



“Summary of article by Anil Agarwal and S. Narain: Global Warming in an Unequal World: A Case of Environmental Colonialism” in Frontier Issues in Economic Thought, Volume 6: A Survey of Sustainable Development. Island Press: Washington DC, 2001. pp. 101-104

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### **“Summary of article by Anil Agarwal and S. Narain: Global Warming in an Unequal World: A Case of Environmental Colonialism”**

The North-South divide is nowhere more pronounced than on the issue of who should assume responsibility for controlling the emissions of greenhouse gases in order to address the problem of global climate change. Southern advocates, like the Center for Science and the Environment in this selection, have argued effectively that the sacrifices must come first and foremost from those who caused the problem.

#### **Global Warming in an Unequal World**

“The idea that developing countries like India and China must share the blame for heating up the earth and destabilizing its climate, as espoused in a recent study published in the United States by the World Resources Institute (WRI)<sup>1</sup> in collaboration with the United Nations, is an excellent example of *environmental neocolonialism*.” (1) Based on politically motivated manipulation of available data, it is an attempt to shift some of the blame for global warming to the Third World while undercutting the argument that First World countries, which are responsible for the vast majority of greenhouse gas emissions, should take primary responsibility for reducing such emissions. Such an approach unfairly denies developing countries the right to develop by limiting both their energy production (much of which is from coal, which produces carbon dioxide) and their rice cultivation and livestock programs (which produce methane).

In fact, countries like India and China, which have over one-third of the world’s people, consume far less than that proportion of the world’s resources and contribute far less than that proportion of the greenhouse gases contributing to global warming. Those countries that consume more than their share and contribute more than their share of pollutants should be the ones to limit their development choices.

WRI’s calculation are faulty in that they overemphasize the role and scope of deforestation and methane production in global warming and underemphasize the production of carbon dioxide from the use of fossil fuels such as oil and coal. Because developing countries are largely responsible for the former, this skews WRI’s data and conclusions.

The India-based Center for Science and the Environment (CSE) has carried out its own analyses of existing data, which present a very different picture. On the issue of deforestation, WRI took the highest available estimates of deforestation for Brazil and India. In Brazil, WRI took the

1987 deforestation figure (8 million hectares) and used it as the annual average for the entire decade, even though existing data showed clearly that a variety of factors had contributed to exceptionally high deforestation rates that year. At such a rate, about one-fourth of Brazil's Amazon forests would have disappeared during the 1980s, a figure that clearly overstates the extent of deforestation by a factor of 3-5.

This is relevant to WRI's climate change calculations because deforestation contributes to global warming by eliminating natural sinks that absorb CO<sub>2</sub> emissions. So overstating deforestation in large Southern countries like Brazil and India exaggerates their contribution to the problem.

The same is true of methane emissions. Methane comes from a variety of sources, primarily fermentation in irrigated rice fields and stomach gas from livestock. But according to WRI, nearly 40% comes from other sources, such as leakages during hard coal mining and natural gas exploration. The estimates of livestock and paddy-field emissions are quite unreliable, compared with those for natural gas pipeline leakages. Yet WRI uses such estimates to attribute a high proportion of livestock emissions to developing countries, while failing to recognize that the way to reduce cattle herds, and methane emissions, is to reduce beef consumption, which mostly takes place in developed countries. Again, they have put the blame and responsibility in the wrong place.

### **Self-serving Approach**

WRI was attempting to calculate each nation's contribution to global warming, but they took the wrong approach. The correct approach would involve calculating each nation's total greenhouse gas budget, taking into account both its sources of emissions and its terrestrial sinks – the forests, vegetation and soils that absorb such emissions. One would then need to add to that budget each nation's share of oceanic and atmospheric sinks, which are a common heritage of humankind.

WRI in its report unfairly allocates the earth's ability to cleanse itself of greenhouse gases to different nations. If such sinks were allocated based on population, the figures would look quite different. India, with 16.2% of the world's population in 1990, was emitting just 6% of the world's carbon dioxide and 14.4% of the world's methane. Meanwhile, the United States, with just 4.7% of the world's population, emits 26% of the CO<sub>2</sub> and 20% of the methane. In addition, the U.S. and other developed countries have emitted large quantities of CFCs, which have no natural sink at all.

The WRI study instead makes the simple but misleading calculation that India is contributing to global warming in the same proportion as it is producing greenhouse gases, ignoring the allocation of sinks, or rather implicitly allocating those sinks based on a nation's production of greenhouse gases. The resulting figures are absurd. WRI effectively allocates sinks of 2,519 million tons of CO<sub>2</sub> and 35 million tons of methane to the US, while India, with over triple the population, is given only 604 million tons of CO<sub>2</sub> and 26 million tons of methane sinks.

CSE did its own set of calculations, correcting for this misallocation of the global commons and correcting for WRI's overestimation of deforestation rates. The results present a very different picture of who is responsible for global warming. The US's net contribution of greenhouse gases

accumulating in the atmosphere goes up from 1,000 million tons of carbon equivalent to 1,532 million tons. Meanwhile, China's share goes down from 380 to 35 million tons, and India's falls from 230 to near zero. Together, India and China account for less than 0.5% of net emissions into the atmosphere, while WRI's study claims the two countries contribute about 10%. After adjusting Brazil's deforestation rate, its net contribution drops from WRI's estimate of 610 million tons to CSE's estimate of 197 million tons.

### **Tradeable Permits**

These calculations are relevant to proposals for a system of tradeable permits as a way to reduce and control the emission of greenhouse gases. CSE believes such a system can work if countries are allocated permits in proportion to their population share and if the total quota for emissions equal the world's natural sinks. CSE's calculations are based on such assumptions. In addition to allowing the sale of excess permits by low-emitting countries to high-emitting countries, such a system should include a more substantial fine for emissions above available permits, which could go into a Global Climate Protection Fund. Based on CSE's calculations, developed countries would contribute the lion's share of capital for such a fund, which could contribute a great deal to global environmental protection. This would place responsibility where it belongs for cleaning up the global environment.

This does not mean that developing countries should not take steps to improve the environment. Deforestation should be controlled, for example, with afforestation rates eventually matching rates of wood use and burning. But "it is immoral for developed countries to preach environmental constraints and conditionalities to developing countries. They must first set their own house in order." (23)

### **Notes**

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1. World Resources Institute, (1990).