

## Cross-border Pollution

# A growing international problem



PHOTO COURTESY: BRUNO D. RODRIGUEZ

Pollution pathway: Air

MD. ABU SAYED

CROSS-BORDER pollution is the pollution that originates in one country but can cause damage in another country's environment, by crossing borders through pathways like water or air. Pollution can be transported across hundreds and even thousands of kilometers.

Wind and water don't respect national boundaries. One country's pollution quickly can, and often does, become another country's environmental and economic crisis. One of the problems with cross-border pollution is that, the process can carry pollution away from a heavy emitter and deposit it onto a nation whose emissions are relatively low. It is fact that the heavy pollution that is evident in the developed world also becomes evident in remote areas of neighboring countries. And because the problem originates in another country, solving it becomes a matter of diplomacy and international relations.

In recent years, cross-border pollution is a common phenomenon in Asia. Here, cross-border pollution from the People's Republic of China, one of the biggest

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economies in the continent, is causing serious environmental problems for other smaller states like Japan, South Korea and other neighboring countries. The Chinese are currently expanding their economy by putting the environment at great stake.

South Korea and Japan complain that acid rain that falls on them is created by emissions of sulfur and nitrogen oxides from coal-burning plants in northern China. They also complain that the winds that carry the sulfur and nitrogen oxides also pick up heavy metals and carcinogens and dump them in their countries. Deaths attributed to yellow-sand-caused cardiovascular and respiratory diseases have been reported in South Korea. Even schools in southern Japan and South Korea had been compelled to suspend activities owing to toxic chemical smog produced from China's

factories and sand or dust storms from across the Gobi Desert.

The famous ice trees (juhyo) along with their supporting ecosystem and the tourism that they encourage in Japan are under great threat from the acidic influence of the sulfur that is produced at factories in China's Shanxi province and carried by the wind across the Sea of Japan.

Eroded soil from China's over-grazed and deforested north-central plains adds dust to storms that originate in Mongolia. The relentless drive of deforestation has increased the effect of the chemical smog all the more. That smog aggravates a wide range of health problems, including asthma, bronchitis and cardiac illness.

In Hong Kong, many suspect the city's near-constant haze originates in the heavily industrialised Pearl River Delta region of southern China.

Recent reports also say pollution is threatening Hong Kong's mangrove trees and the air quality is exceptionally terrible.

An explosion at a Chinese chemical plant in the northeastern part of the country had spilled 100 tons of cancer-causing benzene into Songhua River in late 2005, contaminating drinking water in a number of Russian cities located downstream. The spill of toxic chemicals poisoned the Songhua River, which provides drinking water to millions of people in China and Russia. The nearby city of Harbin was forced to shut off its water supplies to 3.8 million people for about a week shortly after the spill, and several other cities downstream from the spill also cut their water supplies as toxic chemicals reached them.

Now the cross-border pollution is a serious global issue. China is not alone as it struggles to find a workable balance between economic growth and environmental sustainability. Japan too caused severe air and water pollution in the period just after the Second World War by trying to make economic progress, although the situation has improved since the 1970s when environmental regulations were imposed. Across the Pacific, the United States also committed the same crime by polluting other's skies and water.

Pollution in Asia could affect air quality worldwide. Despite these efforts, environmental degradation in China and other developing countries in Asia -- including the problem of cross-border pollution -- is likely to get worse before it gets better.

Pollution in one country can have serious environmental consequences in other countries. In 2007, governments of China, Japan and South Korea decided to have a common look at the problem. The goal is for Asian nations to develop a treaty on cross-border air pollution similar to agreements among nations in Europe and North America, but progress is slow and the inevitable political finger-pointing slows it even more.

Canada and the United States's latest plan to curtail cross-border air pollution caused launching of three major projects designed to coordinate air

quality management to reduce smog conditions that plague both countries. The announcement was made on June 23, 2003, under the Border Air Quality Strategy. The Strategy is designed to build on the success of the 1991 Canada-United States Air Quality Agreement, which established a framework for collaboration on science and emission reduction in both countries. The countries already have agreements on acid rain, ground-level ozone and scientific co-operation.

Moreover, the U.S. Senate Environment and Public Works Committee has passed legislation that would require vehicles passing daily into the United States from Mexico to meet state emission control standards. According to the law, California is to control the pollution to all of the states, to avoid harming of the people who live in the states. It is found that 7,000 vehicles registered in Mexico are driven to the US on a daily basis, producing up to 14% of the region's total pollution. California law currently requires vehicles registered outside of the United States that commute to the US on a daily basis, to meet California emission standards.

According to Toshimasa Ohohara, head of air pollution monitoring research at Japan's National Institute for Environmental Study, emissions of nitrogen oxide, a greenhouse gas that is the primary cause of urban smog are expected to increase 2.3 times in China and 1.4 times in East Asia by 2020 if China and other nations do nothing to curb them.

Cross-border pollution should be solved by strengthening common border countries' cooperation. To tackle the problem, we should focus on the causes and design solutions accordingly. To ensure an echo-friendly healthy living world, the respective governments can take initiative to reach some agreements between or among the nations lying on same border to reduce cross-border air or water pollution that creates hazard for environment as well as human health. There should be emphasis on how the air quality in common border countries can be improved; setting up monitoring systems, restricting the number of factories and controlling the industrial emission of pollutants can all be included in the agreements. To reduce cross-border pollution in South Asia, agreements can be signed among the SAARC countries, which are enjoying common border.

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## Natural Disasters

# Saving lives is amazingly simple

ERIK SOLHEIM

THE past year has seen a long series of natural disasters: the floods in Pakistan, the earthquake in Haiti, the forest fires in Russia. More international relief operations were carried out in 2010 than ever before. The international community has spent huge sums of money on emergency relief. The recipe is simple.

First, some figures: 3.3 million people died as a result of natural disasters from 1970 to 2010. The property damage during the same period is estimated to be \$2,300 billion. These figures say nothing about the untold suffering caused by these disasters. There is little indication that the situation will improve.

The climate changes we are experiencing today are increasing the risk of natural disasters such as flooding, earthquakes and drought. In addition, the populations of big cities in high-risk zones for tropical storms and/or earthquakes are rising. In 2000 there were some 680 million people living in such exposed areas. By 2050 this figure will be 1.5 billion.

These are not my figures. They are from a new World Bank report, Natural Hazards, UnNatural Disasters (<http://www.gfdr.org/gfdr/NHUD-home#NHUD>), which looks at disasters primarily through an economic lens. How can we reduce the material damage caused by natural disasters, and thereby also the human suffering? The conclusions reflect the complexity of the problem, but the solution is simple: prevention, prevention, prevention!

Such findings rarely make the headlines, of course. The media do not tend to report such information until a disaster strikes. The emergency relief organisations are also most active -- both in the field and in the media -- once the disaster has occurred. But often, the measures required to make a country less vulnerable to natural disasters are quite simple. Moreover, according to the report the returns are high.

### Amazingly simple measures

I can give you some examples. Many national meteorological and hydrological services in Asia and Africa have far too little resources. They lack both qualified personnel and equipment and are unable to make sufficiently accurate forecasts of storms, flooding or tsunamis. Thus, millions of people miss out on information that could make it possible

for them to make it to safety in time.

According to the World Bank report, meteorological services in Mozambique were estimated to have a benefit-cost ratio of 70. A similar estimate in China from 1994-96 found a benefit-cost ratio of between 35 and 40.

### Poor governance responsible for deaths

It is not only the forces of nature that determine the scale of a disaster. Poor governance can exacerbate the consequences. I recently visited Haiti to take a closer look at the progress of the reconstruction efforts since the earthquake last year. The country has always been extremely poorly prepared, for example, for the cyclone and hurricane season. This is in sharp contrast to neighbouring Cuba, where political planning has helped to minimise property damage and human suffering.

Burma is another example. When the tropical storms begin in earnest, it is only the power elite who are safe. Although neighbouring Bangladesh is no richer than Burma, its people are better protected. Bangladesh has taken the problem of cyclone preparedness seriously. For example, cyclone-proof public buildings are being erected where the people can seek shelter.

Thus, the key is political planning, as some have realised. But we still have a long way to go. Today approximately 20% of all humanitarian aid goes to immediate disaster relief and response. This percentage could have been much lower. But then it is not enough to spend less than 1% of official development assistance funds on prevention measures, as is the case today.

Here each country and international organisations such as the UN and the World Bank must shoulder their share of the burden. We must shift the focus of humanitarian aid from immediate relief and response to risk reduction and preparedness.

Norway has already begun. Almost 10% of our humanitarian aid is used for prevention measures. This is not being done in the hope of favourable media coverage, but solely because such measures work. Preparedness saves lives and protects physical assets. Or as the proverb goes: It's better to be prepared than swift afterwards.

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The writer is Norwegian Minister for Environment and International Development.



PHOTO COURTESY: NATIONAL GEOGRAPHIC

The border between Haiti (left) and the Dominican Republic (right) shows that the institutions of society and political governance can influence a country's vulnerability to natural disasters. The Dominicans have managed to preserve large parts of their forests, while on the Haitian side of the border, poverty and want have led to deforestation, which increases the risk of flooding and landslides.

<b>Government of the People's Republic of Bangladesh</b> Department of Architecture Ministry of Housing and Public Works Sthapatya Bhaban, Segunbagicha, Dhaka-1000			
<b>Invitation for Tenders</b>			
01.	Ministry/Division	Department of Architecture	
02.	Procuring entity name	Chief Architect, Department of Architecture	
03.	Procuring entity code	None	
04.	Procuring entity district	Dhaka	
05.	Invitation for tender	Supplying Brand New Jeep	
06.	Invitation Ref. No.	সাহা-১১৫/২০০৩/৪৯১/স্থাপত্য	
07.	Date	15-02-1011	
<b>KEY INFORMATION</b>			
08.	Procurement method	Open tendering method (National)	
<b>FUNDING INFORMATION</b>			
09.	Budget and source of funds	GOB	
10.	Development partners	Not applicable	
<b>PARTICULAR INFORMATION</b>			
11.	Project/programme code	Not applicable	
12.	Project/programme name	Not applicable	
13.	Tender package No.	01/2010-11 financial year	
14.	Tender package name	Supplying of Brand New Jeep	
15.	Time for completion of the work	28 days	
16.	Tender last selling date	09-03-2011 up to 4:00pm	
17.	Tender closing date and time	10-03-2011 up to 12:00 noon	
18.	Tender opening date and time	10-03-2011 at 2:30pm	
19.	Name & address of the office(s)	Department of Architecture, Sthapatya, Bhaban, Segunbagicha, Dhaka-1000	
20.	Selling tender document	Department of Architecture, Sthapatya Bhaban, Segunbagicha, Dhaka-1000	
	Receiving tender document	Office of the undersigned	
	Opening tender document	Deputy Chief Architect, Co-ordination Circle, Department of Architecture, Sthapatya Bhaban, Segunbagicha, Dhaka.	
21.	Place/date/time of pre-tender meeting none (optional)		
<b>INFORMATION FOR TENDERER</b>			
22.	Eligibility of tenderer	Tenderer will have legal, financial, professional and technical capacity to deliver the requirements of this tender and have fulfilled the obligations of all tax requirements. Tender must have up-to-date VAT registration, trade licence, Income Tax clearance certificate and reputed suppliers/firms who have minimum 5 years of general experience in supply and related works	
23.	Brief description of goods	Supplying of brand new car in tender documents	
24.	Brief description of related services	Supplying of goods	
25.	Price of tender document (Tk)	Tk 1000.00 (non-refundable)	
26.	Identification of package	Location	Supplying time in weeks/months
	Package-1: Supply of Brand New Jeep 01 (one)	Dhaka	1,75,000/- 28 days
<b>PROCURING ENTITY DETAILS</b>			
27.	Name of official inviting tender	Alpana Chakma	
28.	Designation of official inviting tender	Deputy Chief Architect	
29.	Address of the official inviting tender	Department of Architecture, Sthapatya Bhaban, Segunbagicha, Dhaka	
30.	Contact details of official inviting tender	Telephone: 9555253	
31.	The procuring entity reserves the right to accept or reject all tenders.		
<b>Alpana Chakma</b> Deputy Chief Architect Co-Ordination Circle and Convenor Tender Evaluation Committee Department of Architecture Segunbagicha, Dhaka Telephone: 9555253			
GD-840			