

Climate catastrophe in Bangladesh: A burning political issue

Peter Custers

In this brief essay I propose to analyse the danger that Bangladesh in the future will be visited by a climate catastrophe, as also the way in which such a catastrophe can be averted. Let's to start discuss more elaborately why climate change is a political issue, and not a matter of Nature's erratic behavior or spontaneous conduct. Today's climate change, as scientists have argued for long, is primarily the consequence of the choices which Great Britain and other rising European capitalist powers made when staging the 18th century Industrial Revolution. For the Industrial Revolution not only entailed a technological transformation, leading to the factory-based system of industrial production. Technological changes in methods of production were accompanied by a shift from reliance on renewable sources of energy, such as wind and fuel wood, - towards reliance on non-renewable energy sources, i.e. fossil fuels, starting with coal. More than two centuries of industrial production in which coal, oil and gas have been employed as principal energy sources, have resulted in emissions of such large quantities of greenhouse gases in the world's atmosphere, oceans and forests, as to make dramatic changes in the world's climate virtually inevitable.

Bangladesh's Vulnerability

Bangladesh threatens to be one of the first, and surely will be one of the major victims. For the country is extremely vulnerable to climate change - more so perhaps than most other nations on earth. Visits made by journalists and scientists to Greenland and the Antarctic region - regions located towards the world's far Northern and far Southern poles where massive sheets of ice exist -, in recent years have brought out that processes of the melting of ice here are well underway. Once these processes of melting will take on more massive forms, they inevitably will lead to higher water levels in all the world's oceans.

Increase may be five meters

Some climate scientists warn that the increase may be five meters or more within the present century! Climate change, if allowed to continue, then will affect many of the world's civilizations, - civilizations which more often than not have been built in coastal zones, in river deltas and along the world's main rivers. Even a relatively 'modest' rise in sea water levels, for instance of two meters, would already threaten to inundate highly populated areas, such as the vast urban conglomerates of Dhaka, Kolkata, Tokyo and Shanghai.

However, Bangladesh's vulnerability is more than average. It is larger for instance than that of deltaic regions belonging to the world's global North. This is due amongst others to the fact that Bangladesh's territory includes large rural regions which are both low lying and highly populated, - such as the country's South-Western region. A two meters rise in the level of water in the Bay of Bengal, as reports drafted under the United Nations system have warned, could result in reduction of Bangladesh's land mass by as much as a quarter, necessitating the evacuation of 25 to 30 million people. Moreover, Bangladesh's position is different from that of a Northern deltaic country such as the Netherlands, which too is low lying and very flat. For whereas the Netherlands as central capitalist power has been able to exploit Southern economies ever since colonial times, and in consequence has built up huge capital resources which it can harness towards

protection of its own people, - Bangladesh and other deltaic and low lying countries in the global South do not possess the same capital wealth. Lack of proper capital resources is one - though not the only! - factor that makes Bangladesh's position highly vulnerable.

Landlessness is a problem

Moreover, the issue of climate change, as the geography of poverty in Bangladesh's brings out, is also, partly, a class issue. Landlessness is a problem which, of course, exists throughout Bangladesh. As well know, the percentage of people belonging to the category of (functionally) landless peasants has been growing throughout the country ever since Bangladesh gained formal independence, in 1971. Yet the concentration of landlessness and of rural poverty is specially large in the South Western region. Here, the percentage of those who have to survive on less than \$ 1.- (one Dollar) a day reportedly is the largest in comparative terms. This, of course, does not mean that other sections of the people living in the South Western region will not face added hardship, once water levels in the Bay of Bengal will dramatically rise. Surely, those belonging to society's middle sections - small peasants, shopkeepers, teachers, health workers, etc. - threaten being uprooted as well. Nevertheless, it is no exaggeration to say that the issue of climate change is a class question, for the poor and extremely poor simply lack the means to protect themselves, or to shift towards safe heavens in the North.

Accumulation of CO2

Let's next return once more to the relationship between climate change and imperialist exploitation. Spokespersons of the previous, notorious American government of George W. Bush, against all evidence argued that the very existence of greenhouse gases in the world's atmosphere is a natural phenomenon for which humans bear no responsibility. It is therefore important to hammer on the point that CO2 and other greenhouse gases under capitalism have turned into a (gaseous) form of waste. Although CO2 has been present in the world's atmosphere since the beginning of planet earth and has mediated the world's climate for hundreds of millions of years, - it is emissions of CO2 and other greenhouses as 'byproduct' of industrial manufacturing and as side effect of the use of fossil fuels in transports, which is the very cause of modern climate change. Greenhouse gases comprise a whole range of gases besides CO2. For instance: methane, emissions of which are a side effect of modern agriculture; and water vapor, additional quantities of which are released in consequence of climate change itself. All greenhouse gases trap the rays of the sun's light in the world's atmosphere, intercepting sunlight and preventing it from being reflected back into outer space.

Further, greenhouse gases once deposited in the earth's atmosphere continue to reside there for a smaller or greater length of time. This results in a process of accumulation, i.e. accumulation of waste in the air as an accompaniment of the accumulation of capital on earth. For instance, carbon dioxide remains present in the atmosphere for a period of more than one hundred years. The time of residence of methane which has a large absorbing capacity, i.e. absorbing 20 times as much heat as does CO2, is relatively shorter. Yet here too accumulation takes place, for methane that is deposited in the world's atmosphere stays around for as long as a decade. To this must be added the fact that the quantity of green house gas emissions taking place every year, does not remain constant or even. For the process of capitalist accumulation on a world scale itself results in emissions of ever larger quantities of greenhouse gases. Each year more CO2 is added to the quantity of CO2 that was deposited in the atmosphere in the preceding year. Both because of the long residing time of greenhouse gases in the atmosphere, and in consequence of the exponential growth in the amount of greenhouse gases that is emitted, the dangers they pose for humanity's future are huge.

Greenhouse gases

The question which may be discussed next, is what quantity of greenhouse gases in the atmosphere is maximally permissible, before things do definitely go wrong. Here, truth requires us to admit that climate scientists are not all agreed on one figure. The

method by which the size of gaseous depositions are quantified is through carbon dioxide equivalents. Scientists measuring greenhouse gases in the atmosphere further speak of parts in a million, i.e. parts of greenhouse gas in a million of molecules in the air (ppm). With regard to CO₂, it is estimated that its presence in the atmosphere has increased by a third since the start of the Industrial Revolution, i.e. from 280 ppm then to 385 ppm by now. However, there is no unanimity of view as to what constitutes a safe limit. According to the IPCC for stance, 450 ppm is a tolerable level. Yet some climate scientists, such as the respected American climate archeologist James Hansen, argue that with 385 ppm we have already transgressed the limit of what's permissible: if we want to save planet earth from catastrophic climate change, CO₂ levels need to be brought down to 350 ppm at most! Surely, from a precautionary point of view it would be foolhardy to take unnecessary risks, and put the upper limit higher than is absolutely safe.

Moreover, climate scientists increasingly point at the danger that tipping points suddenly will be reached. The concept of tipping points being referred to in the world's media refers to the fact that climate change could suddenly be accelerated through what are called 'feedback' effects, i.e. secondary processes of change which follow initial climate change. For climate change does not take place in a linear fashion. Acceleration is for instance implied by the disappearance of the so called albedo, which is the phenomenon whereby icecaps and icebergs reflect sunlight back into outer space. In as much as the melting of ice leads not only to a rise in oceanic water levels, but in the very same go also cancels out the albedo effect, - the warming up of the earth's atmosphere indeed tends to be speeded up by initial climate change itself. Nobody can predict with certainty when climate change will run out of control. Yet the concept of tipping points brings out the risks of a sudden deluge. Once climate change is accelerated in consequence of worldwide processes of the melting of ice and permafrost, the rise in the oceanic water levels could indeed be exceedingly fast.

Cyclones and climate change

Perhaps this is the point in my discourse where the question of a potential relationship between climate change and cyclones can best be discussed. Bangladesh and its neighbor Myanmar over the last one and a half year have experienced three major cyclones. First, in November of 2007, cyclone Sidr struck, claiming over 10 thousand lives in Bangladesh's South West. Within roughly half a year from then, Myanmar experienced an even more devastating cyclone, - one which probably caused over a hundred thousand deaths. Then recently again, the coastal regions of Bangladesh were hit by another cyclone, one which claimed fewer human lives, but which damaged coastal embankments and led to the displacement of half a million people. Cyclones are, of course, now new phenomenon for Bangladesh. They have claimed much larger numbers of victims in the past, in 1970 and 1991, than on recent occasions. Yet the question that needs to be posed is whether the recent succession of cyclones has anything to do with the process of human-induced climate change. Might there perhaps be a connection between the frequency of cyclones and occurrence of climate change, or between the latter and the intensity of cyclones which strike the coastal regions in the Bay of Bengal?

Climate scientists don't seem to agree yet on the answer to these crucial questions, and the evidence contained in reports that have been drafted is contradictory. And yet there is much reason to be alert. Research carried out on cyclone Katrina, which hit the US city of New Orleans in 2005, for instance, indicates that this cyclone reached its peak precisely when passing over an area of the Gulf of Mexico that was heated by an infusion of deep warm water hailing from the Caribbean. Scientists have also stated more than once that the very occurrence of cyclones is related to the warming up of the surface water of seas and oceans. Hence, the prevention of the further warming up of the earth and of the surface of the oceans is crucial, if we are to reduce the risk that devastating cyclones in the future will take place. Even if we can't be hundred percent sure as to the precise ways in which climate change and cyclone events interact, - the risks associated with cyclones come on top of those deriving from a rise in water levels in oceans and seas.

Shift to farther north

Perhaps the most alarming implication of rises in water levels is that the impact of cyclones which strike from the Bay of Bengal, is shifted farther North. First, a rise in water levels of just 1 or 2 meters will inevitably lead to the loss of low lying coastal areas, of chars and islands which at present are being cultivated, and where millions of poor and landless families eke out a meager living. Secondly, the inundation of vast tracts of low lying land will shift the burden of effects created by cyclones towards the North. Whereas so far, these burdens were carried by people living in occupied chars and mainland areas belonging, for instance, to Patuakhali, Bakerganj and Borguna, - after the inundation of Bangladesh's Southwestern region the cyclones' power of devastation will fall on Bangladeshi Districts which in the past have been relatively carefree. The question which then needs to be posed is whether the nation can afford to take so many risks relating to climate change. Will the country allow the North to play with Bangladesh's future generations? Or do we need to agitate nationally and internationally, so as to avert the risk of a climate catastrophe?

Adaptation or prevention?

Let's then briefly discuss what perspective we need for policymaking, for social change aimed at stemming climate change now. At the level of Bangladesh's state bureaucracy a certain awareness exists of the fact that the country in the future threatens to be victimized by climate change. Sections of the country's national press and media and of nongovernmental organizations these last few years have been quite vocal as well. Yet in line with the country's history of dependence on external financial support, - much, too much energy has so far gone into shopping for money, money aimed at implementation of so called 'adaptation measures'. Of course, coastal embankments and shelters aimed at protecting people living in coastal zones are essential. Yet the question that needs to be posed is: how much can ultimately be achieved via adaptation measures alone? Will such measures suffice? Don't we risk having to rebuild coastal embankments many times over? And what when climate change reaches the tipping points of which I have spoken above? Will adaptation measures still be adequate to cope with accelerated climate change, with rises in sea water levels of 2 meters or more? Is a different course of action, one straightforwardly aimed instead at prevention, at averting climate disaster, ultimately not to be preferred above measures which by themselves can only help to counter a part of the huge damages that threaten to occur?

Here is, then, where the responsibility of Bangladesh's progressive forces comes into play. For a policy aimed at prevention can only be instituted at Bangladesh's state level, if a massive effort be made towards mobilizing popular forces from below. Instead of limiting oneself to demanding financial concessions from imperialist governments, - a high target needs to be set towards limiting emissions of carbon dioxide and other greenhouse gases. Whereas the world's governments are still haggling over targets such as a 20 or 50 percent reduction in CO2 emissions by 2020 or later, - the people of Bangladesh have the right to demand that emissions be brought down speedily and by 90 percent. Only a rapid transition towards a world economy which relies on renewable energy instead of fossil fuel resources will do. Such a transition is not only technically feasible, but is also feasible in an economic sense. Through the institution of Keynesian measures of state intervention, such as taxes and public investments privileging renewable energy, the given transition can well be staged. Yet it will not be achieved unless the world's working class and the peasantry take the lead.

Dr. Peter Custers is campaigner and theoretician,
Leiden, the Netherlands. www.petercusters.nl.