

Inconvenient truths

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CLIMATE change is definitely the biggest story of the 21st century. But its sheer complexity and urgency is defeating us.

For the past 19 years – the first intergovernmental negotiation took place in Washington DC, USA in early 1991 – the world has been arguing about what it knows but doesn't accept. It has been desperately seeking every excuse not to act, even as science has confirmed and reconfirmed that climate change is real: it is related to carbon dioxide and other emissions,

in turn related to economic growth and wealth in the world. In other words, it is human-made and can devastate the world as we know it.

We all know today that the threat of climate change is urgent, that combating this threat will require deep and drastic cuts in greenhouse gas emissions. We also know the poor are feeling the pain of a changing climate – increased variations in rainfall, intensities of tropical cyclones; in many ways, they are more vulnerable and less able to cope with daily survival.

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The issues are clear. But the answers are lost in prevarication and pretence. The reason is simple: climate change is related to economic growth. It is, as is famously said, the 'market's biggest failure'. Despite years of protracted negotiations and targets set under the Kyoto Protocol, no country has been able to delink economic growth from the growth of emissions. No country has shown how to build a low carbon economy, as yet.

The inconvenient truth is not that climate change is real, but that climate change is about sharing necessary growth between nations and people. The rich must reduce so that the poor can grow. This was the basis of the climate agreement the world signed in Rio. This was the basis of the Kyoto Protocol, which committed the industrialized world to reduce its emissions by roughly six per cent over 1990 levels by 2008-2012. But the developed world has never been serious about this agreement.

The facts are clear. Between 1990 and 2006, carbon dioxide emissions of the industrialized rich countries (Annex I, without the economies in transition) have increased by 14.5 per cent. Furthermore, emissions from the growth-related energy sector have increased by 15 per cent. This is unacceptable.

This is when we know that climate change is about historical emissions, as a tonne of carbon dioxide emitted a century ago is equal to a tonne of carbon dioxide emitted today. According to estimates, industrialized countries are responsible for seven out of every 10 tonnes of carbon dioxide that has been emitted in the atmosphere from the start of the industrial revolution. This is the natural debt of nations, which like the financial debt must be repaid. But this is not all. Even in terms of current emissions, the difference is clear. Between 1980 and

2005, the total emissions of the US were almost double that of China and more than seven times that of India. In per capita terms, such injustice is even more unacceptable, indeed immoral. We have seen no real change, none that we can believe in.

It is widely accepted keeping global temperature rise below 2°C (and ideally 1.5°C) measured from pre-industrial levels (1850) is the threshold that will reign in climate change from being 'dangerous' to becoming 'catastrophic'.

But the number has hidden politics. The fact is once the world accepts the need to cap temperature, it is also accepting the need to cap emissions because of which temperatures are increasing. Meeting this global temperature target is only possible if the world limits the concentration of all greenhouse gases at 450 ppm, taking together the stock and current emissions. The space will have to be apportioned – budgeted – so that the earlier occupiers vacate and the new claimants fill in, in some proportion of equity. This is the politics of the global common atmospheric space.

In other words, the emission budget of 450 ppm has to be apportioned, based on equity, between nations. Without this budget sharing deal, the temperature cap becomes a virtual cap on the emissions of the developing world, as we are told that we too will have to peak in the mid-term and take meaningful deviations from our carbon-growth trajectory.

Let us be clear: the space is very limited. We know concentration of greenhouse gas emissions is already close to 430 ppm. But with some 'cooling' allowance, because of aerosols in the atmosphere, it comes to somewhere close to 390-400 ppm. In sum, not much space is left to be dis-

tributed and shared in our intensely unequal world.

But this is not all that confounds the science. The fact is that greenhouse gases have a long, a very long, life in the atmosphere. Gases pumped in, say since the late 1800s as the western world was beginning to industrialize, are still up there. This is the natural debt that needs, like the financial debt of nations, to be repaid. It was for this reason that the Kyoto Protocol, in late 1997, agreed to set emission limits on industrialized countries – they had to reduce, so that the developing world could increase. It is a matter of record that the emissions of the industrialized countries continued to increase. As a result, today, there is even less atmospheric space for the developing world to occupy. It is also evident that the industrial world did nothing; it knew it needed to fill the space as quickly as possible. Now, we have just crumbs to fight about.

It is also no surprise that western academics like Sir Nicholas Stern of the London School of Economics are now calling upon the developing world to take on emission reduction targets for the simple reason there is no space left for them to grow. The logic is simple, though twisted and ingenious. No space to grow. 'You cannot ask for the right to pollute,' they tell the developing world.

This is unacceptable. We know emissions of carbon dioxide are linked to economic growth. Therefore, capping emissions without equal apportionment will mean freezing inequity in this world. Unacceptable.

Equally, we know that this apportionment of the carbon budget is an intensely political decision, as it will literally determine the way the world will share both the common space and economic growth. It is only when we are agreed on the formula for sharing

that we can agree on how much the already-industrialized countries have to cut and by when, and how much the rest (India included) have to cut and by when.

Instead, what we have is a pincer movement. The already-industrialized do not want to set interim targets when they will reduce their emissions drastically. They want to change the base year from when emission reduction will be counted – 2005 or 2007, instead of 1990. This means two things. One, they want to continue to grow (occupy space) in the coming years and, two, the space they have already occupied – as their emissions have vastly increased between 1990 and 2007 – should be forgiven. But for this, if when we know that meeting the 450 ppm emission concentration target requires space to be vacated fast – they must peak within the next few years and then reduce drastically by at least 40 per cent by 2020 over 1990 levels. But why do this when you can muscle your way into space.

The hard issue is not gases, but how the world will cut carbon dioxide fast and hard. The problem is that the gas is released in the atmosphere because of our needs for burning fossil fuels to fuel our economy. The agenda is to reinvent growth without pollution. But this agenda is forgotten in the noise of mean and nasty negotiations. The reason is also clear: the rich world, tasked already with the legal obligations to reduce emissions, does not have a clue as to how it will do this without costing its economy. It needs a cop-out.

If we look at the various options countries have to cut emissions, there are three broad categories – based on what these will cost and availability of technology. The first are the those things that countries can and should do because they will cost little, or even

if the initial capital cost is high, pay back is quick – negative cost options. These include everything nice from changing incandescent light bulbs to CFL or LED, tightening standards for appliances we use in homes, retrofitting homes to make sure they are insulated and, of course, all other actions to improve efficiency in industry and transport.

The second set of actions, which will cost less than US\$ 30 (Rs 1500) per tonne of carbon saved category, are largely found in the land related sectors – from stopping deforestation to planting trees to absorb carbon dioxide. But the third set of actions, which are really the ones that can reinvent the energy system and combat climate change, come along with a big ticket price – anywhere between US\$ 50-150 (Rs 4000-7000) per tonne of carbon saved. These include solar energy systems, very high penetration of wind and nuclear power and retrofitting and building all coal based power plants with a still experimental technology of carbon capture and storage (literally meaning to take the emitted carbon dioxide and storing it deep underground).

As yet, for the past 20 odd years of the climate negotiations – from Rio to Copenhagen – the rich world has looked for small answers to this big problem. First, it believed that the magic bullet was to plant biofuels – crops that could fuel the world. It learnt quickly that there was a trade-off in this business as cost of food skyrocketed. The next techno-fix was to improve the fuel economy of each vehicle, till it found that even as cars became more efficient, people ended up buying more and driving more. The end result was the same. Emissions increased. Now it is banking on hybrids. It refuses to learn that the scale of transition will need more than

just an efficiency revolution; it will need a sufficiency goal.

Let us be clear it is this denial that is driving the world to our doorsteps. This is the real politics of climate change: the cost of paying for real emission reductions. And smart games to avoid it.

From the Intergovernmental Panel on Climate Change (IPCC) to the private consultancy work of McKinsey and Company – all say one thing and one thing alone. The cheapest options for cutting emissions are in the developing world. This is why they are desperate to make us part of the global deal. The transition to a low carbon economy will be on our backs. Worse, they don't even want to pay the real costs for it.

This is the objective of the new deal – the coalition of the willing – pushed at the last conference of the parties in Copenhagen. The formula is as follows: we first cut emissions at home for which we will pay through our resources. India, for instance, will have to bear the full costs of the 20-25 per cent carbon intensity reduction domestic target for 2020. Then we will get some money and some technology for the actions we take above this. More things to do that have never been done in the world as yet.

Also we will also have to stabilize forest cover and reduce gross deforestation. No arguments. But the world forgets that we do not cut forests because we have a penchant for it. Forests are cut because people have no alternative firewood or land. Trees are habitats of people. Not carbon sticks.

The US and the rest have also made it clear that we should not expect much money to be paid for this transition. In fact, they say that we should foot our own bill because we have now joined the high table of polluters – taken on a domestic target.

For money, we can sell 'offsets' to the developed countries – they will not cut domestically but pay us to cut emissions. And remember they want even the cheapest things credited to their account. All rich countries are expecting to meet their domestic targets through doing things in our backyard.

Let us be clear: we should be more than willing to build a low-carbon economy – build our cities with public transport or plant forests. But this will cost. Also, the rich world has to cut its obscene emissions and cut them fast. No other global deal should be acceptable.

Equity in climate negotiations is an uncomfortable and inconvenient truth. Just before the world was scheduled to meet at Copenhagen in December 2009, the move began to rewrite the climate agreement based on common but differentiated responsibilities. The US president, flush with his Nobel Peace Prize, was the architect of this new proposal to change the framework of the negotiations.

He proposed the following: first, the US will not take international commitments, but follow a domestic legislation route. So, it will act on emission targets legislated nationally. Second, the amount it will cut is nowhere close to what is required of it. The global consensus is that industrialized countries need to cut greenhouse gas emissions by at least 40 per cent over 1990 levels, to avert a 2°C rise in temperature. But the US proposed a puny target of cutting 20 per cent over 2005 emission levels by 2020. Since its greenhouse gas emissions have increased by 16 per cent between 1990 and 2005, what it is in effect saying is that it plans to do practically nothing but stabilize by 2020. Nothing to cut its gargantuan emission share – with some five per cent of the

world's people, it emits currently 18 per cent of global emissions. Forget even that this one country is responsible for 30 per cent of the global stock of emissions in the atmosphere. Criminal, when you think of the impact of climate change on the poor of the world.

Third, this puny target includes a huge amount of emission credits it will 'buy' from developing countries as offsets. In sum, it will actually continue to increase its emissions till 2017, at the very least. Finally, it has made it amply clear it will do this little bit only if China and India and other 'polluting' nations are with it in this grand cop-out plan.

In other words, the world now needed a second coalition of the willing – this time for President Barack Obama. This time, not to go to war with Iraq, but to blow up the chance of an effective agreement in Copenhagen. The generals then put together the coalition, building block by building block.

This is why, before the meeting began, the international media had been 'worked' to build a strong campaign to play on India's worst fears – being isolated and hated in a rich man's world. An image had been crafted: India is the climate renegade. India has not got the climate narrative right. She is the naysayer, a deal-breaker. Anathema to our whitewashed politicians, who crave for global attention and approval. So, if we want to be part of the coalition, we had to agree to their proposal – now called the infamous Copenhagen Accord.

The Copenhagen Accord, which encapsulates the elements of the new deal, was pushed through in the last hours of the conference of parties on Friday 18 December 2009. However, when the accord was presented to the plenary, there was no consensus on the

process and substance of the document. Finally, it was agreed to 'take note' of the accord. However, as the proponents of the Copenhagen Accord are powerful countries, there is concerted action to get it accepted and supported by all.

Will this 'pragmatic' approach to bring the world's most renegade nation to the table be effective for climate change? Unequivocally, no. It will instead dismantle a multilateral agreement based on setting global targets to reduce emissions, equitable burden sharing and strong mechanisms for the most powerful to comply. Worse, it will do little to cut emissions on the scale needed. The US is unwilling and the rest will now follow. Ineffective. Iniquitous. Bad for the world, worse for us.

What then is the way ahead? First, we must accept that the rich world must reduce emissions drastically. Let there be no disagreements or excuses on this matter. There is a stock of greenhouse gases in the atmosphere, built up over centuries in the process of creating nations wealth. This has already made climate unstable. Poorer nations will now add to this stock through their drive for economic growth. But that is not an excuse for the rich world not to take on tough and deep binding emission reduction targets. The principle has to be they must reduce so that we can grow.

The second part of this agreement is that both the poor and emerging rich countries need to grow. Their engagement will not be legally binding but based on national targets and programmes. The question is to find low-carbon growth strategies for emerging countries, without compromising their right to develop.

This can be done. It is clear that countries like India and China provide the world the opportunity to 'avoid'

additional emissions. The reason is that they are still in the process of building energy, transport or industrial infrastructure. They can make investments in leapfrog technologies to avoid pollution. In other words, build our cities on public transport; our energy security on local and distributed systems – from biofuels to renewables; our industries using the most energy and so pollution efficient technologies.

These countries also know that it is not in their interest to first pollute, then clean up; or first be inefficient, then save energy. But technologies that exist are costly. It is not as if China and India are bent on first investing in dirty and fuel-inefficient technologies. They invest in these, as the now rich world has done: first add to emissions; make money; then invest in efficiency. The agreement must recognize this fact and provide technology and funds to make the transition in the world. It is this that is most critical.

This pathway can change. But the world must give real change. Change we can believe in. The world must seriously consider the concept of equal per capita emission entitlements so that the rich reduce and the poor do not go beyond their climate quota. We need climate responsible action. We need effective action.

This allocation of the earth's global sinks to each nation, based on its population, will create a system of per capita emission entitlements, which taken together are the 'permissible' level of emission of each country. This would create the framework for trading between nations, as the country, which exceeded its annual quota of carbon dioxide, could trade with those countries with 'permissible' emissions. This would create the financial incentives for countries to keep their emissions as low as possible and to invest in zero-carbon trajectories.

Much as the world needs to design a system of equity between nations, all nations simultaneously need to design a system of equity within the nation. For instance, it is not the rich in India who emit less than their share of the global quota. It is rather the poor who do not have access to energy who provide us the breathing space. India, for instance, had a per capita carbon emission of 1.5 tonnes per year in 2005. Yet, this figure hides huge disparities. The urban-industrial sector is energy intensive and wasteful, while the rural subsistence sector is energy-poor and frugal. Currently, it is estimated that only 31 per cent of rural households use electricity. Connecting all of India's villages to grid-based electricity will be expensive and difficult. It is here that the option of leapfrogging to off-grid solutions based on renewable energy technologies becomes most economically viable.

If only India's entitlements were assigned on an equal per capita basis, so that the country's richer citizens pay the poor for excess energy use, this would provide both the resources and the incentives for current low energy users to adopt zero-emission technologies. Similarly, a rights-based framework would stimulate powerful demand for investments in new renewable energy technologies.

This rights-based agenda is critical for any resolution of the climate change challenge. The fact is that climate change teaches us more than anything else that the world is one; that if the rich world pumped in excessive quantities of carbon dioxide yesterday, the emerging rich world will do so today. It also tells that the only way to build controls is to ensure that there is fairness and equity in the agreement, so that this biggest cooperative enterprise becomes possible.