

# Conservation failure dooms wildlife

MD. ASADULLAH KHAN

DESPITE the fact that member nations attending the Rio Summit in 1992 pledged to take action against such perils as global warming and destruction of wildlife, the world's rich nations hardly followed up on their rhetoric. Precisely speaking, the hope and sense of purpose that surrounded Rio have been tempered by disappointment and disillusionment. International bureaucracies charged with carrying out the Rio agreements have been grinding along at a painfully slow pace. The second convention signed in Rio emphasized the need to stem the loss of biodiversity, the irreplaceable variety of animal and plant life around the globe. Every year 20,000 species become extinct, largely because humanity is destroying their habitats. The agreement calls on countries to identify endangered species and preserve the places where they live. On the theory that developing nations will protect forests and other wild areas if they have a financial incentive to do so, the Convention underscored that when a company would go for manufacturing a medicine or other commercial product out of ingredients from a rare plant or animal, it should share the proceeds with the nation where the discovery was made. Shockingly, the convention has miserably failed to stop the inexorable advance of logging companies, settlers and land speculators who are chopping down or torching tropical forests before all their biological treasures are discovered.

However frenetically we get and spend, an attachment to natural life of the planet remains fixed in our system. It's so much so that one cannot think of a single composer, painter or writer who has not tracked at least one major inspiration to a bird, a tree, a rose. People automatically lose themselves in wordless reverence at the sight of a curlew or a silver cloud or at the mournful wail of howler monkeys. Everything connects: the hard animals with the soft, the tigers with the jellies, the trout with the fisherman. In the rain forest, the understory palm trees use branches growing out of their trunks to make baskets that become compost machines for falling leaves, which keep the trees alive. In the ecosystems of tropic, termites eat and digest cellulose, a major component of plant tissue; without the decay of cellulose, the system would die trapped in dead wood and stems. Hidden world connect to the things that hide them; within the bark of a redwood lies moss under which are toads and insects.

Despite the alarm sounded, destruction of forests and along with it wild life goes on unabated. It is in the tropics, however, that the battle

to preserve what scientists call biodiversity will be won or lost. Tropical forests cover only 7 per cent of the earth's surface but they house between 50 per cent and 80 per cent of planet's species. In the Asian region, huge swathes of species-rich forests have fallen to powerful plantation and logging interests many of them operating outside the law. Satellite imagery taken over Indonesia in 1997, for example, showed that 17 million hectares had been lost since 1985. Without a comprehensive protection programme, experts fear that invaluable lowland forests are likely to vanish from Sumatra within five years. Protected areas aren't always better off. Many national parks and designated wildlife sanctuaries are safe only on paper. A joint study by the World Bank and the World wide Fund for Nature found in the recent past that 1 per cent of such areas are safe from pollution and "various developments" including mining and tourism.

With the shrinking of forest areas from Asia to Africa to Europe, the prized wild life resource, tigers are fast disappearing. Outside protected areas, Asia's giant cats are now a vanishing breed, disappearing faster than any other large mammal with the possible exception of rhinoceros. Even inside the parks the tigers are succumbing to poaching and the relentless pressure of human population growth. No more than 5000 to 7500 of the majestic carnivores remain on the planet — a population decline of 95 per cent in this century. On the Bangladesh side of the Sunderbans the tiger population is estimated to be around 300 to 450. In the Sunderbans, as eye witness report reveals, tigers are hunted down by traps and baits laced with a deadly pesticide. Dead animals like goat, dog laced with pesticide are kept as prey on heaped up earth by the side of a pit filled with water. The tiger eats the dead animal and gets thirsty and gulps down water from the pit. The toxin effect in the tiger's body ultimately kills it. This dirty practice of poaching that does not bear a bullet mark in tiger's skin fetches larger price for the skin usually available in the market. Private investigating agency along with wildlife experts has uncovered a clandestine trade of Royal Bengal Tiger skin, body parts of tiger and even tiger cubs being operated by a gang in collusion with the forest officials and a section of law enforcement agency in Khulna and Dhaka.

Experts and enthusiastic activists in wild life preservation have warned that unless something dramatic is done to reverse the trend, tigers will be seen only in captivity, prowling in zoos, or performing in circuses. The wild tigers of old will be gone forever,

Researchers of biodiversity agree that if the current rate of habitat destruction were to continue in forests and coral reefs alone, half the species of plants and animals would be gone by the end of 21st century. Our descendants will inhabit a biologically impoverished and homogenized world. Not only would there be many fewer life forms, but also faunas and floras would look much the same over large parts of the world, with disaster species such as fire ants, house mice and termites widely spread.

their glory surviving merely in storybooks, on film and in dreams. Mentionably, China and Taiwan are the two countries where illicit trade in tiger and rhino parts is rampant. Despite warning to shutdown their illicit trade or face trade sanctions by the Geneva-based CITES, the convention in International Trade in

difficult to count with any precision, but fewer than 650 Sumatran tigers remain and may be 200 of Siberia's Amur, the world's largest cat. China has a few dozens left. India with an estimated 60 per cent of the world's tigers, perhaps as many as 3750 in 21 reserve forests is proving increasingly susceptible to preda-

cat. They believe that tiger bone potions cure rheumatism and enhance longevity. Whiskers are thought to contain potent poisons or provide strength. Pills made from tiger's purportedly calm convulsions. Affluent Taiwanese with flagging libidos pay as much as \$320.00 for a bowl of tiger pennies soup, thinking

As incomes rise in Asia people can afford to pay tens or hundreds of dollar for a dose of tiger-based medicines. And as the destruction of tigers decreases supply, the price of their body parts rises further, creating ever greater incentives for poachers to kill the remaining animals. Shockingly, the forces driving



The Royal Bengal Tiger: Magestic but endangered

Endangered species, this illegal trade has not come to a halt.

Tigers that once rambled across most of Asia, from Siberia in the north to Indonesia in the South to Turkey in the west are now confined to small shrinking pockets of their forest habitat. The Caspian subspecies became extinct more than two decades ago. So did the Balinese and Javan cats. The survivors are

scarcely more than a shadow of what makes the tiger so vulnerable to is its unshakeable grip on the human imagination. For millenniums tigers have prowled the minds of mankind either as god or as a source of healing power. Precisely speaking, tiger's mystique is its ticket to the bone yard. Practitioners of traditional Chinese medicine value almost every part of the royal

tiger, which can copulate several times an hour when females are in heat. A beautiful tiger skin may fetch as much as \$15,000 outside Bangladesh, although in Bangladesh, the price may be as low as Tk. 60,000.00 to Tk. 100,000.00 but the bones and other body parts generate even more money and they are much easier to smuggle and peddle.

the black market are so strong that nothing — not public opinion, not political pressure nor the power of law enforcement agency — has halted the tigers' slide toward extinction.

scale killing of tigers by poachers using different means has continued in China, India and even in the Sunderbans in Bangladesh side with a limited population. TRAFFIC,

an organisation that monitors the wildlife trade for the World Wildlife Fund uncovered a vast poaching network and with the help of Delhi Police they dug out 385 kg of tiger bones equivalent to 42 tigers and eight pelts. Perhaps none in Bangladesh has ever heard that a poacher or an illegal trader in either tiger skin or body parts or spotted deer has been arrested, leave alone facing any punishment. Even if some illicit trader was arrested, given the ease with which traffickers can manipulate either in India's, or Bangladesh's glacial judicial system where cases can drag on for decades, arrest is often only an inconvenience. Even in Assam, the tigers are hunted by members of the Bodo tribe who continue to stage a rebellion against the government. They trade tiger parts for guns and ammunitions to carry on their insurgency. As bad as the situation is in India, it is far worse in eastern Russia's Taiga. The Amur tigers that inhabit this 1285 kilometre long stretch of evergreen forests have almost disappeared because of indiscriminate hunting by the big shots. Understandably, reports of a cascade of troubling events now highlight the link between environmental problems and weakening economic and social structures in many countries including Bangladesh. The World Commission on Forests and Sustainable development said that in the past 20 years alone, forests have disappeared in 20 countries, and another 18 have lost more than 95 percent of their tree cover. Reliable reports say that just before World War II, there were an estimated 60 billion hectares of forest, now there are only 3.6 billion globally! And sure enough logging, indiscriminate cutting for firewood and desertification have caused this destruction. The Switzerland based World Conservation Union said that such forest decline, threatens 12.5 percent of the World's 2,70,000 species of plants and 75 percent of mammals. The International Organization for Migration added that the number of "environmental refugees" those who fled their homes because of depletion of natural resources was now at a record high of 25 million, mostly in Africa, Asia and parts of Eastern Europe.

Because of human invasion in the form of shrimp culture, mangrove forests in the Sunderbans in Bangladesh are being cut relentlessly at the expense of the wild life. This is evident from the fact that population of spotted deers, saltwater crocodile, the largest reptile in the world only found in the Coastal

Zone of the Sunderbans, are on the wane in the present disturbed habitat. Curiously enough, some opportunistic species of insects and birds like rats, mice, crow, flies, lizards, mosquitoes, cockroaches, ants and spiders might go on multiplying, in consequence of global warming resulting from deforestation. Other than meeting 15 percent of the country's timber and fire wood needs, Sunderbans, the only mangrove forest in the country, is home to an uncounted number of plants and animals. Experts have identified more than 300 species of birds, 400 species of fish, 53 species of reptiles and about 10 species of amphibians in this region covering 5,700 square kilometre area. Without contradiction, all over the world, wild animals have been replaced by developers, settlers and ranchers and threatened by poachers. Many can no longer survive in their native habitats and live only in zoos. Concerned that this means eventual extinction, wildlife experts, zookeepers and government officials in many countries are now trying to breed and monitor endangered species in protected areas for eventual reintroduction into the wild. Their aim is to replenish the dwindling species and restore the balance of nature but the effort has been a mixed success.

The principal cause of both extinction and evolution is the degrading and destruction of habitats by human action. Not all doomed species disappear immediately. Most first suffer loss of their ranges and gene pool to dangerously low levels, eventually descending to join what biologists call the "living dead". Now on an ominous march to extinction are the Javan rhinoceros, Philippine eagle, Hawaiian crow, Spix's macaw, and Chinese river dolphin. Other endangered species lined up for extinction are the giant panda, Sumatran rhinoceros and mountain gorilla. Researchers of biodiversity agree that if the current rate of habitat destruction were to continue in forests and coral reefs alone, half the species of plants and animals would be gone by the end of 21st century. Our descendants will inhabit a biologically impoverished and homogenized world. Not only would there be many fewer life forms, but also faunas and floras would look much the same over large parts of the world, with disaster species such as fire ants, house mice and termites widely spread.

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## UNEP launches new initiative

MOHIUDDIN BABAR,  
back from Prague

UNITED Nations Environment Programme (UNEP) has launched a new activity, dubbed as Life-Cycle Initiative, to encourage cleaner production processes and to combat environmental impact of rising consumption patterns. Launching the initiative at the 7<sup>th</sup> High Level International seminar on Cleaner Production in the Czech Republic capital of Prague recently, UNEP Executive Director Klaus Toepfer said it will help governments, businesses and consumers across the world to adopt more environment friendly policies, practices and life-styles.

As a complement to the ISO framework of standards and technical reports, the Life-Cycle Initiative will develop and disseminate practical tools for evaluating the opportunities, risks and trade-offs, associated with products and services over their whole life cycle. It will address problems such as finding alternatives to hazardous substances and products as well as prescribe improved systems of eco-labeling and product design.

The UNEP Executive Director mentioned that extraordinary growth in consumption accompanied the rise in population worldwide. He said that growing consumption demands of all people will have to be met but through new ways of thinking, conducive innovation and new business models keeping in view the best uses and preservation of earth's natural resources.

Referring to the fast changing consumption patterns, Toepfer told over 300 delegates from 85 countries at the meeting in Prague that the high, unsustainable consumption of the world's affluent consumers could have negative impact on the environment which was quite disproportionate to their numbers. He continued that in many ways, the consumption patterns of the rich were being

exported to and burdening the developing countries "Our challenge is to change the consumption practices in richer countries while at the same time bring new tools to the table, like the Life-Cycle Initiative, that will ultimately help tackle poverty and ensure a safe and secure environment for long term sustainable development."

The Life Cycle Initiative incorporates a management system which is an integrated framework of concepts, techniques and procedures to address environmental, economic, technological and social aspects of products and organisations to achieve continuous environmental improvement from a life cycle perspective.

Though consumption in the developed world had the bigger segment, it has been rising steadily in the developing countries. The new initiative will, therefore, have to have greater implementations in the developing countries.

Meanwhile, the global campaign for cleaner production received a further boost with more companies signing the International Declaration on Cleaner Production during a UNEP High level seminar in Prague. Several companies accredited themselves to the declaration which folds them to a commitment for continuous application of integrated environmental strategy to processes, products and services to increase efficiency and reduce risks to humans and the environment. Launched in Seoul, South Korea in 1998 under the auspices of UNEP, about 400 leading global enterprises have now signed the declaration.

The recommendations and outcomes of the UNEP seminar in Prague will have links to the key themes of the forthcoming World Summit for Sustainable Development in Johannesburg, South Africa.

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DR. REZA KHAN

LAST April I had occasion to conduct field trips to Cox's Bazar, Narikel Jinjira (St. Martin's) Island, Sunamganj, Tetulia, Banglabandah, Domer, Nilphamari and Panchagarh with a view to study the present conditions of biodiversity in parts of these areas. My first encounter was with the massive death of snails at Cox's Bazar (CB) beach. Just after crossing the southern end of the boundary of CB airport there was

terrible stinking smell from some rotting animals. That gave me first clue to the snails' deathbed. The rickshaw-puller told me that the whole beach was filled with 'leja'. This is the local name for a kind of snail that is being regularly used for making commercial calcium carbonate (Chuna) used with betel leaf, and as calcium supplement for preparing the fish meal and poultry feed.

It was nearly impossible to move further ahead without covering the nose with a handkerchief. At the end of the mtealled beach road left the rickshaw and slowly walked passed heaps of dead snails. Saw many people bargaining the price of each hessian bag full of dead snails. I gathered that a family of five collected as many as 12 bags of snails per day. The price of each bag varied from Taka 15 to 20. A bag contained roughly 30 kg of snails.

Then I looked at the beach. It was abysmal. The beach was virtually covered with a layer of dead snails. From the level of highest high tide to the edge of the ebb tide, and as far as I could see, towards the direction of Himchari in the south, there were snails and snails everywhere. Over two dozens of people, mostly women and children, were busy collecting snails with the help of rakes. At the tide zone they were making temporary heaps when some of the family members were transporting those to high ground, spreading the same for drying and heaping them again once those were dried up.

It seemed gathering and selling the dead snails was a matter of the several families from the hamlet at Charpara, officially known as Nazir Hat Tak or Sonarpara. Roughly 10 families were involved in the whole affair. Then there were middlemen

fixing the price and arranging transport. It came to light from the people around that those were transported by lorries at night and dispatched to factories at Chittagong and Dhaka for making fish and poultry feed.

At a first glance the snails appeared to belong to just one particular species. It was in a pure form having no other dead or living species of animals and plants along with it.

At the edge of the tide many snails, roughly 10 percent, appeared to be still alive although the massive death started around 5<sup>th</sup> April and continued up to 9<sup>th</sup> April and I was there on the 13<sup>th</sup>. Remaining snails were all dead; some still had muscles inside when others were completely devoid of any soft tissues.

The size of the snails ranged from 10 to 40mm and the number of whorls per snail varied from 6 to 12. Adults of this species could measure up to 60mm. Almost all shells were intact apparently showing no sign of physical injury. Living specimens looked dark brownish when dead and dried up ones were reddish brown. I tried to count the snails in a square of 5 centimeters. There turned out to be 52 snails per square from 5 such squares. This is unbelievably a massive concentration of dead snails in one particular area.

To me the species of the snail is Turritella maculata or Maculated Mud Snail. The most common species of mud snail is the T. acutangula that is the snail of the commerce and exploited in a very large scale from Kutubdia to Narikel Jinjira. In case of acutangula each whorl stands alone without any supporting ridge or rings. But in maculated snail each whorl is bordered in front and back by one separate or substitute ring or keel.

By and large, any animal or plant that dies near shore is pushed back to the beach by the actions of the current and waves. Some heavier material sank at the bottom of the sea. Now the question arises why in the world so many millions or billions of Maculated snails died within the limit of the sea opposite CB?

As far as I understand many experts have passed their opinions through the news media as follows:

-There was an under water earth

quake,  
-Adjustment of underground geological plates under the sea,  
-Erosion of underwater island,  
-Over breeding of the species,  
-Dumping of toxic wastes by pirate or alien ships,  
-Using dynamite to kill fish under water,  
-Algal bloom  
-Due to man-made pollutions,  
-Outbreak of disease, etc.

May be all the above opinions are right. But these have fail to answer one particular question, why was there such a massive death in such a short period over such a small area affecting only the juvenile stages of only one species of snail?

To me it seems that for some reasons these juveniles from a single bed of Maculated snails' niche/habitat had a kind of food poisoning that affected the nervous system of the snail. When I handled the live specimens and kept them overnight in my room I found that they were incapable of using their muscles properly. We know muscles are moved voluntarily with the help of nerves. For some reasons the nerves became paralysed or inactive. As a result the juvenile snails failed to remain lodged in their underwater habitat.

We know snails feed by rasping action of their special tooth-like structure called radula. They might be feeding on submerged plants or could be detritus feeder. In their underwater muddy/ sandy habitat they open their mouth use the radula and nibble or chew out a bit of vegetable matter.

My guess is that the food that they consumed had some toxic material in them that had disturbed the nervous system of the snail.

Only right conclusion to this effect can be drawn when the muscles or nerves of the samples taken by the Government Committee for the Snail Disaster are analysed and the chemicals found inside these are identified.

It has been proved beyond doubt that our government is absolutely incapable of handling such a biodiversity disaster. For this there could be hundreds of reasons, including not having proper scientific tools and gadgets to handle the disaster or proper manpower and/or both.

But the thing that worried me

most is the government's inability and inaction to handle the situation on the ground outright. For example, even up to the 18<sup>th</sup> April when I last visited the site government did not take any decision as to what should be done with the dead snail that were being continuously collected by the Charpara folks.

Why did not government put its law enforcing machinery on the spot and forbid members of the public from taking snails away from the site? Government machinery could

have cordoned off the entire beach area, allowed the people to collect and stack the snails under government custody with the clear direction that if the snails were found to be free from any diseases the collectors would be allowed to sell the snails.

Else government should have collected the entire stock with its own machinery, either destroyed it or stored it temporarily pending the

findings by the committee.

To me the greatest blunder so far is the indecision of the government and failure to act quickly as a result of which the dead snails have already reached factories producing poultry feed and fishmeal. Ultimately we the public will consume the fish and poultry fed with these shells.

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