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Global Inequality and Climate Change

J. TIMMONS ROBERTS
Department of Sociology/Program in Latin American Studies
Tulane University
New Orleans, Louisiana, USA

Global warming is all about inequality, both in who will suffer most its effects and in who created the problem in the first place. This article describes the inequality empirically in broad strokes and then describes how it has led to the current deadlock in dealing with the problem of global climate change. Regarding bargaining positions in the Kyoto round of negotiations, two factions among rich nations and at least five distinct bargaining positions among poor nations are described and explained. The factional divisions are attributable to the differential influence of “polluting elites” across nations. The article concludes that the only way out of the conundrum of inequity and warming is by both addressing inequality and delinking carbon and development.

Keywords climate change, environment, greenhouse, inequality, stratification, world-systems theory

Global warming is all about inequality, both in who will suffer most its effects, and in who created the problem in the first place. Certainly global warming threatens everyone on the planet, but some places and some people in those places will suffer much sooner and much more than others. For example, many poor nations, especially island nations and those with large populations in low-lying areas, are facing ecological disasters “of biblical proportions” if the sea level rises as much as is predicted. The 1995 Intergovernmental Panel on Climate Change (IPCC) report, bringing together over 2000 scientists from around the world, predicted that Africa will face devastating droughts, which will destabilize governments and bring strife and suffering to the region; there will be flooding in Bangladesh, which will kill millions. There has been no serious refutation of these predictions, and a series of other impacts are already being felt, such as the wrath of hurricanes, droughts, heat waves, and floods (IPCC 1995; Gelbspan 1997; UNEP/WMO 1999). These poor nations are least able to handle the massive dislocations that come with “natural” disasters, which can set their development back decades. Within the poor nations, poor classes often never fully recover from devastating disasters brought on by the increasing climate instability.

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Address correspondence to J. Timmons Roberts, Department of Sociology/Program in Latin American Studies, Tulane University, New Orleans, LA 70118, USA.
E-mail: timmons@mailhost.tcs.tulane.edu

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While effects of and the ability to handle climate change are unequally distributed, responsibility for the problem is even more unequally distributed. Poor nations remain far behind us in terms of emissions per person. For example the average U.S. citizen dumps as much greenhouse gas into the atmosphere as 8 Chinese and as much as 20 citizens of India (WRI 1998). Overall, the richest 20% of the world’s population is responsible for over 60% of its current emissions of greenhouse gases. That figure surpasses 80% if our past contributions to the problem are considered. They probably should be considered, since carbon dioxide, the main contributor to the greenhouse effect, remains in the atmosphere for 120 years. This is simple, true injustice: The innocent are suffering the effects of something (our consumption) from which they drew little or no benefit. As members of the small island states whose cultures are likely to be decimated have pointed out, to understand the links and yet willfully allow the destruction of cultures and people seems plainly immoral.

Some will point out that there is another very different side to this story. China and India, with massive populations and rapid industrialization, will in the next twenty years surpass the wealthy countries in total emissions of greenhouse gases to the atmosphere (GCC 1998). It is true that environmentally speaking, one cannot handle this problem of global warming without addressing the boom of emissions in the developing countries. This point has been seized upon by the United States—headquartered oil and coal industries, who have mobilized think tanks, journalists, scientists, and senators to block any progress on the Kyoto treaty until the poor nations also agree to limits on their carbon emissions (McCright and Dunlap 1999). However, to ask these nations to stop development at a level we would never consider returning to seems hypocritical (Shue 1992). What’s more, by their importance in the problem and their sheer numbers in negotiating efforts, the poor nations hold a veto power over efforts to enact a global climate treaty.

In this article I first describe the inequality empirically in broad strokes and then describe how it has led to the current deadlock in dealing with the problem of global climate change. Regarding bargaining positions in the Kyoto round of negotiations, I describe two factions among rich nations and at least five distinct bargaining positions among poor nations. My approach is utilizing some insights from the school of political economic thought labeled world-systems theory (see Shannon 1996 for a review) to attempt to understand the broad patterns of inequality in carbon emissions and differences between nations in their positions on a climate treaty. World-systems theory points us to pay close attention to the “polluting elites” who direct leading sectors of their economies (especially exports) and exercise disproportionate control over the national and foreign policy of nations on the environment (Roberts 1996a; Roberts 1996b; Roberts and Grimes 1999). The perspective, I argue, provides fresh insights into policy directions to address climate change. By way of conclusion, I argue here that the only way out of the conundrum of inequity and warming is by both addressing inequality and delinking carbon and development. Equity and ecology must be dealt with together: in this case, address inequality and decarbonize.

Inequality of Economy and Emissions

Of the world’s 6 billion people, almost 5 billion live in countries where the average income is less than $3 a day (World Bank 1997). At the same time, on average, the people in the high-income countries get to live on 23 times that much, and the gap between the two groups is widening (World Bank 1995). About one out of four people in the world lives in absolute poverty, defined as “too poor to afford an adequate diet
Malnutrition is said to stunt the growth and development of 40% of all 2-year-olds in poorer countries (UNRISD 1997; CARE 1996).

There are two pollutions, of course, that of wealth and that of poverty (Redclift and Sage 1998). In carbon terms, the worst is unquestionably the pollution of wealth. In the poorer countries, the greater environmental problems are simply survival: having enough to eat, a safe place to sleep, a way to take care of children. So there is great inequality of wealth and greenhouse gas emissions between nations and also within them. We lack much data on intracountry variation in carbon emissions (especially in the poor nations), but it can be said with confidence that the world’s richest people cause emissions thousands of times that of the world’s poorest.¹

Still, the “pollution of poverty” must be considered. Many of the world’s poor continue to gather firewood or animal waste for fuel. Both create important environmental damage and can contribute to land-use change, biodiversity loss, and climate change. But both are using essentially “renewable” energy sources, and the main threats to our atmosphere come from adding new carbon to the biosphere by burning fossil fuels (Kasting 1998). Traveling by foot, bicycle, and bus, and cooking local foods in unheated, un-air-conditioned tiny homes built of simple, local materials, the fossil fuel use by the world’s poor on a per capita basis is almost negligible. Twenty percent of the world’s population is responsible for 63% of the emissions, while the bottom 20% of the world’s people are only releasing 3% (Population Action International 1998). Per capita, the analysis is striking: The high-income countries (using World Bank categories) are leveling off around 2.5 metric tons of annual carbon emissions per person, while the middle income nations are around 0.6 mT and the poorest around 0.02 mT (Roberts and Grimes 1997; Dietz and Rosa 1997).

It is a basic rule of civil justice, Superfund, and kindergarten ethics that those who create a mess should be responsible for cleaning up their share of the mess. Since carbon dioxide burned now stays in the atmosphere for over 100 years, shouldn’t accounting for all the damage the rich nations have done in the past be considered (Neumeyer 2000)? This is a highly contentious issue indeed, but one that we have to consider if we are to address inequality and climate change. When emissions since 1950 are summed,² not surprisingly, the gap between rich and poor nations is much higher and is not narrowing or going away anytime soon. The summed emissions from the high-income nations amount to 900 trillion tons of carbon, from the 28% of the world who live in middle income nations only 500 trillion tons, and the poorest majority of the world have dumped only 200 trillion tons.

Roots of a Divisive Debate

A major sticking point in the Kyoto round is precisely this: how to calculate who is polluting how much, and how much they should be required to reduce their emissions. One alternative that has been proposed is to look at total carbon emissions per country and seek a reasonable international level per capita. Another is grandfathering emissions—that is, in the name of political expediency, national reductions are based on a baseline of 1990 levels. There are many other ways to calculate national targets, but this “grandfathering” approach is the one considered most feasible for negotiations (see, e.g., Torvanger and Godal 1999). This is the strategy that was undertaken at Kyoto, with different voluntary targets for 2010 or 2012 agreed to by nations, varying from 8% for European Union nations to smaller reductions and even limited increases for some nations. While there is agreement that rich nations must take the lead, the world does not in this case break down neatly along the lines of core, semiperiphery, and
periphery (rich, middle, and poor). We need to look further into the energy intensity of nations, and the nature of their “polluting elites,” to understand their bargaining positions. Space is limited, so this will be only a suggestive first crack at this.

**Divisions in the Core**

There are some surprising but well-known divisions within the wealthy core nations in how much they think they need to take the lead on reductions of carbon emissions. Leading the way on addressing the climate change problem aggressively have been the European Union (EU) nations, some of whom wanted 20% reductions and binding limits on carbon emissions at Kyoto. Densely populated and well aware of the environmental limits to economic growth, Europe’s environmental movement is the strongest in the world, with viable political parties in many nations and even a few which have gained real political power.

After repeated foot-dragging by the United States and other nations, much lower, self-chosen emissions limits between 5 and 8% below 1990 levels were settled upon at Kyoto in 1997. Still, several of these nations are showing that they are willing to take unilateral steps to reduce their carbon emissions. This EU coalition appears to be facing a crucial test now, as recent data on how nations are doing meeting the Kyoto targets have pitted Spain against northern European nations (who are most enthusiastic about carbon emissions limitations). Britain is on its way toward reducing emissions by 20%, with the hopes of selling “permits” to other nations which are having more trouble reaching their goals.

On the other side are the foot-draggers, led by Japan, the United States, Switzerland, Canada, Australia, Norway, and New Zealand (called the JUSCANNZ nations). Iceland, Russia, and several others take a similar position but have not been asked for deep binding limits. After succeeding in getting less ambitious targets for emissions reductions at Kyoto, the group moved on to its next negotiating goals. At the top of the list was their desire to “buy” an unlimited amount of “permits,” that is, purchase whatever reductions they fail to meet by the deadlines in the treaty (around 2012; Sissell 2000). Such purchases are called “flexibility mechanisms,” and they can be in the form of buying reductions that were made in other rich nations (called “Joint Implementation”) or in poorer nations (called the “Clean Development Mechanism”). Some projections on how much money could be flowing between nations if trading takes off (and it already has begun) suggest that trading could soon overshadow foreign aid and military aid. A fractious issue is that the EU has pushed for limits on trading permits, based on the concern that with unlimited trading there will be no real change in “business-as-usual” in the JUSCANNZ nations while the Europeans make real sacrifices and risk losing their economic competitiveness. The stage for the standoff is being set, since rather than going to 7% below 1990 levels, the United States is heading in the other direction, with 1997 figures showing an 11.1% increase in carbon dioxide emissions (U.S. EPA 1999).

A critical moment in the struggle over inequality and climate change came in the summer of 1997 before the Kyoto meeting in December. In the U.S. Senate, the Byrd–Hagel resolution passed 95–0 on 25 July 1997, making it impossible for the administration to sign any treaty that did not include the poor countries. Senator Robert C. Byrd declared on the Senate floor that “I do not think the Senate should support a treaty that requires only . . . developed countries to endure the economic costs of reducing emissions, while developing countries are free to pollute the atmosphere, and, in so doing, siphon off American industries” (Dewar 1997). Representative
Henry Bonilla stated that Kyoto “is anti-American because it imposes strict, costly penalties on Americans while allowing many Third World countries to pollute our environment at will” (Congressional Record 23 July 1998). At the other end of the limited political spectrum on Capitol Hill, Representative John Dingell said in 1998 that “India, a mass emitter of CO-2, is not going to be bound. Our friends in China have told me that they will never be bound. So that leaves Uncle Sam, the United States, which proposes to be bound by a treaty which is going to cause enormous economic hardship” (Congressional Record 23 July 1998). To understand the position of the representatives, one need look no further than the hard-lobbied positions of the industries that support them (see, e.g., the American Chemistry Council web site). Byrd is a Democrat from the coal-dependent extractive periphery, West Virginia; Bonilla is a Republican from oil-dominated Texas; Dingell represents the auto-industry-dependent state of Michigan. World-system theory suggests that these positions are balm efforts by privileged economic groups at the top of the world inequality system defending their position there, while making outlandishly ironic claims about and impossible demands on those at the bottom of the pyramid. The “polluting elites” are flexing their political muscle. However, there are even more factions outside the core of the world system, tied largely to the nature of their own economic and political elites.

Divisions Outside the Core

Redclift and Sage (1998) argued that climate change still is not a top-priority issue for much of the world’s population, because there are more pressing problems. This is true for many nations, but there is not one Third World. Though the poorer nations have often negotiated together, as the “G-77 and China” (which together actually represent 134 nations), there are at least five distinct positions of these nations on the issue of climate change treaties (Dunn 1998).

First, when it comes to obstructing binding limits on emissions of greenhouse gases, not surprisingly the hardest line has been taken by Organization of Petroleum Exporting Countries (OPEC). It has adopted a position very similar to that of the U.S. oil and coal lobbying arm, the “Global Climate Coalition,” and other related think tanks, saying “go slow,” “do more research,” “don’t hurt the economy,” etc. (McCright and Dunlap 1999). At the COP-4 round of negotiations on the Framework Convention on Climate Change (FCCC) in Buenos Aires in late 1998, OPEC Secretary General Rilwanu Lukman gave a defining speech and released a press statement. It said that “as the group of developing countries that is most dependent upon fossil fuel sales, [OPEC] is concerned that the legitimate right to economic development, shared by all developing countries, is under threat from the mitigation measures that may come under discussion” (OPEC 1999). More concretely, “OPEC’s research, for example, suggests that OPEC Member Countries could collectively suffer losses in revenue flows of the order of US$20 billion each year as a result of the proposed mitigation measures being implemented.” He continued: “Compensation is a necessary concomitant of a balanced agreement.” Finally, and bluntly, “how can fossil fuel producers be expected to give their wholehearted blessing to measures that could wreak havoc with their economies?” (OPEC 1998). On the trading of emissions permits, the OPEC statement in 1998 at Buenos Aires asked, “Could these mechanisms result in the surreptitious inclusion of additional commitments for developing countries?” Further, “The picking of ‘low-hanging fruit’ [trading for easy, cheap carbon reductions] in developing countries will be largely to the benefit of a far too narrow selection of countries elsewhere in the world.”
At the other extreme are the AOSIS nations (Alliance of Small Island States), like Nauru, Marshall Islands, and Fiji. These nations have begun to loudly argue that they are “among the most vulnerable to impacts of climate and sea-level changes . . . the inhabitable land tends to be on the coastal fringe . . . climate change could mean changes in storm frequencies and intensity and lead to increased risk of flooding. It could upset sediment balances on the islands, leading to beach erosion and displacement of settlements and infrastructure” (AOSIS 1999). These nations could all suffer “a terrifying, rising flood of biblical proportions . . . the willful destruction of entire countries and cultures,” as described by Kinza Clodumar, president of Nauru at Kyoto in 1997. They call for immediate, drastic action to curb global warming. Their argument is that “(a) Pacific Island Countries make a small or negligible contribution to GHG; (b) They are among the countries which are most impacted; and (c) Knowledge of relevant parameters is very low.” Currently 84 countries have signed the Kyoto protocol, but only 9 have ratified it and therefore agreed formally to its binding limits. Almost all of these are the small island states (Depledge 1999).

A third group is India and China, both with huge populations and both industrializing quickly. They call for equity based on carbon emissions per capita, by which both are light-years behind the industrial nations. As mentioned above, one U.S. citizen releases 8 times as much carbon as a Chinese citizen, and 20 times an average Indian. By these measures, both nations could grow and pollute more for a long, long time without reaching a globally standard per capita amount of carbon emissions. China has said that it will not commit to reduce any emissions before 2020. China’s lead negotiator said, “In the developed world only two people ride in a car, and yet you want us to give up riding on a bus.” India’s Centre for Science and Environment pointed out that even when the poor nations emit as much as the wealthy ones, 20% of the world’s population will still be responsible for 50% of its carbon (Dunn 1998).

There is also a silent majority of nations in the developing world. Among the 134 nations in the G-77, many are still unheard from on climate. Guyana’s delegate, speaking at the 1 June 1999 meeting in Bonn as representative of the group, made clear that the G-77 would “play ball” on climate change only if the redistribution of resources was immediately forthcoming. “Transfer and access to technology, including information technology and enhancement of endogenous technologies, and the provision of financial resources, in particular for the full participation of developing countries in the implementation of these decisions, are necessary” (Drayton 1999). Some argue that this group of 134 has gained “the upper hand” and a series of concessions since Kyoto because most developing countries face no domestic environmental movements pushing them to act on the issue (Depledge 1999). Their states are therefore able to play the negotiations for all the concessions they can get (see Miller 1995; Young et al. 1996).

Some countries have taken a “middle ground” approach, such as the Philippines and especially Argentina, attempting to do some brokering between north and south. Under strong pressure from the United States, Argentina, at the COP-4 round in Buenos Aires in December 1998, proposed accepting emissions targets but only if they applied to expected growth, rather than current levels. Kazakhstan also expressed an intention to accept voluntary targets. Korea’s role has been fairly protreaty, while Brazil’s position has been tougher, not far from those of India and China. Under pressure from President Clinton, Brazil’s Chancellor Luiz Felipe Lampreia said flatly, “We cannot accept limitations that interfere with our economic development” (Rossi 1997; A-15). The Earth Times called the U.S. attempt to find some allies among the poor nations a “classic tactic of British colonialism—divide and rule” (Gupte 1998). G-77
and China responded with revulsion to the proposal of any binding limits on noncore nations, which “poisoned the atmosphere of negotiations throughout the Conference” (La Rovere 1999). The Clean Development Mechanism remains “extremely controversial,” with some 142 issues needing to be worked out in the next 2 years (Depledge 1999). Poorer nations who are willing to talk about accepting some binding limits on carbon emissions have used the CDM to begin a new round of economic redistribution, since foreign aid has dropped to post World War II lows.

Finally, and quite importantly, there are the “emissions entrepreneurs,” states where projects are already underway to gain some of the potential investments from trading of carbon permits or technology transfer. These countries include most of Central America, Ecuador, and are being led by Costa Rica. That nation has already established an emissions-trading program, certifying reforestation and preservation projects. These nations can see clearly what many others do not: how they can capture a large share of this new redistribution if they act quickly.

**Only One Way Out: Decarbonize Development**

Because of the way the Kyoto treaty is structured, without the United States or Russia the treaty will not go into effect. In effect, polluting elites in the United States have successfully achieved a stranglehold over any progress. The lack of progress in the U.S. in reducing carbon emissions increases the likelihood that the “greenhouse coalition” lobby and the Senate will resist even meeting the original Kyoto agreement. And given the U.S. lack of progress meeting its own target for the end of the next decade, developing nations are provided a ready excuse for not making cuts. As Brazil’s leading newspaper put it, “Numbers like these [the U.S. emissions] reinforce the disposition of the Brazilian government to reject the idea of taking on additional costs to do its part in reducing the greenhouse effect” (Rossi 1997).

Now some authors are calling for abandoning the Kyoto process entirely and moving on to voluntary initiatives or starting again with only those nations who really want to do something about the problem. They hope to use the politics and psychology of shame and marginalization, to move eventually to a second-generation protocol (e.g., Flavin 1998).

Dunn (1998) and others make a lot of the idea that to resolve the deadlock over inequality and climate change, that development needs to be “decarbonized,” that is, delinked from fossil fuel consumption. The “Clean Development Mechanism” (CDM), which is still emerging from the Kyoto round of talks, is one way that could take place.

The objective of the CDM is to help the South further its development goals in a less-carbon intensive fashion, while offering the North some flexibility in meeting its Kyoto commitments. As envisioned, the fund would channel Northern investment, technologies, and practices into developing country projects such as solar installations, wind farms, efficient industry boilers, and tree-planting programs. . . . A share of the proceeds from the mechanism will be used to help particularly vulnerable developing countries, such as island states and Bangladesh, cover the costs of climate disruptions. (Dunn 1998, 25)

Much more work needs to be done for political economy or sociology more broadly to meet that potential, and world-system theory may be one way to begin (see, e.g., Roberts and Grimes 1999).
This brings the discussion back to the original point about how issues of equity will have to be dealt with at the same time as the environment (Shue 1992). Richard Benedick, chief U.S. negotiator on the Montreal Protocol, said that “The North’s interests in maintaining a healthy planet can only be achieved through aggressive efforts to support national economic advancement in the South” (quoted in Dunn 1998). The point deserves remembering; it’s nearly identical to the lesson environmentalists are learning from the persistent demands of environmental justice advocates. Equity and ecology must be dealt with together.

**Notes**

1. Loren Lutzenheizer’s 1996 analysis shows that U.S. citizens with incomes over $75,000 emit nearly four times the amount of carbon as those whose income is under $10,000. We lack analysis on this inequality within other nations, but if the average American emits 16,000 times that of the average Somali, 100,000 or more poor Somalis probably emit as much as one millionaire in the United States.

2. This is a legitimate thing to do since virtually all the carbon emitted since 1945 is still in the atmosphere. Carbon dioxide has an atmospheric lifetime of 120 years, methane 12 years (CDIAC 1999).

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