

No Proof Required

India: Need for Change in Climate

By

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Blurb: India should heed the Aesop dictum: "Be careful what you wish for, lest it come true"

The Environment Minister, Mr. Jairam Ramesh, struck several chords when he suggested, via a leaked letter to the PM, that the time had come for a gear shift in India's policy towards climate control. The traditionalists roared disapproval, and the climate control negotiators seem satisfied that order was restored. But there just might be more to the leaked letter.

I find it hard, perhaps impossible, to believe that the letter could have been written without the PM's consent. The reason? Assume for a moment that the A climate team decides to change its view. How should it, how can it, change a major point of view? An obvious choice is a leaked letter. This way no one has responsibility; the Pandora's box gets opened, the old can of worms disperse, and the policy gets changed. So, in my scenario, the whole change in policy was planned!

And for good reason. The old policy had outlived its usefulness, and it was somewhat inappropriate for a new world order, and a new India. There were two pillars to the old policy. First, the developed countries caused the problem in the first place, so it was their *moral* responsibility to clean up the atmosphere and to fund the developing countries in their efforts. Any connection between the "moral" argument and the hackneyed, and obsolete, arguments of the "non-aligned" movement is not coincidental. Many had believed that India had graduated from moral posturing, but alas, that is (was?) news to our climate team.

It is true that developed country growth, since the Industrial Revolution, has been a cause of climate change. But this growth occurred at a time when there was zero knowledge in the world that industrial growth would cause the problem. Even Einstein had not commented on this

aspect. So how can anyone be held accountable? Now the specious argument is often made, primarily by Indians, that ignorance of the law is no excuse. But we are not talking about any law here; by definition, when a law is formulated, the nature of the crime is known. In the case of the climate change, the ex-post crime was not a crime; indeed, it was an ex-ante virtue. Indeed, that is what development and poverty reduction is mostly about – gains in per capita income, and gains traditionally came through intensive energy use

The second foundation of India's climate policy rests on its pledge to never exceed the per capita emissions level of the developed countries. In 2007, India's per capita emissions were 1.2 tons per capita, just one tenth of the average for the developed countries. The Indian position seemed like a "no brainer" a no cost commitment for the future. While there may be an argument for changing our outdated moral stance, there seemed to be little reason to change the "commitment not to exceed" etc. Then why the attempt by the government of India to change its stance? The argument made by the traditionalists (paradoxically, in India most traditionalists are of the left persuasion) is that Jairam Ramesh was caving in to pressure from the West, especially America.

When in doubt, kick America and you cannot go wrong. And though it might change, America is *the* bad boy on climate change, along with India's major non-aligned ally, South Africa. But India's commitment is not to exceed the developed country average, which at 11.7 tons/capita of CO₂ emissions, was only 60 percent of the average for the US (19.1 tons/capita). Even then, the commitment not to exceed a level ten times as large seemed "reasonable". Not really.

The popular misconception is that emissions are proportional to per capita income. Not so. The rate of change of emissions per capita with respect to income per capita is less than unity. This occurs because as countries become rich, they move out of industry and into services; the latter is much less energy intensive. For example, a Wall Street trader needs precious little energy input besides a broad band. An automobile factory needs considerably more energy. So as the US moves out of car production and India moves into car exports, the energy uses of the two economies will tend to converge.

The importance of this convergence is illustrated by the figures in the Table. For 2007, actual data are reported; for 2025, the UN population projections are used along with forecasts of growth in per capita income. These forecasts are based on the growth experience of each country over the last five years 2004 to 2008. The world figures are the aggregates of about

140 countries. The model explaining emissions per capita (time-period 1990-2007) has the following explanatory variables – (log) per capita income, the square of this to capture non-linearity, the size of the middle class and the size of the rich class.

The model does not incorporate any explicit emission control policies, something that most parts of the developed world are committed to. The figures are for a “business as usual” situation. And in this scenario, India’s per capita emissions rise to 7.4 tons/capita by 2025, very close to the global average and about half the developed country average of 15.2 tons/capita. But note that this is a business as usual model; the Europeans are committing themselves to an 80-95 percent reduction from 1990 levels by 2050 and a 30 percent reduction by 2020. In 1990, the developed country average was 7.5 and in 2007, 9.0. A thirty percent reduction of even the latter figure would mean that the CO2 emissions from developed countries will be less than 5 in 2025 (5.25 in 2020). India, at that stage, with growth and development and reduction in poverty and a high moral quotient will be at 7.4, almost 50 percent higher than the developed country average!

No matter what the assumptions, or the math, or the model, the traditional Indian policy towards climate change is untenable. This is perhaps what the “leaked” policy was trying to convey. It is time the traditional climate establishment saw the writing on the wall.

Business as Usual Model for CO2 Emissions

	Population (billions)		Per Capita Income (PPP \$)		Per Capita Emissions (Actual) (tonnes)		Per Capita Emissions (Predicted) (tonnes)	
	2007	2025*	2007	2025*	2007	2025*	2007	2025*
<i>Regions</i>								
World	6.7	8	9,100	19,300	4.2	5.6	3.6	7.9
Developed	1.3	1.3	23,500	40,300	11.2	11.7	9	15.2
Less Developed	5.4	6.6	5,600	15,100	2.5	4.3	2.3	6.4
<i>Countries</i>								
Germany	8.2	8.1	24,800	33,900	9.7	4.5	9.7	15
Japan	1.3	1.2	27,200	39,300	9.7	14.6	10.5	21.6
United Kingdom	6.1	6.4	25,700	37,400	8.5	4	9.3	15.6
United States	3	3.5	36,800	47,300	19.1	20.1	12.3	14
Brazil	1.9	2.2	8,100	14,600	1.8	2.7	3.1	5.1
China	1.3	1.5	7,700	27,000	4.6	10	3.6	9.1
India	1.1	1.4	3,800	15,100	1.2	2.2	1.3	7.8
South Africa	4.6	4	9,900	22,600	7.6	11.9	3.8	6.1

Notes: * predictions for 2025 come from various sources; “actual” per capita emissions for 2025 are based on past growth patterns; “predicted” for all the years is based on a model. for population and per capita income (and the size of the middle and rich class) see Bhalla, Surjit S, *Second Among Equals: The Middle Class Kingdoms of India and China*, under review for publication, Peterson Institute for International Economics, Washington DC; 2007 draft available at www.oxusinvestments.com

The model for emissions relates per capita emissions to log per capita income, log per capita income squared, size of the middle class (in %), size of the rich class (in % of population); model estimated for all non-oil exporting countries, 1990-2007; data from International Energy Agency

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