Selected extracts from January's issue of Forum

Stuck here on earth

ADNAN SIRAJEE

URRENTLY, humankind is set in motion to create history, and what is history, indeed, but a record of change? The guided principle behind this history is none other than climate change. The world today is a much warmer place than it used to be in the last century and this rate of warming is unprecedented, even going back millions of years. The sea levels are rising, even small changes in the sea level have large effects; for example: a one metre rise in the sea level will claim 15-20% land from the southern parts of Bangladesh, Maldives will go under and other small island states, coastal communities and low-lying areas of the

As Joseph Stiglitiz rightly assumes that the world is engaged in a grand experiment, studying what happens

world will fall to a similar fate.

when you release carbon dioxide and certain other gases into the atmosphere in larger and larger amounts. The scientific community is fairly certain about the outcome and it is not pretty. If we had access to other planets, it might make sense to conduct such an experiment, so that if things turn out badly as indicated by the scientific community, we would simply move to the next one. Unfortunately we are stuck here on Earth, with only one planet, one hope and therefore we cannot afford to engage in such risky experiments.

What the future will bring, we cannot say, but even the present has brought us considerable warning signals sufficient to drive us towards a new direction in thinking. Had it been the case, the climate change dialogues around the globe would have underpinned the greatest single impact of climate

change migration. Unfortunately, this has not been the case. Suffice to say policy makers and planners of the world have successfully failed to put a human face on a topic.

The First Assessment Report of the Intergovernmental Panel on Climate Change (IPCC AR1) in 1990 noted that the greatest single impact of climate change might be on human migration. The report estimated that by 2050, 150 million people could be displaced by climate change related phenomenon like desertification, increasing water scarcity, floods and storm etc. More recent studies on the impact of climate change estimates even more people to be displaced in the same period; for instance, Professor Norman Myers of Oxford University argued that when global warming takes hold there could be as many as 200 million people displaced by 2050 by the disruptions of

monsoon systems and other rainfall regimes, by droughts of unprecedented severity and duration, and by sea level rise and coastal flooding. Again, the Stern Review on the Economics of Climate Change in 2006 and a Christian Aid report in 2007, estimates displacement of respectively 200 million and 250 million people by climate change related phenomena. Thus, the number of future climate migration shows a terrifying figure, a tenfold increase on today's entire population of documented refugees and internally displaced persons (IPDs). It would mean that by 2050 one in every 45 people in the world would have been displaced by climate change.

An identity crisis

Climate change and population displacement nexus is relatively a new concept. It is only in the last 20 years or

so that the international community has slowly begun to recognise the wider linkages and implications that a changing climate and environment has on human mobility. However, the notion was conceptualised in climate change chapters only recently. Despite the global manifestation of the climate change and population displacement nexus, the terms and concepts referring to climate change -- affected population are found dissimilar throughout the literature. Ecological and environmental refugees, climate refugees, climate change migrants and environmentally-induced forced migrants are a few of the terms commonly used.

The United Nations Environment Program (UNEP) termed these future migrants as "environmental refugees." On the contrary, the United Nations High Commissioner for Refugees (UNHCR) and International

Electrification through biogas

advised that the terms like 'Climate Refugees' or Environmental Refugees' have no legal basis in international refugee law and should be avoided in order not to undermine the international legal regime for the protection of refugees. Attempts were also made to treat climate change induced forced migrants as "environmentally displaced persons" which is in line with the mandate of the UNHCR's Internally Displaced Persons (IDPs) wherein international communities were made less responsible to mitigate the crisis.

Organization for Migration (IOM have

For the full version of this article please read this month's Forum, available free with The Daily Star on January 4.

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The polluter pays principle

SHAHPAR SELIM

HE last few months has seen startling news headlines on river pollution and a momentous High Court Directive given on June 25, 2009 to save ecologically critical rivers surrounding Dhaka. Another High Court directive was given to the tannery industry to expedite its relocation to Savar, where they will be allowed to operate using Central Effluent Treatment Plants (CETPs) to reduce the impact of their effluents on surrounding water bodies. More and more, we see an emphasis on making the polluters accountable for the ecological damage they are causing to themselves and to their future generations. Indeed, holding the current economic drivers accountable for environmental damage is also at the heart of Bangladesh's climate change demands. However, looking for environmental responsibility as a piecemeal initiative (e.g. separate HC directives noted above) may be a beginning, but we need to think of it within a broader framework. It is time Bangladesh addresses pollution management, financing and cost recovery by rethinking the current modes of operation employed by the regulatory stakeholders in line with the opportunities presented within the full cost

Background to environmental costs and the polluter pays principle (PPP) The polluter pays principle (PPP), simply put, means that the person who is responsible for creating pollution, should be made financially responsible for the damage caused to others. The PPP shifts the burden of pollution-led suffering from the affected to those who are responsible for such damage. While most polluters have been able to pass on the costs (ecological and human health costs, often times not calculated in monetary terms) of pollution to others (and to themselves as well as we all live in a connected ecosystem), and while in practice it has been difficult to identify the polluters and the exact measure of pollution related harm caused to the affected

recovery options using polluter and

user pays principles.

people, if regulators are serious about sustainable development, and have serious commitment towards ecological preservation and ecological equity, the acceptability of fault-based liability should be a cornerstone of Bangladeshi environmental policy.

The PPP is not new for Bangladesh: PPP was first mentioned in the 1972 Stockholm Declaration Recommendation by the OECD Council on Guiding Principles concerning International Economic Aspects of Environmental Policies. Bangladesh is a signatory to the Rio Declaration, which clearly enunciates the PPP via Principle 16, "National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment." The PPP is further mentioned in Agenda 21 and the World Summit on Sustainable Development (WSSD) Johannesburg Plan of Implementation (Earth Summit 2002). The PPP is also the cornerstone of European Community Environmental Policy. The Indian government has embraced PPP in its 11th Five Year Plan in 2006, while Thailand adopted the PPP in 1992's Environmental Act B.E. 2535 and in its environmental conservation strategies of the 8th Economic and Social Development Plan. PPP is also the cornerstone of international environmental law covering trans-boundary pollution issues. However, recently the PPP has evolved into different strands, including the extended or strong PPP which calculates for the costs related to accidental pollution.

Consequently, the GoB has embraced the PPP in the spirit of faultbased liability in its environmental laws. The 1995 Bangladesh Environment Conservation Act, explicitly says in para 7, "If it appears to the Director General that any act or omission of a person is causing or has caused, directly or indirectly, injury to the ecosystem or to a person or group of persons, the Director General may determine the compensation and

direct the firstly mentioned person to pay it and in an appropriate case also direct him to take corrective measures, or may direct the person to take both the measures; and that person shall be bound to comply with the direction."

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ANGLADESH still remains ar agrarian country. Because of increasing population growth, the amount of per capita cultivable land is dwindling very fast. In order to survive as a nation, and to prosper in the 21st century, Bangladesh will have to shift from an agrarian economy to an industrial one. Consequently, power generation will have to increase substantially

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to achieve that goal and measures to achieve countrywide transmission coverage should be initiated on a priority basis. Electricity is an essential prerequisite for technological progress and economic growth. Bangladesh has been facing a severe power crisis for about a decade. Currently, power generation in the country is almost entirely dependent on natural gas (i.e. 84.5% of total electricity generation installed capacity). At the current 10% annual rate of growth of consumption, the proven reserve of natural gas may not last more than the next 10-15 years. Electrification of villages in remote areas usually requires large investment and leads to power losses associated with transmis-

sion and distribution networks.

One of the great promises of renewable energy technologies is the potential to provide electricity in areas not served by national power grids. The Renewable Energy Policy of Bangladesh, published in 2008, stated that renewable energy could play a vital role for off-grid electrification in the country. The main renewable energy resources in Bangladesh are biomass, solar, wind and hydropower. The hydropower potential of Bangladesh is limited due to the relatively flat topography of the country. Most of the potential sites for wind power utilisation are situated in the coastal regions. Wind power generation in Bangladesh has certain limitations due to the lack of reliable wind speed data and the remarkable seasonal variation of wind speed. Another potential source is solar energy (utilising solar photovoltaic (PV) systems) but the high capital investment cost of solar PV is a big barrier. Biomass is the major energy source in Bangladesh and biomass utilisation systems represent a proven option for small to medium- scale decentralised electricity generation.

Energy situation

Bangladesh's per capita energy consumption is very low, the lowest within the Indian subcontinent. The 2008 energy consumption value stands at about 250 kgOE which is quite low compared to 550 kgOE for India, 515 kgOE for Pakistan, 430 kgOE for Sri Lanka, 475 kgOE (average) for South Asia and far below the world average of 1680 kgOE. Total primary energy

consumption in 2008 was 33.50 MTOE and the energy consumption mix was estimated as: indigenous biomass 62%, indigenous natural gas 25%, imported oil 12% and imported coal and hydro combined about 1%. Twothirds of the country's total population live in rural areas, meeting most of their energy needs (domestic, commercial and industrial) from traditional biomass fuels. Various marketing companies under the Bangladesh Petroleum Corporation (BPC) distribute kerosene and diesel throughout the country at a uniform tariff rate set by the government. Around 32% have access to electricity, while in rural areas the availability of electricity is only 22%.

But the quality of service in rural areas is very poor: frequent outages, voltage fluctuations and unreliable and erratic supply. Only 34% of households have natural gas connection for cooking purposes. Only about 23% households use kerosene for cooking and the rest (over 90%) depend on biomass. Contribution of biomass in total primary energy consumption of Bangladesh is around 60%. The major sources of traditional biomass are agricultural residues (45%), wood and wood wastes (35%) and animal dung (20%). Industrial and commercial use of biomass accounts for 14% of total energy consumption. 63% of energy required in the industrial sector comes from biomass fuel.

Primarily biomass and kerosene are used by a majority of households. Natural gas, liquefied petroleum gas (LPG), electricity, kerosene and biomass fuels are mainly used for cooking. In areas without natural gas and electricity, biomass is used to meet household cooking needs. A good amount of bio energy is used for parboiling and space heating. A recent urban household survey estimated that consumption of biomass fuel is 319 kg per capita per year.

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Reawakening

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ACH year marks a milestone in the march of time, and every year, we in South Asia, never fail to recall the anniversary of our triumph over colonialism, and somewhat less jubilantly, a historic but bitter partition. Beyond this truly liberating experience, the rewards of freedom would appear to have eluded the children of liberty. Quarter of a century onward, predictably enough, we opted to repeat history, with undiminished ferocity. What was once considered "the jewel in the crown" of the Empress of India, fragmented into India, Pakistan, and better late than never, Bangladesh. In the first instance, it was the largest mass migration in history, and in the latter, yet another chapter in the continuing saga of mass murder. In both instances, millions were massacred in the name of language, geography,

above all, God.

If we have learned anything from repeated "legal separation," it would be that there is no such thing as a final, absolutely irreversible parting of ways. The political map of South Asia has altered too many times to justify any such notion of finality, and famous After all the recriminations, the virtues of peaceful coexistence are undeniable. The West learned this lesson after forty costly years of the arms race and the Cold War, not to mention the thirty year war, the hundred year war, the

The divisions and rivalries of Asia, especially South Asia, are largely the by-product of this very Occidental view of the world "as it should be." From the

Napoleonic wars and two World Wars of

European extraction.

ideology, economics, politics and Suez to the South Pacific, this panoramic canvas was painted by eighteenth century imperialism, and is periodically touched up and restored, by the masters of geopolitical landscape painting.

> Western civilisation was at the helm of history. To preserve this artistic international order, and ostensibly in from the heart of Western culture. Proxy wars were stage managed on a grand scale, like Medieval passion plays, and native blood spilt in the backwaters of Eastern Europe, and the paddy fields of Southeast Asia, every drop in the defence of Western "liberal" democracy.

As a direct consequence of colonial chauvinism, entire populations were displaced, transported and marginalised, calmly disregarding tribal, ethnic

and religious objections, resulting in conflict and racial tensions to this day: Protestants were dumped in Ireland, Tamils brought to Sri Lanka, Indians to the Pacific and East Africa, and Africans to the Americas.

Of course, Australia and America were once upon a time exclusively nonwhite, a fact which in view of subsefailed relationships, are invariably the interests of world peace, conflicts quent history, is more often than not, miscarriages of "arranged marriages." were confined, as much as possible, far conveniently obscured, or simply than by all the suicide bombers and all Chechnya and Kashmir, relative peace nents was possibly history's cruellest and most extensive genocide yet. They were never colonised, "civilised" and cleaned up to resemble discoloured Europeans, like the brown Sahibs of the Sub-Continent. Though, in a macabre prelude to Dr. Mangle, both races suffered their lost generation of stolen children, who were used as human guinea pigs, presumably for their own good. For years, these obscenities were

never talked about, nor indeed even acknowledged as crimes, to the extent that today, Australia's absurd "history wars" are a testament to the invaders' contempt, and truly criminal intellectual amnesia. By and large, the natives were simply exterminated, or penned in remote reservations.

In our century, more Jews were butchered by Europeans in Europe ignored. The theft of these two conti- the Arab-Israeli wars put together. In our half-century, more Muslims and Hindus have happily hacked each other from limb to limb, than all the infidels and all the faithful, in two hundred years of the Crusades. And I don't suppose anyone has even the remotest idea, how many slaves, bought and sold for thousands of years, have perished from starvation, pestilence and ill treatment, since civilisation first discovered cheap labour!

This has been the evolution of the dominant species, brother against brother, in impassioned intolerance. Since the end of the last Great War, there have been countless conflicts, in China, Cambodia, Korea, Vietnam, Africa, Latin America, the Middle East, and what was once, greater India. Today, with the exception of Iraq and Afghanistan, and to some extent prevails. With the West in decline, for a host of reasons of its own undoing, and hopefully less predisposed to intimidate, it is not unreasonable to expect that the twenty first century might usher fresh hope for an Asian reawak-

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