of these countries are already involved in research under their respective national space agencies. For instance, Japan is leading R&D of wireless transmission technology towards demonstrating feasibility of SSP.[xvi] In 2010, China revealed its plan to develop SSP and obtained funding for the same from Chinese Ministry of Industry and Information Technology.[xvii] There are other reasons that make SSP a viable source of global energy supply and provide incentives for countries to cooperate now. These include prevailing domestic politics over development of nuclear power, surging energy needs in China and India, increasing efforts towards curbing climate change by countries, industries and NGOs globally, as well as concerns over prevention of weaponization of space, all provide an incentive for the major powers to cooperate on SSP. The specific technologies (such as solar panels, carrier vehicle design, wireless power transmission) can be outsourced to capable private industry partners as necessary, however the above countries would assume the leadership role due to their credibility with space exploration technologies. Where will these actions be taken? 1. R&D: The R&D work will be carried out multi-nationally among partnering countries with university partnership. The R&D work includes all three phases of design namely, conceptual, preliminary, detailed designs and flight testing of the prototype. 2. Manufacturing to be carried out in partnership with major aircraft manufacturers in the United States and the EU. 3. Launch site for SSP may be anywhere in the world because the carrier vehicle in the TSTO system can ferry the orbital vehicle anywhere necessary. However, equatorial states like Ecuador, Northern Brazil, Gabon, Congo, Kenya, Malaysia, Indonesia, and Papua New Guinea are advantageous because greater gravitational assistance to space launch. How much will emissions be reduced or sequestered vs. business as usual levels? In general, solar power generation does not emit Greenhouse Gases. Therefore, theoretically, 100% of the global industrial and domestic energy supply is free of emissions. However, this depends on number of launch sites used over the years and launch rate. Assuming increasing number of launch sites and launch rate as in table 2, approximately 30% of global emissions may be expected to be reduced in 10-15 years from SSP operation. What are other key benefits? 1. As source of baseload power: Existing solar generation infrastructure are not used to provide baseload power owing to variability of sunlight on earth. SSP would provide uninterrupted power supply and therefore a way to move away from baseload coal power plants. 2. Cooperation over security and prevention of an arms race in space: There is greater incentive among participating countries to prevent weaponization of space and proliferation of anti-satellite weapon capabilities (eg: Chinese use of anti-satellite weapon to destroy its satellite in 2007). 3. According to a study by the National Security Space Office, it has been suggested that the DoD is a potential “anchor customer” to provide power from space solar for forward bases deployed across the globe.[XV]

#### Policy change coupled with technology transfer is the best path to address the disparate impact of warming---advocacy makes it more likely and is necessary despite the inherent limitations of privileged positionality

Cynthia D. Moe-Lobed 15, Professor of Christian Ethics at Pacific Lutheran Theological Seminary, “Climate Debt, White Privilege, and Christian Ethics as Political Theology,” in Common Goods: Economy, Ecology, and Political Theology, Ed. Johnson-DeBaufre, p. 289-301

Ethics commonly is seen as a normative discipline—responding to the question of “What ought to be?” or “What ought we do and be?” Christian ethics as a political theology, however, brings a fierce commitment to engage also the descriptive task of ethics—to ask “What is?” and to do so from a critical perspective. By this I mean a perspective that brings power dynamics to the center of ethics and seeks an understanding of reality that prioritizes perspectives from the margins of power and privilege.6 A caveat is necessary: No person situated in privilege can claim to read reality from the margins. However, a critical perspective holds that one can and must make every effort to do so, always acknowledging the limitations of that effort. That is a central challenge and commitment of Christian ethics done from positions of historically accrued privilege. This challenge bears four implications. They are staunch commitment to (1) disclose where power imbalance and its consequences go unacknowledged, (2) ferret out historical and structural roots of those power asymmetries and the inequity that they breed, (3) acknowledge their cumulative consequences, and (4) accept commensurate moral responsibility. Let us see what happens in an ethical account of climate change shaped by these four commitments. First, however, a word about “who.”7 This essay grapples with the moral dilemma of a particular people of whom I am one. I speak of this people as “we,” referring to U.S. citizens who also are white and are economically privileged.8 We are material beneficiaries of the colonial and neocolonial history that has shaped life on Earth in the last half millennia. We are descendants of the tribes of Europe who colonized four continents and ravaged their peoples, and we have inherited the material wealth accumulated in that process. Moreover, our material lives are dependent—again through political, economic, and military systems—on the current exploitation of people and natural goods the world over. Finally, as citizens of a “democracy,” we have—at least theoretically—the political agency to challenge those systems. (Much of what I say herein may pertain to U.S. citizens who are not white-identified or who are not economically privileged, or to other people of the Global North. However, the “we” here is more specific.) I recognize that the boundaries of this “we” are ambiguous. In many senses, all U.S. citizens participate in economic and ecological exploitation, yet many also are exploited through inadequate wages, nonexistent or sparse benefits, poor working conditions, wage theft, regressive taxation, conversion of affordable housing, exorbitant health care costs, and more. As a result, many live in poverty that may have life-threatening consequences or maintain a constant struggle to avoid poverty. These people are not my primary audience, but more important, they are not the “we” of whom I speak. This is crucial. Ethical obligations are particular. God’s call to love neighbor as self— arguably the basic moral norm of Christian life—takes divergent forms depending on just who that “self” is. I move now to formulate an ethical account of climate change that takes seriously a theologically rooted commitment to power analysis and to the wellbeing and perspectives of people of the margins. Disclose Power Imbalance and Its Consequences White privilege is one axis of asymmetrical power in the United States. A system of privilege exists when one category of people is denied something of value in a society simply because they are considered a part of that category.9 A central feature of a system of privilege is “dominance.”10 This means that people of the privileged category tend to occupy positions of power. Not all people in the dominant category are powerful, but positions of power are disproportionately filled by the privileged category.11 In our world today, the people who determine policies that affect climate do not tend to be those who are losing their homes or livelihoods due to climate change. The indigenous residents of Alaskan villages currently being lost to rising seas, the victims of malaria’s increase as a result of climate change, and the estimated twenty-five million environmental refugees are not at the tables of power in climate-related policymaking. The environmental justice movement is committed to uncovering and dismantling “the unequal protection against toxic and hazardous waste exposure” experienced by communities of color and impoverished communities. However, at the heart of that movement is the commitment also to expose and undo the systematic exclusion of people of color from environmental decisions affecting their communities. That is, the environmental justice movement addresses power imbalance. Denial—a second defining feature of privilege systems—allows the sinister dynamics of privilege, including asymmetrical power relations, to continue unrecognized by those who benefit from them. U.S. history is shaped by denial of white privilege. The sociologist George Lipsitz writes that in the United States clear perception of the present “requires an understanding of the existence and the destructive consequences of the possessive investment in whiteness that surreptitiously shapes so much of our public and private lives.”12 Denial means denial of the existence of privilege and of the power imbalances that sustain and flow from it. Ignoring the mounting ecological debt and its deadly consequences is also ignoring the white privilege inherent in it. Entitlement is a third hallmark of white privilege and other systems of privilege. As a whole, the descendants of Europe in the United States have assumed that we are entitled to use of the ecosphere as a carbon dump site. We tend to assume that if I have earned my money, house, car, yard, and vacation by my hard work, then I have the right to use them, to build my life as I see fit within the norms of my society and the limits of the law. Dominance—or power imbalance—is a central feature of privilege. Denial and entitlement, two other linchpins of privilege, attempt to justify or legitimate that power imbalance. In light of “our” finely honed ability to maintain power structures that exploit people of color and impoverished people, deny that our material wealth is built on exploitation, and assume our entitlement, it is likely that the dominance, denial, and sense of entitlement inherent in climate change will continue unless explicitly resisted. This would mean continuing not to recognize and take moral responsibility for the disproportionate impact that climate change has on people of color and economically impoverished people. More important for our purposes here, it would mean denying the disproportionate responsibility borne by the world’s high-consuming minority—largely white. In this case, we, the high-consuming and economically privileged minority, would continue to: Respond to climate change in ways that reduce our carbon footprint and protect ourselves from the worst of the disastrous impact Respond primarily with charitable assistance to mitigate the disastrous impacts of climate change on vulnerable people of the Global South Assume that all nations have equal obligations to reduce carbon emissions Fail to compensate for climate debt. The probable consequences are sinister. To illustrate: When yields of the world’s staples diminish due to rising temperatures, neoliberal international trade and investment mechanisms (“free” market) would enable corporate agribusiness and the finance industry to raise prices and maximize profit. In the process, those of us with investments in those industries would gain financially, whereas impoverished people would be priced out. That is, once again economic policy would engender starvation.13 The norms of dominance, denial, and entitlement have been built over the centuries. Acknowledge Historical and Structural Roots Christian ethics’ effort to read reality for the margins of power and privilege entails looking beyond apparent causes to their structural and historical roots. Two historical dynamics—colonialism and neoliberalism—link climate change to white privilege and class privilege. COLONIALISM Colonialism established the legal and moral norm: According to the Doctrine of Discovery, Europeans and their descendants had the divinely mandated “moral and legal right . . . to invade and seize indigenous lands and to dominate Indigenous Peoples,” regardless of the cost to those lands and peoples. Exploitation and domination were morally mandated. These patterns continue today to shape distribution of power and of the goods necessary for life with dignity. The World Council of Churches, in repudiating the Doctrine of Discovery, writes: Patterns of domination and oppression that continue to afflict Indigenous Peoples [and other communities of color] today throughout the world are found in numerous historical documents such as Papal Bulls, Royal Charters and court rulings. For example, the church documents Dum Diversas (1452) and Romanus Pontifex (1455) called for non-Christian peoples to be invaded, captured, vanquished, subdued, and reduced to perpetual slavery and to have their possessions and property seized by Christian monarchs. Collectively, these and other concepts form a paradigm or pattern of domination that is still being used against Indigenous peoples.14 NEOLIBERALISM Neoliberalism (or corporate colonialism) deregulated and reregulated finance and trade in order to remove democratic constraints to maximizing wealth accumulation and concentration.15 Elsewhere I have identified defining features of the neoliberal global economy, its constituative elements, and its impact on economic disparity and ecological degradation.16 Suffice it here to note that neoliberalism opened floodgates to extractive industries and the exploitation of both labor and Earth’s goods. According to a United Nations Human Development Report, by the late twentieth century—after two decades of neoliberal policies and practices—225 people had wealth equal to that of 47 percent of humankind.17 For many, poverty spells death. Commonly known as “free trade,” neoliberalism reregulated not only trade but also finance. With financialization of the global economy—what I have called the “free investment” agenda—trade in money products far outpaced trade in goods and services. Speculative investment by the few, unaccountable to any bodies politic and not paying commensurate taxes to them, soared. Wealth, and with it power, was further concentrated in few hands, as became evident in the recent (and ongoing) global financial crisis. Neoliberalism has two broad impacts on climate change and climate debt. The increase in trade and Foreign Direct Investment (FDI)—especially in extractive industries—results in increased GHG emissions, including emissions from the use of extracted oil and coal. Second, the financial benefits of carbon-fat industry and commerce accrue disproportionately to large corporations and finance institutions whose beneficiaries are people of the Global North. Acknowledge Cumulative Impacts Viewing inequity with an eye to cumulative impacts is a third requirement of Christian ethics’ effort to read reality from the undersides of power and privilege. Colonialism and neoliberalism produced vastly unequal access to Earth’s natural goods, aggravating poverty and the wealth gap. “[The global poor] and we depend on a single natural resource base, from the benefits of which they are largely and without compensation, excluded. The affluent countries and the elites of the developing world divide these resources . . . without leaving ‘enough and as good’ for the remaining majority of humankind.”18 This misdistribution of access to water, land, and mineral wealth was an initial form of ecological debt. To it was added another—the corporate practice of transferring ecologically dangerous production plants to countries of the Global South in order to avoid environmental regulations.19 “Pollution havens” joined tax havens.20 If maximizing profit is the primary goal and value of corporate activity, then moving plants to where costs of production are cheaper is “necessary” and “good.” The ensuing environmental devastation to workers and to the people whose water and food are poisoned and whose homes and farmlands destroyed does not count. Yet the corporate profits are applauded on Wall Street. Climate injustice is the most recent form of ecological debt. With greenhouse gas emissions, notes ethicist Michael Northcott, “the rich are using the atmosphere of the poor to absorb their waste carbon.”21 Some activists and theorists of the Global South refer to this as climate colonialism. The National Council of Churches in India declares: Climate change and global warming are caused by the colonization of the atmospheric commons. The subaltern communities are denied their right to atmospheric commons and the powerful nations and the powerful within the developing nations continue to extract from the atmospheric common disproportionately. In that process they have emitted and continue to emit greenhouse gases beyond the capacity of the planet to withstand. However, the subaltern communities with almost zero footprint are forced to bear the brunt of the consequences of global warming.22 In an eloquent plea to the world community, Mohammed Nasheed, president of the Maldives, implored: “Please ladies and gentlemen, we did not do any of these things [lead high carbon-emission lifestyles], but if business goes on as usual, we will not live. We will die. Our country will not exist.”23 William Rees and Laura Westra make the case that excessive consumption translates into “violence” against those who suffer most from climate change. “Not acting to reduce or prevent ecoinjustice,” they write, “would convert erstwhile blameless consumer choices into acts of aggression.” “Over-consuming nations (and individual over-consumers) must come to terms with the fact that the ancient concept of gluttony-as-deadly-sin has acquired new modern meaning.”24 Assume Moral Responsibility The fourth and most challenging piece of Christian ethics’ commitment to the margins is accepting the moral responsibility produced by the structural power imbalance, historical roots of that power asymmetry and of climate change, and the cumulative impacts of these dynamics. If climate change were not connected, historically and contemporarily, to our overconsumption and to the public and corporate policies, power alignments, and practices that enable it, then dramatically reducing our carbon footprint and giving charitable relief and assistance would be ethically adequate responses to climate-related suffering. We would be called to “greener” living and to generosity in helping the victims. Climate policy and energy policies could aim primarily at emissions reduction. However, this response is an utterly inadequate and deceptive moral lens if we play a significantly disproportionate causal role in climate change, have benefited from it, and have the resources and political freedom to do something about it. If affluent societies are disproportionately responsible for climate change, and if those societies have accumulated their wealth historically and contemporarily from fossil-fuel-based economies that have generated the climate crisis, then emissions reduction and assistance for climate refugees and for mitigation, while a moral imperative, is not a morally adequate response. The matter is made worse if those culpable societies have produced economies that impoverish vulnerable peoples, thus rendering them less able to survive the vicissitudes of climate-change-related “nature disasters.” These connections hurl our moral world into tormenting tumult. Life lived in ways that cost other people their lives, where alternatives exist or are in the making and where political action toward them is possible, is not a moral life. What would it mean to accept moral responsibility for climate change as a matter of white privilege and climate debt? The remainder of this essay probes that question. MORAL RESPONSE A paradox haunts the urgent quest for moral power in the face of climate change—especially as complexified by the reality of white privilege, class privilege, and climate debt. On the one hand, a large sector of U.S. society does not “get it.” They do not realize the magnitude of ecological danger, the brutal consequences for people most devastated by it, and our vast culpability. Not recognizing the dire threat, they do nothing to address it. On the other hand, when denial is overcome, an impending sense of doom and powerlessness may loom, threatening to overpower any sense of moral power to “do something” that will “make a difference.” Said differently, we cannot meet the challenge of climate change unless we see what is going on. Yet the more one knows, the more powerless one may feel. The knowledge necessary for moral acting also impedes it. The challenge, then, is not merely unmasking the systemic and historical roots and consequences of climate change but doing so in ways that evoke moral action. Morally Empowering Vision I am convinced that moral power is enabled by holding steadfastly to three forms of vision: Seeing “what is going on.” Seeing “what could be”—that is, more just and sustainable alternatives to “the way things are” that are emerging in principle, public policy, and practice around the globe. Seeing ever more fully the sacred Spirit of life coursing throughout creation and leading it—despite all evidence to the contrary—into abundant life for all. The third of these acknowledges or hopes for sacred powers at work in the cosmos enabling life and love ultimately to reign over death and destruction. It confirms what the ecotheologian Sallie McFague refers to as “our hope against hope that our efforts on behalf of our planet are not ours alone but that the source and power of life in the universe is working in and through us for the well-being of all creation, including our tiny part in it.”25 Christian ethics, as a form of political theology, has at its heart the crucial task of holding these three in one lens. Vision of this sort is subversive because “it keeps the present provisional and refuses to absolutize it.”26 It reveals a future in the making and breeds hope for moving into it. Behavioral, Structural, and Consciousness Change: An Interplay The second mode of vision—alternatives to “the way things are”—is in itself an invitation to reductionism. It is often evident in my classrooms. Many of my students argue that structural change in the form of major public policy change, legal mandates, and large-scale institutional change is the only path to a more just and sustainable future. Lifestyle or behavioral change (e.g., riding bikes or buses instead of driving, giving up beef and packaged food, drinking fair trade coffee, boycotting Walmart, shopping at co-ops and farmers markets), they insist, is ineffectual and relatively insignificant. Other students argue the opposite. Social structural change, they aver, will not occur to the extent that we need. What is needed are individual people and households deciding to live in ways that are ecologically sound and economically nonexploitative and then doing so (behavioral change). Still others focus on major underlying change in consciousness. What is needed, they assert, is a “new story,” a vastly recalibrated cosmology and moral anthropology. Few concepts are more important to moral agency than recognizing the constructive interplay between changes at these three levels: behavioral and structural levels and the level of consciousness. They are woven together on the path toward climate justice. A fuller treatment of climate change as a matter of climate debt and white privilege would explore all three strands and their intertwining. The limitations of a single chapter focus our attention here on what may be the most complex and contested of these three arenas of change: structural change—that is, change in public policy, corporate structure and operations, and other societal institutions. To illustrate, I focus even more specifically on one aspect of structural change: public policy.27 Public policy is a worthy focus because, while often considered a vehicle of structural change, it also is a potent shaper of human behavior and consciousness. Public policy related to climate change and energy will increasingly be at the forefront of public debates at both national and international levels. Public policy advocacy is one gateway through which U.S citizens who also are privileged by color and class may address climate change not only as a matter of sustainability but also of climate debt and the undue “privilege” produced by whiteness and class status. Needed are guidelines for that stream of action. Four Principles Enter here the power of guiding principles as criteria for policy formation and assessment. As noted at the outset, often in climate discussions, the guiding principle is ecological sustainability. Alone, however, this principle fails utterly to address the white privilege, class privilege, and climate debt aspects of climate change. To address these issues calls for ecological sustainability to be joined by three other principles. Climate policy will be guided by the principles of sustainability and principles of:28 Environmental equity: Policy will promote equity in use of environmental space and will seek compensation for ecological debt. Economic equity: Policy will prioritize meeting human needs and Earth’s needs over maximizing profit and accumulating wealth. Economic democracy: Policy will promote distributed and accountable economic power. The Four Principles Illustrated: Climate Policy How are responsible citizens to enact these four principles in public policy advocacy? What are the public policy implications of taking responsibility for climate debt and the environmental racism inherent in climate change? How might these four principles inform public policy formation and advocacy? The relevant moral questions here include: Who should bear the costs of mitigation (efforts to reduce emissions and increase carbon sinks), and to what extent does that depend on historic responsibility for climate change and the capacity to bear the costs?29 Who should bear the cost of adaptation (efforts to minimize the damages that will occur due to climate change—e.g., flood prevention, crop changes, development of medicines to deal with spreading diseases—and dealing with the damages that do occur), and to what extent does that depend on historic responsibility and the capacity to bear the costs? Climate policy conceptualizes financial responsibility for mitigation and adaptation in terms of nations. However, the “benefits” accrued from processes that emit greenhouse gases are not evenly distributed within nations. (For example, the wealth accrued in the United States through petroleum extraction around the globe has not been equitably distributed within the United States.) Nor are the burdens of climate change equitably distributed within nations. What sectors within the United States have the right to the costly protection mechanisms against climate-related disasters and protection from the rising costs of energy? What sectors of U.S. society ought to bear the costs of financing adaptation and mitigation in impoverished areas? Enormous profits continue to be made by fossil-fuel extractive industries. Who ought to be substantively involved in making decisions regarding whether U.S.-based extractive industries are allowed to operate, especially on Indigenous lands or lands of other marginalized communities? Response to these questions is different if guided by the four aforementioned principles than if guided singularly by the principle of ecological sustainability. For example, the principle of democracy would call for participatory and publicly accountable decisions about extractive industries. People most affected by the industries’ operations would have a substantive role in decision making.30 Public policy guided by the principles of economic equity and environmental equity would assume historical responsibility and acknowledge cumulative impacts by applying what the United Nations Framework Convention on Climate Change (UNFCCC) calls “common but differentiated responsibilities and respective capabilities” (art. 3.1). That is, national, local, and state public policy and international negotiations would require wealthy countries that have been major per capita emitters in the past to take the lead in emissions reductions and in assisting developing countries’ adaptation and mitigation efforts through finance and technology transfers. The reasons are two: accounting for historic responsibility and greater existing financial and technological resources. The UNFCCC says as much. Wealthy countries, it declares, shall provide financial resources and technological transfers needed by countries of the South for mitigation and adaptation (art. 4.3). This includes funding to “keep petroleum in the ground in fragile environments.” Domestic policy would allow need and human rights to determine allocation of resources for adaptation and mitigation in the United States rather than the ability to pay (market). This would enable communities of color and low-income communities to benefit from relief and rescue, protection measures, energy cost subsidies (to mitigate increased energy costs), health care for climate-change-related disease, and so on.

#### Demands for climate action are not naïve optimism or a teleological orientation toward progress, but a militant recognition that social systems are incomplete and open to revision, requiring bold collective action to remain within planetary boundaries---forgoing this in favor of individualist orientations or stoic resignation colludes with violence

Ted W. Stolze 18, Ph.D. in Philosophy from Claremont Graduate University, “Against Climate Stoicism: Learning to Fight in the Anthropocene”, in Interrogating the Anthropocene: Ecology, Aesthetics, Pedagogy, and the Future in Question, Ed. Jagodzinski, p. 318-328

Although this is a debatable interpretation, 3 Evans’s point is clear: For Epictetus—and, by extension, for other Stoic philosophers as Musonius Rufus, Seneca, and Marcus Aurelius—there is precious little that human beings can do to alter the external world; and so we should get on with adapting to, especially by reevaluating, forces, obstacles, and opportunities coming from outside of themselves. But why must we draw such a sharp contrast between “things that are in our power” and “things that are not in our power”? It would appear that many things are better described as *partially* or *largely but not exclusively* in our power. Moreover, many things are not in our *individual* power but to some extent may be in our *collective* power. 4 For example, in *The Eighteenth Brumaire of Louis Bonaparte* Karl Marx addressed the blasted hopes of the revolutionaries of 1848 by pointedly observing that human beings cannot make history “just as they please in circumstances they choose for themselves” 5 ; but this hardly entailed for him that they cannot make history at all. Indeed, Marxists have standardly argued that human acting in the world cannot be reduced to an all or nothing prospect: Either full-fledged causal determinism or else an “out-of-gear freedom” that would disengage “our choices from causal interaction with the world” and so “ward off the threat that the nature of that world might limit or determine them.” 6 Perhaps the liveliest illustration of the classical Marxist position on the “relative autonomy” 7 afforded human beings in their individual and collective pursuits has been provided by Norman Geras, who devised the following thought experiment: A length of chain secures me by the ankle to a stout post. This limits what I can do but also leaves me a certain freedom. I can stand or sit, read or sing. I cannot play a decent game of table tennis, however, and cannot attend social functions or political meetings at all. The chain not only limits me, negatively; it also compels me to certain actions. The way it is fixed to my leg, I must keep adjusting how it lies, otherwise it begins to hurt me. I must apply medicaments periodically to sores which develop around my ankle. And so on. Understanding my situation more or less, I enjoy a relative autonomy: the chain and post are fundamental determinants of my lifestyle but they do still leave me scope for independent decisions. 8 As I shall argue below, Epictetus’s searching question of what lies is in our human power and what does not has profound bearing on the philosophical challenges posed by the new geological epoch which humanity has forced upon the Earth—the Anthropocene . 9 However, as I shall equally argue, in the Anthropocene the key question for philosophy is not learning to die but learning to *fight*. \*\*\*\* We have entered a period in which extreme skepticism about climate change—usually termed *climate denialism* 10 —has been increasingly been replaced by what we could call *climate stoicism* , namely, the attitude that dangerous climate change must be accepted as an external force beyond human control. 11 There is supposedly nothing that can be done except to prepare for, and cope with, the inevitable deterioration of life on Earth. For example, in his existentially riveting but unremittingly bleak book Learning to Die in the Anthropocene , Roy Scranton has written that “we have entered humanity’s most philosophical age, for this is precisely the problem of the Anthropocene. … The rub is that we have to learn to die not as individuals, but as a civilization.” 12 Although Scranton’s philosophical frame of reference is not narrowly Stoic (he draws on a wide range of authors and texts 13 ), his perspective remains one that falls back onto the classical distinction between what lies (a) within our power (not much other than beliefs) and (b) what lies outside of our power (virtually everything else): We have failed to prevent unmanageable global warming and that global capitalist civilization as we know it is already over, but … humanity can survive and adapt to the new world of the Anthropocene if we accept human limits and transience as fundamental truths, and work to nurture the variety and richness of our collective cultural heritage. Learning to die as an individual means letting go of our predispositions and fear. Learning to die as a civilization means letting go of this particular way of life and its ideas of identity, freedom, success, and progress. These two ways of learning to die come together in the role of the humanist thinker: the one who is willing to stop and ask troublesome questions, the one who is willing to interrupt, the one who resonates on other channels and with slower, deeper rhythms. 14 In the rest of his book Scranton sets forth and develops several key points that may be enumerated as follows: 1. An empirical claim that extremely dangerous climate change cannot be mitigated; 2. An empirical claim that climate change is the ultimate outcome of a human nature that is deeply flawed; 3. A conceptual claim (borrowed from Peter Sloterdijk) that philosophy serves as a kind of “interruption” of social background assumptions and daily interactions. 15 Allow me to consider these claims in order. The first two chapters of Scranton’s book offer a genealogy of “human ecologies” in order to highlight the extent to which “carbon-fueled capitalism” has become a “zombie system, voracious but sterile,” and ecologically unsustainable. 16 Although Scranton offers ample evidence to convey both the seriousness of human-caused climate change and the urgent need for action, he maintains that it is likely too late for *effective* action. This is because climate change poses an especially “wicked problem.” 17 What is at issue, though, is not the difficulty of addressing climate change—and other human pressures on the Earth System—but soberly trying to conceptualize feasible solutions and figuring out how best to motivate and sustain political action on behalf of such solutions. For example, Johan Rockström and other climate scientists have drawn up an inspiring “roadmap for rapid carbonization” by 2050. 18 Their guiding idea is to frame the “decarbonization challenge” in terms of a “carbon law” (analogous to “Moore’s Law,” which projects that the number of components per integrated circuit will double approximately every two years 19 ) that will lead to cutting in half “gross anthropogenic carbon dioxide (CO2) emissions every decade” and ultimately result in “net-zero emissions” around mid-century, a path necessary to limit warming to well below 2°C.” 20 The key question remains, though, how to build and sustain the global political movement required to mount sufficient pressure on the world’s governments to implement such a roadmap. Scranton, however, derides concerted efforts at sociopolitical and technological change as arising from a primal but ultimately futile drive: You’ve heard the call: We have to do something. We need to fight. We need to identify the enemy and go after them. Some respond, march, and chant. Some look away, deny what’s happening, and search out escape routes into imaginary tomorrows: a life off the grid, space colonies, immortality in paradise, explicit denial, or consumer satiety in a wireless, robot-staffed, 3D-printed techno-utopia. Meanwhile, the rich take shelter in their fortresses, trusting to their air conditioning, private schools, and well-paid guards. Fight. Flight. Flight. Fight. The threat of death activates our deepest animal drives. 21 Let us neither fight nor flee, he suggests, but resolutely stand our moral ground and die with dignity. \*\*\*\* If indeed the rise of the Anthropocene had imposed a collective death sentence on humanity, then Scranton’s principled position would in its own way be admirable. In the last instance, however, his grim vision of climate destabilization derives from his equally grim view of human nature as fundamentally greedy, violent, and self-deluded; an original sin without prospect for redemption. He writes that: for most of human history, violence has been a central element of social conflict. The first clear evidence of mass human violence is as old as civilization; the first evidence of its end has yet to be seen. … The long record of human brutality seems to offer conclusive evidence that both individual and socially organized violence are as biologically a part of human life as are sex, language, and eating, that aggression and the drive for dominance are neither vestigial atavisms nor social maladaptations but rather species traits, and that we have little reason to hope that war and murder might someday disappear. 22 This is a tendentious passage, to say the least! A wide range of social scientists have offered compelling evidence that human violence is largely socially constructed and has to do with background conditions of social inequality. 23 Likewise, primatologist Frans de Waal’s research has led him to conclude that nonhuman animals exemplify a range of moral behavior, from fairness and reciprocity to altruism. 24 In this passage and throughout his book, Scranton expresses a perspective that human beings are innately disposed to violence and war. Following Douglas Fry, we could call such a view “man the warrior,” according to which, humans (especially males) are warlike by nature. Advocates of this perspective forge a tight evolutionary link between chimpanzee and human violence, emphasize sex differences in aggression, and recite a litany of barbarity, atrocity, and brutality to support this portrait of humanity. The validity of this ‘man the warrior’ view may seem rather obvious; after all, we all know that humans make war and that wars always seem to be raging somewhere. However, a different – but not polar opposite – perspective will be suggested in this book. According to this new view, clearly humans are capable of creating great mayhem, but they also have a remarkable capacity for working out conflicts without resorting to violence. Specifically, a careful reexamination of the actual evidence will lead us to the conclusion that humans are not warlike by nature. 25 By contrast, then, Fry provides substantial “macroscopic” 26 anthropological evidence that “warfare is not inevitable and that humans have a substantial capacity for dealing with conflicts nonviolently.” 27 He worries that: widespread beliefs that war is natural and acceptable hinder the search for alternatives—and thus the inevitability of war becomes a self-fulfilling prophecy. Such beliefs may be detrimental both to preventing particular wars and to abolishing the institution of war. Perhaps this insight can help us to overcome the problem. 28 Yet it remains possible to “create alternative ways of dealing with international conflicts.” Fry continues: Humans have a solid repertory of conflict management skills to draw upon. Across societies, people are apt preventers and avoiders of violence. Over a vast array of societal circumstances, humans deal with most conflicts without any physical aggression at all. Regularly, the language-using primate ‘talks it out,’ airs grievances verbally in the court of public opinion, negotiates compensation, focuses on restoring relationships bruised by a dispute, convenes conflict resolution assembles, and listens to the wisdom of elders or other third parties who, acting as peacemakers, strive to end the tension within the group and among disputants. As we have considered, humans also routinely show a great deal of self-restraint against acting aggressively. Such restraint makes evolutionary sense and has numerous parallels in other animal species. 29 Consequently, what is required for the resolution of major and conflicts 30 is a new form of identification with others: Anthropology shows clearly that through millennia and across continents humans experience tremendous variation in ways of life and social organization. In foraging bands, individuals identify with their relatives and friends in their own and neighboring bands, in nation states, as Darwin noted, the level of identification generally rises to the country as a whole. This shows that both the social organization and the unit of identification (the ‘us’ compared to the ‘them’) are extremely malleable. A global identification, ‘all of us,’ in addition to lower-level ‘us’ identifications, seems well within the realm of human capacities, especially when our common survival depends on at least enough common identification to put a halt to war and to cooperate to solve global problems that threaten all of us. 31 From the standpoint of a more explicitly philosophical anthropology than Fry’s, let us try to situate Scranton’s conception of human nature in terms of a fourfold classification advanced by Norman Geras. 32 Geras distinguishes the following possible views: a. Human nature is intrinsically evil. b. Human nature is intrinsically good. c. Human nature is intrinsically blank. d. Human nature is intrinsically mixed. Throughout his book Scranton not only rejects (b) and (c); he effectively endorses (a). However, he overlooks option (d), according to which members of our species are not saints, brutes, or empty vessels; rather they are flawed—but improvable— *human beings*. As Geras writes, base or egregious human impulses … are not so all-consuming as to make pervasive and enormous evil forever inevitable, but nor are they so weak or insignificant that they might be conceived as entirely eliminable, as one day gone, as even now ‘really’ something else than they appear, not human impulses after all, but alienated, capitalist, class-oppressive or class-oppressed, patriarchal, corrupted ones. Conversely, benign and admirable tendencies … are not so dominant as to make the possibility of serious human evil only a temporary, albeit long, historical phase which may one day pass, nor so feeble or so sparsely distributed as to make attempts to limit and counteract that baleful possibility a pointless quest. Both sorts of impulses or tendency are conceived … as being permanent features of our nature, realities to be negotiated, lived with, if possible understood – and if possible tilted toward the more benign and admirable, and tilted as far that way as possible. 33 Yet it is precisely option (d) that sustains the “hope of socialism.” As Geras proposes, the goal of a much better and a more just society is to be fought for not just because human beings are by nature overwhelmingly or essentially good, nor because they do not have an intrinsic nature; but because and in spite of the bad combination in their nature of bad impulses with good ones. Because of the bad impulses, this struggle is necessary. In spite of them, it is to be hoped, a socialist society may yet be possible. 34 In sum, the survival of complex human societies in the Anthropocene hinges not only whether or not (d) is a plausible conception of human nature but also on whether or not we can struggle to fashion more egalitarian societies that will both reinforce our good impulses and restrain our bad impulses. This is not just a question of ethical self-fashioning; it remains a properly political project. The only way out of the Anthropocene—and a return to a “Holocene-like” state of the climate—is by moving forward both individually and collectively, indeed, *transindividually*. 35 \*\*\*\* In an unsettling passage Scranton wonders if some of our descendants will “build new cities on the shores of the Arctic Sea, when the rest of the Earth is scorching deserts and steaming jungles.” 36 One could play this survival game and speculate that the fortunate few will relocate to New Zealand, mountainous regions, or abandoned missile silos converted into condo bunkers to serve as a “doomsday prep for the super-rich.” 37 Unfortunately, the elite who could afford to relocate would be the “worst and the dullest” among humanity—those most responsible for the devastation of the Earth System and least likely to have any interest in the new humanism sought by Scranton. The reclamation of humanism can occur only under conditions of mass survival. Moreover, in this twisted variation on “lifeboat ethics” thought experiment, 38 one could insist that it would be better that no one survive than that the affluent minority responsible for the disaster survive while the impoverished majority drown. The world’s non-culpable majority would be justified in capsizing such a lifeboat. Christian Parenti has evoked precisely this specter of a “politics of the armed lifeboat: responding to climate change by arming, excluding, forgetting, repressing, policing, and killing.” 39 But such a politics must at all cost be avoided: “a world in climatological collapse—marked by hunger, disease, ~~criminality~~, ~~fanaticism~~, and violent social breakdown—will overwhelm the armed lifeboat. Eventually, all will sink into the same morass.” 40 Parenti holds out the hope, then, that there is “another path.” Indeed, there is another path: It is both morally preferable and feasible to avoid in advance the brutalizing politics of the armed lifeboat by compelling those in charge of the global economy to remain within the planetary boundaries identified by such Earth System scientists as Will Steffen and Johan Rockström. 41 A symptomatic omission in Scranton’s book is not the ecological threats posed by the Anthropocene but instead any reference to these nine boundaries, which are interlinked Earth System processes and biogeophysical constraints: climate change, changes in biospheric integrity, biogeochemical flows, stratospheric ozone depletion, ocean acidification, freshwater use, land-system change, atmospheric aerosol loading, and the introduction of novel entities. Crossing even one of these boundaries would risk triggering abrupt or irreversible environmental changes that would be very damaging or even catastrophic for society. Furthermore, if any of these boundaries were crossed, then there would be a serious risk of crossing the others. However, as long as these boundaries are not crossed, “humanity has the freedom to pursue long-term social and economic development.” 42 Unfortunately, four boundaries have already been crossed: climate change, changes in biospheric integrity, interference with biogeochemical flows, and land-system change. 43 Humanity soon faces a planetary “tipping point” by which “what we like to think are gradual environmental changes in fact turn into sudden ones that we don’t expect.” 44 However, Ian Angus has provided a vivid analogy to distinguish planetary boundaries from tipping points: The former can “be compared to guardrails on mountain roads, which are positioned to prevent drivers from reaching the edge, not on the edge itself.” 45 As a result, Angus argues, provided that we remain within these boundaries, humanity retains the power to avoid ecological “tipping points” and successfully to resist the Anthropocene even if we cannot reverse it: “The question is not whether the Earth System is changing, but how much it will change, and how we will live on a changed planet.” 46 Jeremy Davies has sharply criticized the concept of “fixed” planetary boundaries as presuming a stable, unchanging Earth. 47 But by analogy one can allow that a building is subject to earthquakes that could devastate it without thereby rejecting the need for build “to code,” which will enable it to survive likely quakes in the future. There is no guarantee, of course, but neither is there any need to reject the use of building codes. Moreover, just because some foolish persons will ignore warning signs near dangerous terrain doesn’t mean that we shouldn’t install them. A road or trail can certainly even collapse where there is no warning sign; but again, this doesn’t mean that such signs are useless. The Anthropocene reminds us that we have remade the Earth in our image and disrupted what came before us. However, we can repair some—if not all—of the damage in ways that protect humanity and other species within a “safe operating space.” Following Geras, it remains possible to defend to a “limited notion of progress and of socialist utopia.” As he insists, To advise resigned acceptance of the world as it is – life-and-death inequalities, universal exploitation, widespread political oppression, festering communal hatreds, genocide, recurring war – … is to eschew a naïve, optimistic teleology, only to speak the script of another, grimmer one. It is to risk making oneself, in a certain manner, the willing voice of ugly moral forces. 48 In this light of this “modest or minimal” conception of utopia, ecosocialists need not claim that human civilization will endure forever or that extinction is ruled out in advance; the question is how to respond now to this climate emergency. The implication of climate stoicism is that human beings are—and should remain—largely passive in the face of a rapidly changing world. But this is morally unacceptable. As Angus writes, We know that disaster is possible, but we refuse to despair. If we fight, we *may* lose; if we don’t fight, we *will* lose. Good or bad luck may play a role, but a conscious and collective struggle to stop capitalism’s hell-bound train is our only hope for a better world. 49 We can and must act *collectively*—and urgently—without guarantee of success. What then is to be done? \*\*\*\* Finally, let us consider the role of the philosopher in the midst of climate destabilization and social upheaval. For Scranton, philosopher best serve as “interrupters.” Following Peter Sloterdijk, Scranton asserts that: The enemy isn’t out there somewhere – the enemy is ourselves. Not as individuals, but as a collective. A system. A hive. How do we stop ourselves from fulfilling our fates as suicidally productive drones in a carbon-addicted hive, destroying ourselves in some kind of psychopathic colony collapse disorder? How do we interrupt the perpetual circuits of fear, aggression, crisis, and reaction that continually prod us to ever more intense levels of manic despair? One way we might begin to answer these questions is by considering the problem of global warming in terms of Peter Sloterdijk’s idea of the philosopher as an interrupter…. What Sloterdijk helps us see is that responding autonomously to social excitation means not reacting to it, not passing it on, but interrupting it, then either letting the excitation die or transforming it completely. Responding freely to constant images of fear and violence, responding freely to the perpetual media circuits of pleasure and terror, responding freely to the ongoing alarms of war, environmental catastrophe, and global destruction demands a reorientation of feeling so that every new impulse is held at a distance until it fades or can be changed. While life beats its red rhythms and human swarms dance to the compulsion of strife, the interrupter practices dying. 50 Doubtless, there is much to be said for this variation on the Socratic style of doing philosophy as a “gadfly” who seek to arouse the sleeping democratic beast. 51 However, as admirable as the philosophical practice of dying may be in the face of insurmountable external threats, 52 it changes nothing and only leaves such threats in place. 53 Much more useful for learning to fight in the Anthropocene is the model of the philosopher as a *militant*. A militant is not someone who is especially angry or impatient but instead someone who pursues a course similar to the one identified by Paul of Tarsus, who movingly wrote in his letter to the assembly of Jesus loyalists in the Roman colony of Philippi in northern Greece that “this one thing I do: forgetting what lies behind and straining forward to what lies ahead, I press on toward the goal for the prize.” 54 Not surprisingly, the Black Freedom Struggle of the 1950s and 1960s in the United States reclaimed this image of keeping your “eyes on the prize” of social justice. 55 It remains an apt image and slogan for the climate justice movement in the Anthropocene. 56 \*\*\*\* But militant philosophers need a concrete way to join with others, by helping to formulate what we might call a transitional program for the Anthropocene as one of the central planks in what Rutger Bregman has called “a utopia for realists”—a utopia that calls upon contemporary “underdog socialists” to abandon their tales of doom and gloom and to reclaim and retell “a narrative of hope and progress … that speaks to millions of ordinary people.” 57 Bregman argues that his own utopian proposal for a radical reduction in the workweek to fifteen hours would not only reduce stress and reduce inequality, it would also “cut CO2 emitted this century by half.” 58 The rise of the Anthropocene demands of humanity not serene acceptance of the end of carbon-fueled capitalist civilization but a bold demand that *Another Anthropocene is Possible*!

#### Only the state has the capacity to effect a rapid, large-scale transition to prevent climate change. This requires wielding power within traditional avenues of politics, not structural critique.

Matthew Miles Goodrich 19, Digital Editor at Guernica, New York State Director for the Sunrise Movement, Writer and Climate Justice Activist, 2-15-2019, “The Climate Movement’s Decades-Long Path to the Green New Deal”, Dissent Magazine, https://www.dissentmagazine.org/online\_articles/sunrise-movement-green-new-deal

That the public sector must be massively mobilized in the fight against climate change has long been a bugbear of the right. But the failure to conceive of just how large a role the federal government will have to play in combating climate change has been the left’s own climate denial. The chasm between our present addiction to fossil fuels and the decarbonized economy the world needs is so daunting that it has proven easier to chant “we have the solutions” than it has been to build the political power to win in government. Hence the Pollyannaish mood among mainstream politicians slapping energy credits on the problem. But Teslas and carbon taxes are unsatisfying responses to a crisis that, as the world’s scientists remind us, threatens to eradicate life on earth. Faced with the prospect of annihilation, however gradual it may be, half-measures do not inspire faith. For much of its history, the climate movement has failed to offer a viable way beyond this impasse. Its organizers and institutions have consistently refused to confront the crisis as a crisis, preferring to view it either as capitalism’s natural conclusion or as a policy problem to be solved by the right wonks. This refusal constitutes, among other things, a refusal of politics—a refusal to articulate grievance through strategic interventions for power that pit a public protagonist against a public villain. Politics that does not contest for power is merely a performance; politics that does so without strategy is a bad performance. It is no exaggeration to say that the climate movement of the past decade has been an apolitical movement for refusing to engage with the basic mechanisms of power. What the occupation of Nancy Pelosi’s office in November 2018, staged by members of the youth-led Sunrise Movement and joined by then-representative-elect Alexandria Ocasio-Cortez, marked was a definitive break with the depoliticized strategy of the climate movement’s past (full disclosure: I’ve been involved with Sunrise since the movement’s launch in 2017). The protest put forward a demand for the total transformation of the economy, not through incrementalist reforms or some kind of messianic, revolutionary episode, but through comprehensive federal legislation: the Green New Deal. The speed at which the Green New Deal has gone from fringe proposal to tentative pillar of many leading 2020 Democratic presidential candidates’ platforms suggests that there is a desire among the majority of Americans for a different approach to climate politics. The Green New Deal makes fighting climate change a political project at a moment when the Democratic Party’s left-flank is resurgent for the first time in a generation. Perhaps paradoxically, a political approach to fighting climate change has, in a moment of political crisis, become a source of hope. The fight for the Green New Deal constitutes a sea change in the climate movement’s modus operandi. Decades removed from the mass politics of the first Earth Day and nearer to when the surveillance state was limited to infiltrating eco-terrorist dens, the mainstream climate movement under George W. Bush worked in self-conscious opposition to politics. The rightful purview of atmospheric gases was science and technology; the squabbles of partisanship could only hold back progress. When Al Gore won the Nobel Peace Prize in 2007 for his work bringing popular attention to climate change, he averred that the “climate crisis is not a political issue.” Climatologist James Hansen, who first testified about the threat of global warming in Congress in 1988, echoed the former vice president’s commitment to y-axes, telling reporters that “climate change should not be a political matter.” Hansen announced his science-first analysis ahead of a nonpartisan campaign to mobilize the youth vote in November 2008. Launched by the Energy Action Coalition, a council of environmental groups that served as nexus of youth climate organizing in the later Bush years, Power Vote named youth as a political identity without the political commitment. As a 501c3 nonprofit, Energy Action Coalition could not campaign for candidates; its electoral analysis was legally limited to bromides about turning every politician into a “climate hero.” In one informational pamphlet, Power Vote dismissed the possibility of victory through partisan politics entirely: “we know that we get lasting change by putting sustained political pressure on elected officials no matter who is in office.” Meant as a bracing call to arms in the spirit of “power to the people,” this admission betrayed an electoral agnosticism antithetical to waging politics. If sustained grassroots pressure was the only source of lasting change, then whoever occupied office was irrelevant. The subtext? Real progress on climate would never come from above. The Obama years proved this right. Paradoxically, a political approach to fighting climate change has, in a moment of political crisis, become a source of hope. To get a sense of just how far removed the climate discourse in 2009 was from naming the specific actors responsible for climate change, we need only ask Donald Trump. Though hard to believe, the real estate mogul signed an open letter in the New York Times ahead of the Copenhagen climate summit urging “meaningful and effective” climate action. The coalition behind the letter, businessleaders4environmentalchange.us, did not specify a policy to lower “emissions targets,” but Beltway wisdom of the day held that only one mechanism had a decent shot becoming law: an emissions trading program known as cap-and-trade. This market tweak may have proven a modest success in mitigating carbon emissions, but it neither met the immediacy of the crisis nor inspired its supporters to greater political participation. Not for lack of trying: only weeks after Obama’s inauguration, Energy Action Coalition called Power Shift 2009, a gathering of 12,000 young people in Washington, D.C. for what it called the “largest citizen lobby day in history.” By June, Energy Action Coalition was mobilizing its youth base to pass a cap-and-trade bill through the House of Representatives. In calling on legislators to pass a technocratic bit of market reform, the youth of the climate movement demonstrated an understanding of political power alien to their more institutional brethren. It was, unfortunately, far from enough to pass the bill. The D.C. environmental policy shops privileged backroom deals over popular mobilizations. Big Green groups like the Environmental Defense Fund and Natural Resources Defense Council, partnering with industry CEOs, chose expediency over strategy in their attempts to bring federal climate legislation to fruition. When corporate interests bailed on the alliance, the cap-and-trade bill, already riddled with exemptions, lacked a constituency to defend it. It foundered. By eschewing the public contest for power in politics in favor of the private transactions of business, the Big Greens left the Democratic Party to defending the validity of science for years. The subtitle on the cover of Naomi Klein’s fourth book, This Changes Everything, sums up the lessons that the younger activists of the climate movement drew from the cap-and-trade fight. The stark sans-serif of “capitalism vs. the climate” conveyed with almost cartoonish gravity this generation’s radicalization against its establishment counterparts. In four words, Klein distilled the confrontational impulses of the climate movement’s new politics—to name the enemy in the broadest possible terms, and fight without compromise. It’s worth noting how Klein came to give climate change, in her words, “the crisis treatment.” One of the anti-globalization movement’s leading intellectuals, Klein understood firsthand how masses of citizens taking direct action could force a reckoning between the people and the elite. But it was not until she understood climate change as a galvanizing force for scaled solutions—a Marshall Plan for the earth, as described by the Bolivian ambassador to the World Trade Organization, a shock doctrine for the left, a Green New Deal—that Klein began to view the crisis as a political struggle. In the wake of Great Recession, she writes, “we had all just watched as trillions of dollars were marshaled in a moment when our elites decided to declare a crisis.” A mass movement need only apply the same logic to climate change in order to turn it into “the best argument progressives have ever had to demand the rebuilding and reviving of local economies.” The technocratic capture of climate policy at the time, however, meant that Big Green’s response to the crisis was neither positive nor galvanizing. Failing to summon the requisite moral urgency, the environmental institutions that tried to broker the cap-and-trade deal between business and bureaucracy disillusioned the younger members of the movement from the possibility of substantial government action on climate. For many, the task, henceforth, was the destruction of the system writ large. This Changes Everything signaled the rise of the movement’s more radical faction. More confrontation was necessary to fight the corporate interests that had scuttled previous climate efforts. Driven by protests against fossil fuel infrastructure by indigenous peoples and environmental justice organizations, the movement found a public enemy in the carbon industry. Whereas the institutions backing cap-and-trade centered the climate debate around individual consumer choices amid tweaks to the market, this more combative generation began to frame the crisis as a battle between corporations and the people, capitalism versus the climate. The campaigns against the Keystone XL pipeline and fossil fuel investments inverted responsibility from consumer to supplier, injecting the climate narrative with the moral energy that Al Gore’s zigzagging charts lacked. By naming its enemy, the climate movement began to politicize. Capitalism, however, was an enemy against which a nascent movement would always lose. Amplifying the worst habit of the left—to chose righteous defeat over qualified victory—this story of massive structural confrontation positioned its protagonists for perpetual defeat. A monolithic view of power, conceiving of the narrative villain as a faceless system, precluded the possibility of winning before the battle began. The movement, of course, celebrated individual pipeline bans and successful divestment campaigns. But against an enemy as ubiquitous as capitalism, these victories proved just as incremental as cap-and-trade. In fighting a just but fruitless war, many activists resigned themselves to what organizer and theorist Jonathan Matthew Smucker calls “the story of the righteous few,” the catharsis of political combat without the risk. Whereas the Dakota Access Pipeline, for example, poses an existential threat for the Water Protectors, checking into Standing Rock on Facebook is signaling under the guise of solidarity. Reduced to an aesthetic, radicalism is decipherable only to other radicals, content with purity over popularity. The trappings of a leftist politics then become a fashion item to be flaunted—radical chic, or in Millennial parlance, radical basic. The tension between the climate movement’s performative impulses and its political ambitions were on display most vividly at the 2014 People’s Climate March, which succeeded in turning out enormous numbers for an issue that at the time rarely garnered enough press. By no means an unqualified success, the march at least deliberately framed its struggle as political—the people united against fossil fuels. But the nature of the big tent demonstration, some argued, privileged coalitional breadth over strategic depth. In response to the Climate Justice Alliance’s call for direct action against extractive corporations, organizers in New York City planned an arrestable protest in the heart of the Financial District the same week as the People’s Climate March. Billed as a radical action somewhere between supplement and alternative to the the march, #FloodWallStreet sought to bring the rising seas to the masters of capital towering above the Charging Bull. The event’s tagline—“stop capitalism, end the climate crisis”—announced its heady ambitions, while its proponents admitted to acting as the climate movement’s left flank. But with the arrest of a mere 3 percent of its participants, already vastly overshadowed by the hundreds of thousands in the streets the day before, #FloodWallStreet felt more like a trickle. Perhaps the biggest failing of the People’s Climate March and #FloodWallStreet was the pair’s reluctance to translate their momentum into political power through additional mobilizations during the 2016 presidential campaign. With their confrontational, politicized messaging, these climate protests had started to provide a face to the evils of fossil fuel capitalism that the national discourse would soon latch onto. The movement, however, balked. Even if he had not won the Republican nomination, Donald Trump still would have proved a terrifyingly real villain, a billionaire racist and famed climate denier straight out of a caricature on a #FloodWallStreet protest sign. Yet the institutions of the mainstream climate movement uneasily ignored him during the 2016 primaries. Bernie Sanders, meanwhile, took cues directly from movement leadership, bringing the platform of the People’s Climate March to rallies across the country. Yet only a small fraction of the organizations that made up the march’s coalition endorsed Sanders for president. And when Occupy activists returned to Zuccotti Park to phonebank for the democratic socialist, they were mic-checked by former comrades maintaining that social movements need to “exist outside of this political process.” The same electoral agnosticism that hamstrung Power Vote engulfed the climate movement again nearly a decade later. By failing to commit to the agonism of politics, which attempts to unite a diverse cross-section of the electorate against an identifiable enemy, the climate movement opted for marginality. Without a concerted effort to prevent a climate denier from reaching the upper echelons of government, the movement watched impotently as its victories of the past eight years were wiped away. Two things became impossible to ignore after election night 2016: that protest without politics was a recipe for endless defeat, and that the planet was massively, impressively, beyond-all-doubt fucked. Impoverished by a resistance to politics born of disillusionment with the failure of cap-and-trade, and suspicious of institutions like the Democratic Party for their capitalist sympathies, the climate movement had relegated itself to gadfly when it needed to play game changer. To actualize any transformation that could approach the scale of the climate crisis, the movement needed to learn to wage politics and win power inside government. Political struggle through elections and state institutions may not sound like a visionary prospect, but given its neglect by social movements through 2016, Sunrise, Alexandria Ocasio-Cortez, and their ilk stand a world to win. Gaining political power through the path most familiar to Americans—candidates in the two-party system campaigning to appeal to voters—provides a much larger megaphone for movement demands than most symbolic demonstrations. And while #FloodWallStreet activists struggled to get coverage of 100 arrests, Bernie Sanders consistently won headlines during the presidential campaign railing against fossil fuel executives’ culpability for the climate crisis. Electoral politics, more easily accessible to the average American, breaks a movement’s habit to talk only to itself. The advantage of conducting politics in this way is clear. The only institution conceivably capable of effecting change on a massive enough scale to rapidly transition off fossil fuels—the federal government—responds most directly to two political parties. The fastest path to taking over the government is taking over the Democratic Party. The decimation of establishment leadership in 2016 provided an opening for those alienated from the political system to contest for power within it. By embracing primaries, town halls, and get-out-the-vote canvassing (in other words, the tactics of conventional political struggle inside the two-party system), Sunrise organizers have brought the Green New Deal from the Democratic Party’s fringe to its mainstream. A total transformation of the economy, away from fossil capital and towards a more equitable distribution of resources, is the same putative goal of Power Shift, the People’s Climate March, Flood Wall Street, and grassroots campaigns across the country. Until now, that goal has always felt beyond the climate movement’s abilities. As both a campaign slogan and a policy platform, the Green New Deal captures the values and vision that resonate with Americans failed by decades of neoliberal consensus. It is a sweeping program with historic precedent to rein in society’s greedy elite and put everyday citizens to work to avert calamity. In the same way that Medicare for All signals more than a single-payer healthcare system, the Green New Deal signals more than a set of policies like a jobs guarantee and a renewable energy mandate. It signals ambitious change in an era when Americans long for it. But just as more moderate politicians attempt to dilute the meaning of Medicare for All, a key challenge facing the Green New Deal is its capaciousness. Already, politicians like New York Governor Andrew Cuomo have attempted to use the Green New Deal brand to drum up excitement for measly renewable targets. The newly politicized climate movement, therefore, must inoculate itself from wholesale appropriation. By offering a definition of the Green New Deal, as Representative Ocasio-Cortez and Senator Ed Markey have done in coordination with dozens of federal legislators and institutions across the left, Sunrise and the rest of the climate movement have determined what constitutes the full scope of the Green New Deal. Defining the Green New Deal is one challenge, but making it the law of the land is another. To do this the climate movement, and indeed the left in general, must fully shed its electoral agnosticism. The earliest any of the Green New Deal’s policies could make it into law is 2021. In that time, Democrats must retain their majority in the House, take control of the Senate, and win the presidency. The disproportionate power that rural states hold in Senate and presidential races means that the traditionally urban left must make in-roads fast in less populated states. Here, the Green New Deal, with its emphasis on agriculture reform and renewable electrification, will be an asset. Ending the minority party’s de facto veto power in the Senate filibuster will also be necessary. So will statehood for D.C. and Puerto Rico. The primaries over the next two years provide the climate movement with a window to push agenda-setting candidates to race each other to develop a plan to actualize the Green New Deal’s full scope. Sitting on the sidelines again would be nihilism. Though still far from our goal, the chasm between necessity and reality no longer seems so insurmountable. The Green New Deal has set a course for the country to combat climate change at scale. The journey will require more protest, more power, and especially more politics.

#### Accusations of reproducing colonialism are just negative binary flipping. That’s reductive and dooms emancipatory strategies.

Jini Kim Watson 18, NYU comparative literature professor, “Thinking the Postcolonial Contemporary,” in The Postcolonial Contemporary: Political Imaginaries for the Global Present, 13-16

The risk of this tendency toward binary thinking within postcolonial studies has several unfortunate consequences. Most obviously, it perversely mirrors imperial Europe's own civilizational worldview. Such an image also works to externalize internal divisions; the contradictions, unevenness, and plurality that characterize a given social formation are transposed into stable (territorial, ontological, epistemological) differences between one-dimensional entities. Once this simplified picture of the world is accepted as given and taken for granted, the work of critique is narrowed to protecting and policing those putative boundaries from outside interference, contamination, or complication. Taken to its logical conclusions, the very territorial and cultural reifications that should be historicized (worked through) are reproduced (acted out). Sadia Abbas's essay in this collection provides just such a "working through" of reified conceptions. Exploring the "constitutive porosity of Europe and West Asia," she unsettles the usual alignments of chronos, topos, and demos that have legitimated both imperialist and postcolonial nationalist projects of "unmixing people," and that underpin the long-standing geographical imagination of Europe's opposition to Africa and Asia. Her study of Greek and Urdu novelists Stratis Myrivilis and Qurratulain Hyder puts pressure on national narratives through attention to the literary technique of ekphrasis (the verbal description of aesthetic objects). In tracing a network of mixedness across West Asia and Europe-typically omitted by postcolonial studies' invocation of the stable concept of the "West"-Abbas provides new ways to think through not only past imperialist and nationalist projects, but the current entanglements of the European Union regarding refugee migration, the German-Turkish alliance, and the Greek debt crisis. Intellectual projects such as Abbas's thus move beyond a tendency within postcolonial criticism to become preoccupied with identifying shadows, residues, or traces of what appear to be "Western," universalist, humanist, or liberal concepts or assumptions, in order to dismiss (as compromised, illegitimate, power-laden) the object or phenomenon in question-treating such "discoveries" as punch lines rather than starting points, and substitutes for inquiry. In this way, social and epistemological critique, through which to try to think through and beyond the actual dilemmas posed by "the postcolonial contemporary," is displaced by always already settled-upon critique. This moral rejection of a one-dimensional Western modernity risks backing postcolonial thinking into a political and analytic corner in which critique can only be negative, while the project to imagine and create less alienated and more just social arrangements, and to reconcile plurality and humanity, are taken off the table.38 The idea that we should abandon or banish concepts that have mediated the West's racial violence and colonial domination implies a fictive belief in pure or innocent concepts whose provenance or novelty would not allow them to be instrumentalized. Conversely, it implies an absolutist belief that actually existing Western or bourgeois forms (of freedom, democracy, humanism, universal, etc.) exhaust the political potentialities of these concepts. Such viewpoints impoverish intellectual understanding and obstruct political possibilities. They also make it difficult to appreciate those (post) colonial actors, movements, thinkers, processes whose anticolonial/postcolonial engagement starts with the unavoidable facts of entanglement and refuses such categorical thinking. To be clear, we are not suggesting that the risk of civilizational thinking in recent postcolonial theory be counteracted by an uncritical affirmation of abstract humanism and post-Enlightenment universality. On the contrary, we need to transcend the sterile debate between one-sided conceptions of universalism and particularism. Rather than embrace one or the other as the privileged standpoint of critique, the task is to displace the opposition itself as an imperial artifact that is empirically unfounded, analytically limited, and politically self-undermining. Important postcolonial scholars have recently directed our attention in just such a direction. We might think here of Gayatri Chakravorty Spivak's recent attention to planetarity, Paul Gilroy on postcolonia1 conviviality and the politics of cosmopolitan dis-identification, Robert Young on toleration and convivencia, and Achille Mbembe on universal community, the in-common, and the need to "build a world we share."39 It is important to note that these thinkers arrive at such positions through a rigorous critique of racialization and an understanding of humanity as profoundly rooted and differentiated.40 We believe that one way to move beyond this impasse would be to link the indispensable project of provincializing Europe with the equally important task of deprovincializing the Global South. Scholars have rightly demonstrated that many of the purportedly neutral and universal frameworks through which the human sciences seek to know the world emerged out of particular European historical contexts and cannot adequately grasp many dimensions of non-European life worlds and experience. Such work has usefully revealed the covert particularism that so often masquerades as universal. But such interventions should be paired with work that also questions the status of the universal or the human as European property and challenges the idea that actually existing forms of abstract humanism and post-Enlightenment universalism are the only possible forms they can assume. In her delineation of B. R. Ambedkar's complex anticaste politics included here, for example, Anupama Rao not only corrects the elision of anticaste thought in much South Asian postcolonial theory but also situates Dalit politics within the framework of global responses to dehumanization. Caste is thus read alongside, and through, U.S. posteman-cipation critiques of slavery and Marxist theorizations of labor. Reading caste for its po-tential commensurability with these concepts-for its very modernity rather than supposed timelessness-Rao posits a radical deprovincialization of caste against and with which notions of race and class might also be productively reread. The wager is to think the universal precisely from the embodied, negated experience of the Dalit. There are thus several paths along which such deprovincializing work may proceed. We could, for example, examine how many supposedly "Western" categories are in fact quintessentially modern categories that emerged through capitalist and imperial encounters. Insofar as they were implicitly and explicitly coproduced by colonized and non-Western peoples, the latter are their rightful heirs. A deprovincializing critique would demonstrate what should be self-evident, yet seems to require repeating, namely that colonial situations in non-European societies also produced global thinkers of world-historical problems who were concerned not only with their own conditions and experiences but with (such supposedly Western) concepts as freedom, autonomy, democracy, humanity, equality, and justice on world-wide scales. Critiques such as Wilder's recent study of Cesaire's and Senghor's visions for nonnational forms of decolonization-and his examination of Du Bois's radical humanism in this volume-show that such thinkers are heirs to intellectual traditions that reflect on the good, the true, and the beautiful, on what it means to be truly human and live a full human life.41 Moreover, the significance of these reflections extends beyond the specific context, the provincial forms of life, from which they emerged and to which they certainly refer, but not exclusively. Such inquiries would begin effectively to globalize intellectual history and critical theory; not only to expand the canon or recognize non-European intellectual traditions, but to do so in ways that call into question the deeply entrenched territorialist and culturalist assumptions (concerning place, ethnicity, consciousness, and political subjectivity) that continue to overdetermine these fields of reflection. Such an approach would challenge methodologies that depend on unreflective notions of origin, tradition, and context. On a different front, deprovincializing should also lead us to examine how processes, contradictions, and struggles in the Global South (concerning, for example, privatization, austerity, shantytowns, resource struggles, authoritarian statism) may be viewed as harbingers of worldwide shifts, crucibles for new forms of worldwide social conflict, and situations from which to theorize the contemporary global situation.42 We can analyze how the rapid changes unfolding in places like China, Singapore, and Mumbai are creating new global standards and serving as aspirational models for peoples around the world (including former imperial centers),43 as well as new avenues for thinking political and aesthetic modernity (see Hitchcock in this volume). This work would also entail attending to new practices of imperialism or internationalism within the Global South, to new forms of South-South relations, whether as sources of inequality or solidarity. The critique of Western power, Eurocentric epistemology, and persistent imperial assumptions (about civilization, humanity, legality, etc.) remains a pressing contemporary task. But at a moment when global forms of interpenetration and interdependence have never been more determining, when "the West" is rapidly losing its control over the world economy and geopolitics, and when the need to think about democracy, solidarity, and justice on planetary scales has never been more urgent, such a critique cannot be based on reified territorial, cultural, or identarian assumptions. In sum, the work of deprovincializing the Global South requires us to reject mono-lithic models and one-dimensional analyses of epochs, regions, and civilizations. It means, for example, disaggregating "modern," "Western," and "liberal" from one another. It means attending as much to differences within, and the multiplicities that characterize, a given time, place, religion, or culture as to differences between them. It means following the lead of colonized and non-Western historical actors who regularly sought within existing social formations resources and allies through which to engage in anti-imperial struggles, craft new norms, enter into new configurations. It means understanding “tradition” in expansive political rather than narrow cultural terms, and expanding our conceptual matrices of the political. In other words, deprovincializing work entails dialectical thinking, immanent critique and identify objects of analysis as non-self-identical. Such an approach should lead us to reconsider the supposes distance between Marxist and postcolonial critiques.

#### Technical solutions key to climate justice–declarative moralism can’t deliver energy equality

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“On Justice Movements: Why they Fail the Environment and the Poor,” http://thebreakthrough.org/index.php/journal/past-issues/issue-3/on-justice-movements

But beneath Naidoo’s aspirational vision lies a diagnosis of what ails the poor and the powerless that is a good deal more problematic. “You have loaded our atmosphere with a carbon debt. Do not pass the bill to the continent of Africa,” he wrote in an open letter to world leaders. The theory of climate justice tells us that the gap between rich and poor and the looming threat of catastrophic climate change are not simply unfortunate circumstances that demand our attention and action, but rather the result of active efforts on the part of rich nations, wealthy elites, and powerful corporations to profit on the backs of the global poor and the environment. In this telling, the failure to deploy plentiful renewable energy in the developing world is the fault of the developed world. There is, of course, no shortage of injustices that have been visited upon the global poor for which the wealthy developed world bears some responsibility. But denying impoverished people their rightful access to clean renewable energy is not among them. Many parts of the developing World are indeed blessed with abundant wind and sunlight. But solar and wind energy are still intermittent, difficult to scale, and substantially more costly than fossil energy, which is why they require significant subsidies. Demands for climate justice too often ignore basic practicalities of energy, poverty, and climate change, directing our gaze away from the issues that really matter to the future prospects of both the global poor and the planet and toward issues that don’t. Huge swaths of the world have been developing over the last three decades at an unprecedented pace and scale. That remarkable transformation has come not from the forced redistribution of global Wealth or renewable energy but instead from the rapid growth of the global economy fueled by cheap fossil energy. China, India, and Brazil have become the manufacturers, farmers, and phone centers to the world, lifting hundreds of millions of people out of poverty in the process. Contemporary demands for climate justice have been, at best, indifferent to these rather remarkable developments and, at worst, openly hostile. Some activists reject development and modernization altogether, lauding poor indigenous communities for living a simpler, more virtuous life in a closer relationship with nature. Others almost unavoidably find themselves reinventing archaic international Socialist tropes in the name of sustainability. Neither posture offers much succor to the global poor. While our inclination to slap the label “justice” on any problem that affects rich and poor differently offers tempting rhetorical possibilities, it is not clear that transforming issues of equity (defined as a desire to lessen economic and other disparities between rich and poor) into issues of justice (understood as a demand for retribution and reparations) does much for constituencies in desperate need of economic development and affordable energy. The technological, social, and institutional innovations that will be necessary to expand access to energy and modern living standards while mitigating global carbon emissions will require more development, more engagement with world markets for the global poor, and greater cooperation between governments and corporations. That is the struggle that really matters for the poor, and while climate justice serves a range of discursive purposes for the international Left, it is not always clear which side of that struggle the movement is actually on. 1. The inspiration for our present-day proliferation of justice movements took root in the 1970s, a better time for US environmentalists but a difficult one for civil rights activists. In the decade after the passage of the federal civil rights and voting rights acts, civil rights leaders turned to the far more complicated challenge of economic justice. Creating jobs and businesses and expanding access to higher education required costly and contentious policies, from school busing to affirmative action, that alienated some of those who had supported an end to legalized segregation. Where the moral clarity of the civil lights struggle had galvanized the nation, the struggle for economic justice divided it. Meanwhile, fresh-faced environmentalists were winning in Washington and both national political parties wanted a piece of the action. But largely low»income communities of color were conspicuously absent. The Congressional Black Caucus provided little environmental policy leadership; indeed, some black leaders were decidedly underwhelmed by the new Wave of concern for snail darters and spotted owls. Unemployed urban youth seemed the endangered species, worth worrying about, and the newly ascendant environmental movement appeared to divert the nation’s attention away from their plight. The environmental justice movement changed all of that, providing a framework through which many environmentalists and civil rights advocates could common cause. In 1982, protesters in Warren County, North Carolina, a mostly African American community, battled a proposed landñll for polychlorinated biphenyl-contaminated soil, a landmark moment for the nascent movement. Increasingly, not-in-my-backyard protesters spread the word about pollution in racial terms. Disparate exposure to toxins and associated health impacts did not just happen but were allowed to happen. They were even deliberately promoted by a system that favored wealthy, white communities. A racial rhetoric evolved: “environmental equity” morphed into the more provocative “environmental racism” and eventually “environmental justice,” which sought to fuse classand race-based complaints. Research emerged to support the thesis and gained credibility among environmental journalists, who were as conscious of the lack of diversity in the newsroom as environmental activists were of it in nonprofit organizations. Toxic Wastes and Race in the United States, a milestone 1987 study, suggested that there was proliferating hazardous-waste-based risk in minority areas. Its release became an immediate media sensation, propelling its leading proponent, Benjamin Chavis, to the executive director’s job at the National Association for the Advancement of Colored People. Subsequent studies cast doubt on claims that polluters were deliberately targeting minority communities and that poor communities were disproportionately exposed to toxic waste. But by then the die had been cast. Toxic Wastes and Race fed a politically useful narrative and seemed intuitively on target. The concept of environmental justice was potent, since it implied a continuation of discrimination in a new form. And the political establishment - the Environmental Protection Agency, under George H. W. Bush appointee William Reilly and, more aggressively, under Bill Clinton appointee Carol Browner - responded. Here, after all, was an issue that fused race and the environment, core concerns of the Democratic Party. The Clinton administration rechristened the Bush EPA’s Office of Environmental Equity as the of Environmental Justice, to which citizens could direct their inquiries. Clinton signed Executive Order 12898, encouraging agencies of government to accommodate this new brand of environmental concern. Environmental justice proved to be an important innovation for both the civil rights and environmental movements. It simultaneously injected a somewhat shopworn civil rights advocacy with new vitality, helped advance a national conversation about racial inequality, and brought new voices to environmental policy. Traditional environmental groups like the Sierra Club now had a way to reach people generally unexcited by the “hiking and biking” brand of environmentalism. Poorly funded local organizations came and went in response to NIMBY battles. But a robust movement endured, sustained by a combination of health fears, political mobilizing, government endorsement, energizing victories against potentially hazardous sites, and a supportive national network of sympathetic professors, students, advocacy journalists, and funders. Environmental justice also had real, if modest, impacts on environmental policy. Advocacy efforts raised the priority for research and assessment of lead, urban air pollutants, and other toxic substances. And by effectively targeting industrial and waste-permit processes, activists made industrial siting for companies like Shintech, the largest domestic producer of polyvinyl chloride, more treacherous. But other aspects of environmental justice advocacy were more problematic and would illustrate the ways in which fill-in-the-blank justice advocacy of all sorts has too often failed the disadvantaged constituencies it has attempted to serve. Environmental justice activism tended to mobilize communities to address perceived local risks that often did not track very well with the most serious risks that residents actually faced. While eliminating low-level exposures to industrial chemicals might make for good organizing, it doesn’t represent a particularly defensible public health prescription. People continue to speak of the region between New Orleans and Baton Rouge, for instance, as “Cancer Alley,” even though no spike in environmentally induced cancer has been proven. Meanwhile, long before the summer of 2oo5, one could see that a direct hurricane strike was the most serious collective hazard faced by residents of New Orleans’ Lower Ninth Ward and other poor neighborhoods. But environmental justice advocacy in Louisiana, dependent on convenient and visible targets of outrage, could never prioritize the more abstract hurricane risk. Hurricane Katrina represents an admittedly spectacular misjudgment of the risks faced by low-income communities. But it is also just the tip of the iceberg. A long list of more prosaic risks - heart disease, smoking, poor diet, lack of exercise, and crime, to name just a few - plague low-income communities and dwarf the concerns that have generally mobilized the environmental justice movement. Moreover, the environmental policies that have significantly improved health outcomes in minority and low-income communities have been universal ones, not those that specifically targeted disparities in exposures based upon race or class. Well-documented successes in battling particulates, airborne lead, and dirty water supplies have naturally benefited people concentrated in urban or industrial areas and heavily reliant on public resources. And yet environmental justice casts mainstream environmentalism not as the solution but as part of the problem. Environmental justice scholars suggest that both economic growth and improvements in environmental quality have come at the expense of community-of­color “sacrifice zones.” Still, environmental justice activists were, from the start, on to something central and important: cheap land is a magnet for low-income housing and industry, not for affluent residents. Until recently, though, the environmental justice movement has had little to say about the main causes of poverty and inequality that afflict poor communities: the dearth of good jobs, schools, and health care. By directing its ire at environmental threats that fit neatly into its seductive trinity of risk, race, and place, rather than those that are most pervasive and destructive, environmental justice has never had much success in improving quality of life in poor communities. Consider that after some two years of struggle, the town of Convent, Louisiana, finally fended off Shintech’s proposed polyvinyl chloride plant when the company withdrew in September 1998. But while Shintech’s corporate masters have taken their operation elsewhere, Convent remains desperately poor, its residents plagued by illnesses that rarely affect the affluent. 2. Environmental justice set a template that other postmodern justice movements would follow: take an issue previously defined as having broad or universal impacts upon everyone - environmental pollution, climate change, reproductive rights, obesity - and redefine it in racial terms. Justice, in this context, takes on a very specific meaning. Disparities between rich and poor are the result of active conspiracies on the part of the rich, powerful, and corporate. Complicated social phenomena - teen pregnancy and childhood obesity, even famines and civil wars - can be reduced to a single overriding cause, the exploitation of the poor and nonwhite by the wealthy and white. Climate justice took this strategy to new heights, offering a framework from which virtually any affliction associated with global poverty might be hung. The scope of the attributions that climate justice activists make are truly sweeping. The Anatomy of a Silent Crisis, an influential 2009 report produced by the Global Humanitarian Forum, a now-defunct nonprofit group whose president was former United Nations Secretary-General Kofi Annan, asserts that “every year climate change leaves over 300,000 people dead, 325 million people seriously affected, and economic losses of $125 billion.” The report Went on to declare that it “is a grave global justice concern that those who suffer most from climate change have done the least to cause it.” That same year, in a letter to Sweden’s prime minister on the eve of the United Nations climate talks in Copenhagen, the late Nobel Peace Prize Winner Wangari Maathai, a champion of women’s lights and tree planting in Kenya, wrote: “My continent is slipping rapidly into a climate change-induced chaos. But this is a chaos not of Africa’s making. It is one due to the rich world’s historical emissions and current high-energy consumption levels. Not only are industrialized countries responsible for global warming given their huge historical and present emissions. But as well, they owe their current prosperity to decades of overuse of our common atmospheric space.” The claim made by Annan, Maathai, and other activists is not that global warming will result in misery for many millions of poor people over the coming century, an assertion that climate science suggests is at the very least plausible, but that it is resulting in misery for many millions today, one that simply can’t be substantiated. Whatever global warming’s present impacts may be in Africa - and they are exceedingly difficult to measure - they are arguably the least of the continent’s problems. Sub-Saharan Africa has been afflicted by tribal division, colonialism, bad governance, and infectious diseases for centuries. Indeed, it is the legacy of those many afflictions, much more than the relative severity of the weather, that accounts for the vast majority of the carnage that results from extreme Weather events. Rich nations and communities handle extreme natural disasters much better than poor countries do even modest disasters. The problems hanging over the climate justice agenda extend well beyond the difficulty of pinning a Kenyan drought to my grandfather’s Western emissions. Coal-addicted China, not the United States or Europe, now leads the world in carbon emissions, with some 7.7 billion tons produced in 2009, placing it above the United States and Canada combined. Eric A. Posner and David Weisbach of the University of Chicago Law School point out in their 2010 book, Climate Change Justice, that the W0rld’s biggest carbon offenders after China and the United States are Indonesia, Brazil, Russia, and India. “Without deep Cuts by these countries from current levels,” they write, is impossible to achieve reasonable stabilization goals.” Climate justice activists regularly argue that the West should compensate the Rest for past damages. But what is to be done about an emerging future where the lion’s share of damages to vulnerable populations in the developing World is due to emissions from the developing world? If that world has not yet arrived, it will almost certainly be here soon.