

A Metropolis in Misery

Unplanned urbanisation, faulty traffic system, inadequate environmental regulations, poor municipal services, irresponsible civic behaviour have contributed to making Dhaka one of the most polluted cities in the world, writes Bakhtiar Rana



Irresponsible behaviour: Causing a road block.

— Star photo

ONCE Dhaka attracted tourists from across the continent, not because it had any living or exotic wonders, nor because it was off the beaten track with boundless opportunities. Tucked away quietly at the country's heartland, this old city was then surrounded by rivers and canals on one side and lush green paddy fields on the other. There were innumerable trees all over the places. And the city was conveniently located to reach from any part of the country — thanks to its wonderful riverine route.

The Portuguese, the Arabs, the Mughals and, finally, the British, whether on religious missions or on colonial ventures or trading expeditions, came and settled here for whatever period they could. They probably liked the place and enjoyed its natural ambience.

But it is a different story today. Dhaka is no more that little, quiet city. Over the years, it has grown — or probably overgrown — to a potential level of being called a megacity.

As Dhaka kept expanding horizontally — and, of late, vertically — with its population bulging by the day, it started to shed its once attractive natural bounties like fresh air, sprawling woodlands and lively, fresh water rivers. All its greenery has given way to concrete structures of shops, markets, housing and office blocks and roads and avenues, and all other conceivable urban utilities.

The natural environment in and around Dhaka has changed rapidly over the years. The greatest effect has been the fast growth of population that fuelled an accompanied increase in the number of houses and vehicles, not to speak of the related utilities.

This metamorphosis of the city has been very fast in recent years, particularly since Bangladesh emerged as an independent state in 1971 and Dhaka became the capital as well as the country's administrative, economic, business and industrial hub. The biggest fallout of this sudden expansion of the city and galloping rise in its population resulted in a forceful overpowering of the city's natural resources, particularly the air.

The air over Dhaka today is one of the most polluted in the world. By midday, the sky over this city is virtually blanketed by a thick layer of black smoke directly affecting the health of its residents as well as its natural environment. Air pollution in the metropolis has taken a grave turn with the motorised vehicular traffic becoming thicker everyday.

It has been assessed that vehicle exhausts are the major cause of air pollution in the city. Several studies have con-

cluded that many vehicles operate upon partial burning of gasoline leading to emission of harmful gases like carbon oxides, sulphur oxides and other toxic components of which lead is the most dangerous.

The worst polluters are the three-wheeler scooters or baby taxis, as they are commonly called. These motorised vehicles run with two-stroke engines are notorious for emitting black smoke from burnt fuel.

Not only that. The operators of these auto-rickshaws, as they are sometimes called, have an erroneous belief that mixing lubricant oil with the gasoline would give them a better mileage. This makes the situation worse as the smoke generated from such mangle becomes highly choking and deadly. There are more than 35,000 auto-rickshaws and tempos (extended form of such three-wheelers to carry more passengers).

Added to this has been the growing number of faulty vehicles plying the city streets. It is estimated that more than fifty per cent of the 2,000 buses and minibuses plying in the city are technically flawed and thus contribute a lot to emission of hazardous black smoke and deadly gases into the air.

Due to negligence of authorities, or often due to the corruption of some traffic regulatory

officials, these faulty vehicles go around scot-free. Though trucks are not in great number, quite a significant number of them are also at fault, lacking proper mechanical conditions. All these contribute towards degradation of the air quality in Dhaka city.

But still, the number of vehicles in Dhaka is comparatively much less in relation to the number of people living here. But the primary source of air pollution in the city is the emission of black smoke from the motorised vehicles as well as the undesirable gases and suspended particles coming out from these.

While bad or lack of maintenance of these vehicles is a major factor, another significant reason is the use of highly leaded gasoline. It has been found that the lead content in the air over Dhaka is among the highest in the world. Several academic investigations assumed that the lead content in Dhaka's air is much higher than that in Bombay or Mexico City — two places often dubbed 'cities of pollution'.

The situation becomes grave during dry season. Lead is a dangerous chemical metal, which poses a direct threat to health, particularly those of children and sick people. Fine particles of lead can cause blood

toxicity and mental retardation among children. It can also cause respiratory diseases and damage to lungs.

Children are more susceptible to health damage caused by the presence of lead in air. Studies have found that lead content in the blood of children exposed to open air in and around the city is 20 micrograms per decilitre, which is supposedly a high mark to destroy several cells in their brain. As a result those children do not have a healthy growth and they tend to lose their memory at an early age.

However, a particular reason for the bad quality of air in Dhaka caused by vehicular emissions is the city's notorious traffic jams. In fact, traffic congestion is one of the main causes for accumulation of bad quality air.

While the city has grown in terms of population and size, its road facilities have not been developed at the same pace. So, when the roads and streets are not capable of ensuring a free flow of vehicles, there are traffic jams with the resultant effects of concentrated vehicular emissions. The city's poor and inefficient traffic management and inadequate road network thus add to the dismal scenario.

The problem of vehicular emissions apart, there are a number of other factors significantly contributing to the wors-

ening of air quality here. These include industrial emissions, brick-burning, bad civic practices and poor municipal services.

It is recognised that industrial establishments should not be allowed within close proximity of human habitation. But Dhaka is probably an exception in this regard. There are huge industrial complexes right at the heart of this city.

More troublesome is the fact that most of these industries are producing various consumer products using different chemicals and that their effluents and wastes are being directly drained into the peripheral sewerage system or on the open ground nearby. The emissions of smoke and gases from these factories are also adding to the emissions from the vehicles.

The civic practices of the people living in Dhaka are also to blame for the worsening air quality. Besides throwing garbage and wastes here and there, many citizens are seen using the sidewalks as public urinals. Without sufficient public toilet facilities, people are often forced to do that; thus adding to the degradation of air quality.

Clogged drains and spilling sewage are common sights in Dhaka city. Bad planning and carelessness of the municipal

authorities and those others concerned are mainly responsible for creating such nuisance. Gases coming out of these wastes pollute the air in significant proportion.

Increasing air pollution in Dhaka is indeed a matter that should be addressed to seriously. All such polluting agents are making the air over this metropolis germ-laden, and thus slow poisoning the lives of tens of thousands of people living in the city.

It is not only the health cost that is going to be enormous and burdensome on the national exchequer but the potential working ability of people lost due to poor health conditions should also be taken into account. All this is a matter of serious concern for all of us.

Though the World Bank, the UNDP and many national organisations like the Department of Environment and several NGOs have already come up with serious thoughts on ensuring a better air quality over Dhaka city, the problem needs to be addressed on an urgent basis.

Says Environment and Forest Secretary Syed Marghubur Murshed, "We have been trying to address certain issues for the last one year." He lists the issues as banning the use of leaded petrol and making lead-free petrol available, initiating catalytic converters in all new petrol driven vehicles, introducing filters in diesel driven vehicles, phasing out two stroke engines, encouraging the import of buses and other motor vehicles using CNG (Compressed Natural Gas) that is plentifully available in Bangladesh through the introduction of preferential tariff and other fiscal measures. The sooner these initiatives yield results the better for the people of the polluted cities.

We have to remember that fresh air is a primary human right. The development of civilisation with the outflows of technological innovations to meet human needs will go on. But a basic resource for human survival like air cannot be spoiled. What is needed to match these two aspects is a proper management of our actions to ensure good quality air conducive to the sustenance of human living. On the one hand, we have to create public awareness, on the other hand, we have to ensure that rules and regulations are enforced in right earnest to save our air from further pollution.

Let us remember that fresh air is one of the most indispensable gifts of nature without which humankind will not survive.

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Conserving Natural Resources Sustainable Exploitation

by D Shahriar Kabir

THE concept of sustained yield relies on deterministic demographic models that are not realised in nature. Sustainable use of natural resource implies maintaining the production of goods and services, from that system, over time. In this way, present day needs are met without foreclosing options for meeting future needs. Therefore, the possible solution is — not to use the maximum sustainable yield (MSY), but to reduce the yield to a much lower level far below MSY in order to compensate for expected and unexpected variations in abundance.

The exploitation of species therefore should ensure this low level of utilisation, but if this increases beyond certain point, it will also constitute a threat. Dixon and Sherman (1990) showed that collecting certain plants, gathering firewood, and hunting wild animals may be tolerable at the low levels in the certain areas of a natural reserve. If utilised beyond the capacity of the resource to replenish itself it will endanger the long term viability of the resources. If a level of use can be set that would not damage the resource, the benefits to the local residents are often very important social consideration for setting up resource conservation strategies.

The Mataba national park in Zimbabwe, is an example for conservation although the harvesting of thatching grass within the park is permitted. As reported by Child (1984), the annual harvest quota of 40,000 to 115,000 bundles, worth at least 50 cents each, represents an income of \$200 to \$600 for each villager involved for six weeks of work per year. The park receives payment for every bundle cut and uses its share to maintain the park facilities. This programme resulted in increased income to the local population through the conservation of exploited grass species and sustainable use of the grass and fewer management problems are anticipated from human encroachment. Therefore, conservation efforts might be made relatively a success by arresting the local social reality.

The global experience indicates that the exploitation of species by consumptive use tends towards extinction of species, and extinction is not simply death — it is an end of birth. So, extinction is forever. The consumptive use i.e. human activities inside the natural reserve are responsible for losing species and increasing the rate of extinction. The main reasons for extinction are: destruc-

tion of habitat for both subsistence and commercial extraction of resources, killing of wildlife for luxury goods, we could probably do without. The data reveals more than 50 species of mammals have disappeared and over 600 are currently endangered in this century alone. More specifically, tiger and vicunas are on the verge of extinction. It's a fact, and also shame, for us that the tiger's skin coats and vicuna's cloth are still on sale in famous world shopping centres — to hunt for their tusks and bones. These big mammals could disappear from many areas to satisfy people's desire for ivory ornaments, piano keys, billiard balls and trinkets. These are few examples of consumptive use of exploited species in natural reserves.

The conservation of a single species is not a feasible option. An ecosystem approach to conservation of single and multiple species with allowable minimum exploitation may be more efficient over the species approach. In situ conservation of ecosystems permits natural communities to continue to evolve through extinction and emergence of new species. Ultimately, this ensures that a maximum number of species can be conserved.

Moreover, this approach conserves both known and unknown species. Inevitably, preference will be given to conserving known and exploited species by consumptive use by human kind. Subsequently, this type of nature conservation projects need local support for planning, managing and conserving resources.

Clark (1985) has constructed a simple mathematical model for commercial exploitation of natural animal populations. The model supports the idea of conservation of natural resources — i.e. sustainable by the consumptive use of exploited species. Because the model takes into account the response of the population to harvesting pressure, the preference of harvesters will be for the present over future revenue. Another simple outline for exploiting the species (population) at the same rate as it is increasing — i.e. a population increasing at 20 per cent per year can be harvested at around 20 per cent per year.

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Trafficking and HIV/AIDS Vulnerability

by Habiba Tasneem

On every World AIDS Day celebration the government, NGOs, donors and even private sector representation renew their pledge and solidarity to work for HIV/AIDS prevention and care. But all the enthusiasm feters out after the day-long, week-long and month-long befitting celebrations of the event. And everything settles down to an uncomfortable apathy till the next World AIDS Day.

cal in nature than having socio-economic and cultural impact. In this context the north-west and western part of the country has a more complementary climate for undocumented migration and free movement of population through the borders.

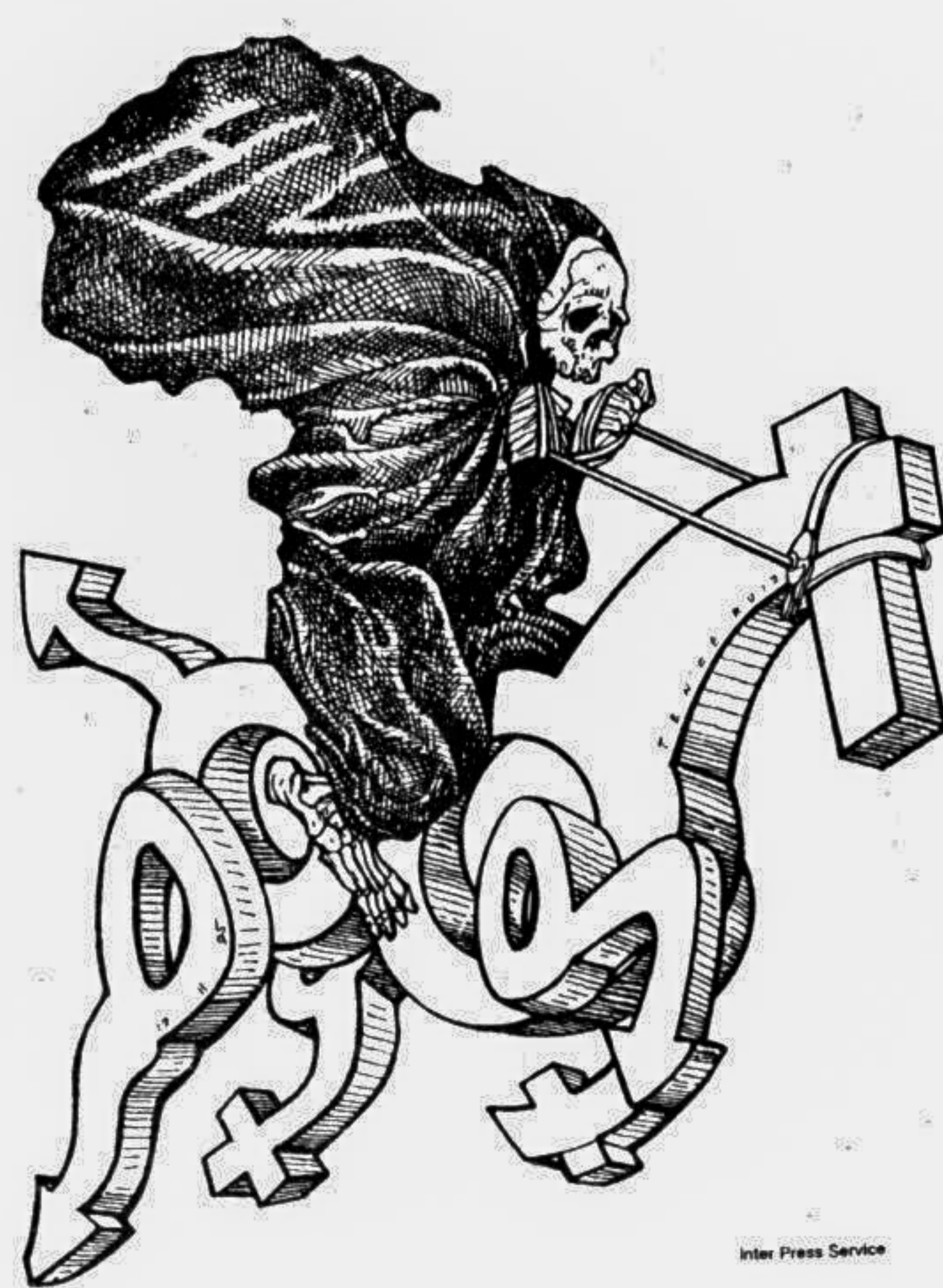
To understand the psychology of trafficking and coerced migration it is important to be sensitive to the social causes that determine the modality of transporting women. As a case in point we take the village of Binodpur in Shibgonj Thana of Chapai Nawabganj. It is a remote border village where population movement across the border is an accepted and regular part of life. The Association for Community Development (ACD), a local grassroots community-based organisation, has been actively working on the issue of trafficking and its consequences for several years now. With the financial and technical assistance support from HIV/AIDS and STD Alliance Bangladesh (HASAB) the programme has expanded to the issues of women's socio-economic empowerment as a means to preventing sexually transmitted diseases, HIV and violence.

Poverty the omni-present basis for practices of human rights violation has aggravated the situation to such an extent that almost 36 per cent of the families were affected by coerced migration extending to trafficking. The spectrum of problems that the baseline needs assessment of the community revealed are:

Male domination, violence and exploitation; Early marriage and verbal divorce; Low literacy rate and unemployment;

Lack of health services facilities; Lack of institutional and local government support against trafficking, on marriage registration and legal aids; and Overwhelming ignorance about STD/HIV/AIDS.

All these factors have led to a new mode of coerced migration and trafficking — through marriage. Generally young women and their families from non-industrial and land less poor rural population are victims who are trapped in the web of lure for a better life through marriage. And in case of this particular locality the promise of a better life after marriage seems more appealing as the grooms appear from across the border with money to spend on a prospective bride's family. These men belong to the Muslim communities of Delhi-Agra-Firozabad area of India. They travel to the border villages like Binodpur to buy brides. The parents of these women are often ignorant about the destiny that awaits their daughter or choose to ignore it because of the money and because they are eventually able to give the daughter away in marriage and save the women and themselves from social stigma. The women are used as cheap labourers in the bangle factories of Firozabad. Some of these men are just paid agents who hand the women (their bride) to the real owner up on crossing the border. While others are owners themselves who take as many brides as they want. Sometimes these brides themselves are later used as marriage agents. These women appear on behalf of the prospective groom to select the



bride, pay the bride's family and bring the bride to be with them to India under the guise of marrying her off. The male counterpart of these women agents force them into the business by keeping their children hostage.

The question then arises: why do these people travel 2000 km to buy brides here?

The answer: It is easy to buy brides here without question: The brides can be employed at minimal wages in the bangle factories.

Because of alien environment and no support or protecting mechanism they can be exploited in any manner. These men cannot take more than one bride from their own community

The bride's family cannot trace them.

Therefore the So-called Brides Become Bonded Slaves

So what is life like for some of these women? A few who have managed to escape and land up in their village have horror stories to tell. Rape and sexual and physical violence becomes a norm for them from the day they are married to the man. It starts with the husband and in quick succession moves from the agents to border security forces on both sides and to anybody willing to pay the groom who is her pimp and of course there is the entertainment part of gang rape. On top

of it all the women toil hard in the factories but all their earnings go to their husband (owner). If they decline to part with the money they are beaten and thrown out on the street where other men are waiting to take over. And then eventually these women are either sold or find their way to one of the innumerable brothels in India. Most of them show manifestations of STD but do not receive any treatment. The question of condom does not arise as mostly they are raped.

For those who managed to return, life is a perpetual challenge to be accepted back in the family and community. Instead of bringing money she herself becomes another mouth to be fed. And in many instances, unable to face the reality of rejection back home she moves out again into the streets of her own country. But is the scenario in the streets of her homeland any different from that which she experienced across the border? With the incidences of rape significantly on the rise, police violence, indiscriminate arrests and lock up without trial, little opportunity of employment, increase in the number of floating sex workers and the cases of STD amongst them, it certainly does not give an encouraging picture.

Therefore, HASAB promotes community based participatory intervention to address the multi-dimensional aspects of HIV/AIDS in a resource poor country like Bangladesh. ACD's approach to reduce the vulnerability of young women in Binodpur through knowledge, attitude and practice is at different levels simultaneously:

Direct with primary target — the young women, educating them about their rights, their socio-economic position, health issues, reproductive and sexual health, STD and HIV vulnerability and facts about: coerced migration and trafficking.

Direct with the power structure and decision makers educating them about the implications of trafficking, health-related issues, exposure to risk generating behaviour.

Direct/indirect for policy issues leading to legislation and legal support.

The intervention has made the implementers intelligent about the fact that awareness and education by itself cannot bring the desired change in individual and collective behaviour. Social changes to prevent trafficking in a community like Binodpur requires:

Empowering women to protect themselves against HIV/AIDS through economic emancipation, education and changes in their social position.

Rights to self-determination and collective strength as a powerful tool to stop trafficking and prevent spread of HIV/AIDS.

Infrastructure for providing healthcare services.

Extensive and intensive support net in terms of legislation, legal aids and related social amenities.

Preventing HIV/AIDS in an environment besieged with poverty, trafficking and low infra-structural support presents perennial challenges. On every World AIDS Day celebration the government, NGOs, donors and even private sector representation renew their pledge and solidarity to work for HIV/AIDS prevention and care. But all the enthusiasm feters out after the day-long, week-long and month-long befitting celebrations of the event. And everything settles down to an uncomfortable apathy till the next World AIDS Day. But on this the last World AIDS Day of the millennium it is critical that we examine the status in the light of the rapid expansion of HIV epidemic in the South Asian region and pragmatically try to address the contributing factors.

In the case of trafficking the bottom line is mutually beneficial and stringent policy and legislation that is well co-ordinated and monitored between the sending and receiving countries. Until and unless governments get seriously involved there is no way that trafficking can be checked. And the resulting impact of it on the effort for prevention a futile exercise.

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TOM & JERRY



By Hanna-Barbera

