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GLOBAL WARMING: WHO'S TO BLAME? Policy Implications for the Third World

By Gerald Foley

Under Special Arrangement with PANOS

The industrialised countries are the principal source of greenhouse gases. Therefore they bear the main responsibility to the world community for ensuring that measures are implemented to address the issues posed by climate change.

Some 120 countries are attempting to complete negotiations for a framework convention on climate change in time for signing at the "Earth Summit" in Rio de Janeiro in June.

The convention will not succeed in setting binding targets for limiting greenhouse gas emissions. However, it will probably establish the objective of a "safe level"; will refer in general terms to the need for stabilising emissions in industrialised countries while allowing for expansion of developing country outputs; and will touch on the issues of incentives for energy efficiency and provision of finance for the use of climate-friendly technologies in the Third World.

GLOBAL warming is not just a question of obscure scientific theory. If it is really taking place on a significant scale, it is of enormous practical importance for the not very distant future of the whole human race.

The greenhouse effect is so-called because of its similarity to what happens in a greenhouse when the sun is shining. Sunshine coming in through the glass roof and walls of the greenhouse heats up the interior so that its temperature becomes higher than that on the outside. The reason is that the glass stops a certain proportion of the heat from escaping. The greenhouse acts as a heat trap.

In the case of the Earth, the greenhouse effect is a result of the presence of small quantities of certain gases in the atmosphere. These are called greenhouse gases. The gases in the Earth's atmosphere, therefore, act in a similar way to the glass in a greenhouse.

The most important greenhouse gases — those which trap heat inside the atmosphere — are water vapour and carbon dioxide. Others which also occur naturally are methane, nitrous oxide and ozone. In addition, there are several manufactured gases, of which the most important are the chlorofluoro carbons (CFCs), which have an extremely potent greenhouse effect.

In addition to their role as greenhouse gases, CFCs are also important because they damage the ozone layer of the upper atmosphere. In doing so, they expose humans and other living creatures to the dangers of increased ultraviolet radiation.

Intergovernmental action group

The best known and most prestigious set of initials in the global warming discussion is that belonging to the Intergovernmental Panel on Climate Change (IPCC). This was set up under a joint initiative by the World Meteorological Organization and UNEP in 1988. At its first session, in November 1988, the IPCC set up three working groups to examine the global warming issue.

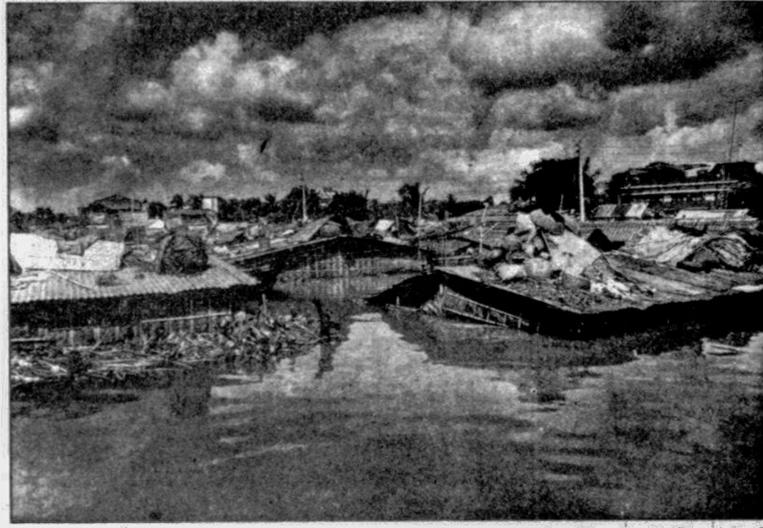
The human race has a variety of choices as far as the build-up of greenhouse gases in the atmosphere is concerned. One is to take little or no action to alter the present trends of steadily rising emis-



Fossil fuel consumption is at the heart of global warming.



Drought in the Sahel



Flooding in Bangladesh

sions of carbon dioxide and other gases. This is often referred to as the "business-as-usual" scenario.

Putting the projected contribution of carbon dioxide and the other gases together, the IPCC's business-as-usual scenario envisages an increase in greenhouse gases equivalent to a doubling of the carbon dioxide content of the atmosphere by about the year 2030. Of that total, around half is projected

to be in the form of carbon dioxide itself, with the combined effect of the other gases making up the other half.

One well-known climatologist, James Hansen of NASA's Goddard Institute for Space Research in New York, is not in much doubt. At a meeting of the US Senate's Energy Committee in June 1988, he declared that he was 99% certain that the global warming which happened during the 1980s was not a chance

event, adding that "it is time to stop waffling so much and say that the evidence is pretty strong that the greenhouse effect is here." However, many of his fellow scientists thought that his statement was not warranted by the scientific evidence.

Sea level changes

Many of the world's richest and most heavily populated agricultural zones are in low-lying lands along the sea

coasts. They include the deltas of great rivers such as the Ganges-Brahmaputra in Bangladesh, the Nile in Egypt, the Mekong in Indo-China, the Indus in Pakistan and the Yangtze and Hwang Ho in China. Other low-lying areas vulnerable to rising sea levels are in Guyana, Papua New Guinea, eastern Africa, India and Indonesia. The entire land surface of the Maldives in the Indian

Ocean, and some Pacific island countries such as Kiribati and Tuvalu, is only a few metres above sea level. Much of the Netherlands is 5 metres below sea level. Many of the world's largest cities, including Calcutta, Shanghai, Bangkok, Jakarta, Tokyo, London, New York, Miami, Venice and New Orleans, are also in low-level coastal areas. Any rise in sea level increases the risk of flooding. This is particularly the case if

global warming is associated with fiercer storms and hurricanes. Some of the worst disasters in Bangladesh, such as that which killed 250,000 people in 1970, and that which claimed a similar number of victims in 1991, were associated with cyclones. When the sea broke the coastal defences in the Netherlands and the east coast of Britain in 1953, it was a result of major storms in the North Sea.

The IPCC is chilling in its projections... a rise of sea level by 30-50 cm would affect the habitability of low-lying coastal regions significantly and a one metre rise would impact 360,000 km of coastline, render some island countries uninhabitable, displace tens of millions of people, threaten low-lying urban areas, flood productive land and contaminate fresh water supplies.

A 50 cm rise, for example, would cover an area of Egypt containing a sixth of its total population and farming land. A one metre rise in sea level would cover 14% of Bangladesh, displacing 10% of its people and 14% of its agriculture; physical infrastructure destroyed would include 1.9 million homes, 1,500 km of railway, 10,300 bridges, and 700 km of metalled road. The Sundarbans mangrove forests covering over 400,000 hectares would be destroyed by increasing salinity and then inundation. The total economic output lost would be equivalent to 13% of the country's GDP.

Allocating responsibilities

There is no doubt that the industrial world has the major responsibility for historic and present carbon dioxide emissions from the use of fossil fuels. But the origin of the remainder of the greenhouse gases and the way in which overall emissions are likely to evolve in the future are more contentious matters.

The approximate division of 1990 fossil fuel consumption between the main consuming countries and regions shows that over a quarter of the consumption is in North America; this is despite the fact that it contains only about 6% of the world's population. The USSR and Eastern Europe come next with about 22%. Western Europe's share is 16.4%. China, with about a fifth of the world's population accounts for 9.2% of fossil fuel consumption, while India's share is just 2.4%.

These proportional shares have been gradually changing and are likely to continue to do so in the future. Energy consumption growth in the industrial world had slowed considerably in the past two decades and was about 20% in total over the 1980s. Growth rates

in the Third World during the same period were much higher. In both Africa and Latin America, energy consumption increased by around 40% in the 1980s, and by 60% in Asia excluding Japan.

Another frequently expressed environmental concern is that coal, which tends to be the cheapest form of energy for power generation and other large-scale uses in some developing countries, is likely to increase its share in Third World consumption. This is true, but again the issue needs to be kept in perspective. The OECD nations and the countries of the former Soviet bloc presently account for 63% of world coal consumption. China's consumption is 24% and India, the next largest consumer in the developing world, uses a mere 4%. Carbon dioxide emissions from coal are primarily a problem of the industrial world, and are likely to remain so for a considerable time.

Apart from the CFCs which are primarily emitted by the industrial world, great uncertainty surrounds the sources of other greenhouse gas emissions. Any allocation of responsibility on a national basis can therefore be made only on an extremely tentative basis.

Estimates of emissions from deforestation and the extension of farming are in the range 1-2 billion tonnes, but no one can be certain. Many of the estimates for Third World emissions appear to be based on figures for rates of deforestation which are now acknowledged to be too high and are being revised downwards.

It is also highly probable that the rates of carbon dioxide emission assumed to result from deforestation exaggerate the true effect. Much of what is defined as deforestation by foresters does not involve the complete destruction and combustion of all the existing vegetation.

Blaming others

The World Resources Institute (WRI), in Washington DC (US), sparked off a major controversy in the middle of 1990 when it published a world league table of responsibility for greenhouse gas emissions. This clearly ranked the United States in first position followed by the USSR, but controversially allocated the next three places to Brazil, China and India. Commenting on its presentation, the WRI stated: "A major finding of World Resources 1990-91 is that Brazil is a larger source of carbon dioxide emissions than the United States in 1987, primarily because of massive deforestation. China's greenhouse gases, 6.6% of the world's total, stemmed from fossil fuel use and rice growing. India's extraordinarily high methane emissions — 98,000 metric tonnes, second only to the United States — are traceable to rice growing and livestock."

This was immediately seen by Third World groups as a means of shifting the focus away from the massive releases of carbon dioxide and CFCs by the United States and other industrial countries. The Centre for Science and Environment (CSE) in New Delhi (India) called the report an "excellent example of environmental colonialism," adding: "The report of the World Resources Institute (WRI), a Washington-based private research group, is based less on science and more on politically motivated and mathematical juggling. Its main intention seems to be to blame developing countries for global warming and perpetuate the current global inequality in the use of the earth's environment and its resources.... The WRI's report is already being quoted widely and its figures will definitely be used to influence the deliberations on the proposed, legally binding, global climate convention."

A global responsibility

It is, indeed, important that the burden of dealing with the global warming threat is shared equitably. It is also clear that the problem is a global one which will have to be solved by concerted global action. This will require a degree of all-round responsibility and, indeed, generosity which has not been achieved so far.

Consciousness of the need to bring about increased and more informed Third World participation in the global warming debate is growing. The IPCC set up a Special Committee on the Participation of Developing Countries to study the factors which have inhibited Third World involvement in its deliberations. The committee identified five areas of particular concern:

- insufficient information;
- insufficient communication;

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Preserving Treasures of the World of Celluloid

by Aasha Mehreen Amin

ENTERING the two storied red-bricked building that goes by the name of Film Archives' one is forced to ask oneself — is this it? A few cramped rooms, a tiny film vault and a miniature library hardly do justice to something as valuable as a film archive. With very little resources and a phlegmatic attitude from the government, the place has been reduced to, as the present curator Mr Ghulam Panchatan puts it "an apology of an archive where films are just stowed away". Although the management and staff try their best to maintain the films, lack of personnel and proper materials have made this very demanding job rather difficult.

But this is only one side of the 'picture'. The other side is that in spite of its limitations the Bangladesh Film Archives has become a provisional member of FIAF — Federation Internationale Des Archive Du Film. What this really means is that it has become an internationally recognized body through which the scope of cultural exchange is unlimited.

Part of this somewhat moderate success is due to the Archives being able to preserve a rare collection of old films. This includes the one and only original print of Promoiish Barua's Devdas released in 1935, Dhruvo a film acted and directed by Kazi Nazrul Islam and Raja Harishchandra — the first silent film released in West Bengal in 1912. Other hidden treasures include the first feature film made here — Abdul Jabbar Khan's Mukh O Mukhash, Sheikh Nyamat's Surja Dighal Bari and Fatch Lohani's Asia. And it is safe to say that any film made since '71 that is worth seeing can be found in the Archives.

It now holds over 600 films on reel including 116 feature films and 507 documentaries. The foreign collection though not as impressive, has films from India, Pakistan, China, Japan, Sweden, USA, Poland, France, Russia, Bulgaria, Czechoslovakia and England. Taking a peep into the film

vault one can get glimpses of reels of Eisenstein's Battleship Potemkin — one of the very first, and very memorable, Soviet silent films or the Academy Award winner 'On Golden Pond'.

To talk of the Archives, however, without mentioning the man who made its very existence possible would be an unjustifiable oversight. Mr Abdul Rouf — the former curator and founder of the Film Archives speaks of his 14 years at the institute he created with love and nostalgia.

It was in 1977 that Mr Rouf came to Dhaka after completing his tenure as Cultural Secretary at the Bangladesh

High Commission in London, only to find that there was no such thing as a film Archive in Bangladesh. By 1978, however, he had rented a house in Dhanmondi and became the Project Director and curator of the would be archive. Thus began the first phase of the project of building up the archive by collecting films from various sources. This is where the story of how Devdas was found comes in. A film director from the Puna Film Institute had told Mr Rouf of his suspicion that the original copy of the film was somewhere in

Bangladesh. But even after a long and arduous search going all over Bangladesh not a trace of Devdas could be found. It was in June '81 that Mr Rouf found the reels of the film lying at the bottom of a stack of dusty old film reels at the FDC (Film Development Corporation) store. The last reel was in very bad condition but Mr Rouf managed to restore it and get out a decent print after making a negative. The film, now a much sought after item by the Indian government is locked up in the vault of the Archives.

fields. Among them were UG Samanth, one of the leading animators in India, Mrinal Sen and Gita Sen, P.K. Nayar, Swedish film director Madame Anallina and German film director Kristoff Hubner. As a result of these efforts, the institute became a vital centre of research and learning and the word 'film' began to take on a new and exciting dimension, Mr Rouf stated.

This wave of excitement, however, soon dwindled over the years and both the Institute and Archives became shadows of a 'glorious past'. The present Archives located in a far off corner of the Gana Bhaban buildings is under

now a single shot may be needed to know things like how people dressed, how a scene was acted, directed etc." In most countries it is required by the government that a copy of any film made in the country has to be kept with the film archive. In Bangladesh, however, no such law exists and local producers are quite indifferent about sending copies of their films to the Archives. Many films, therefore, worth preserving, are not added to the Archive collection and are forgotten with time.

But all is not lost, says Mr Rouf. A proposal was made to the government some time ago, for building a Film Archive and Institute on a two acre plot at Aagorgaon. This complex will have, among other things, a film vault, library, a research room, a video room, exhibition centre, auditorium and a festival hall with 1200 seats where regular festivals can be held.

If all this materializes a renaissance in film can be anticipated. Not only will the general public be able to see films they would not normally be able to see in cinema halls, but people who are interested in film whether for research or study will get a unique opportunity to explore and discover their talents.

There is no denying that, apart from the entertainment value it has, film is also a powerful medium of influencing the politics, values and customs of a society. With the deterioration in the quality of film that is so apparent in our country today, such endeavours are sure to produce films that have something more to offer than unrealistic, crude fantasies of debauchery and violence. As for a source of reference and learning, the archive will be an invaluable resource for posterity. Think of it this way: a few hundred years from now our progeny will be able to actually 'see' what a mess their ancestors made of the world, just through a few reels of celluloid!



A scene from Abdul Jabbar Khan's 'Mukh-O-Mukhash'.

The other phase of the project was creating a Film Institute where active research and study in film could be undertaken. This began to materialize in 1980 and over the next few years Mr Rouf put his heart and soul in making the institute into a throbbing entity. With the help of film experts like Alamgir Kabir and other qualified teachers, a whole curriculum was developed. Courses included film appreciation, script writing, direction, acting photography and autography. To give the students greater exposure Mr. Rouf managed to bring film directors from abroad to come and teach courses in their



The film vault