Beleaguered bio-diversity



MD. ASADULLAH KHAN

S the Indian prophecy goes:

"Only after the last tree has been cut Only after the last river has been poisoned Only after the last fish has been caught

Only then you will find That money can not be eaten." The dire prophecy should

galvanise us into action-oriented programmes to tackle the problems relating to environment that we face today. We must remember that many past societies collapsed partly because of their failure to solve problems similar to those that we face now -- especially deforestation, water management, top soil loss, and climate change.

For more than 40 years, the earth has been sending distress signals. We have responded by holding seminars and passing environmental laws on Earth Day and World Environment Day. All the while, the decline of the earth's ecosystem has continued unabated.

Thomas Lovejoy of the Smithsonian Institute said: "Amazon is a library of the world's life sciences, the world's greatest pharmaceutical laboratory and flywheel of climate." Such may be said of the Sundarbans and the hill forests of Chittagong as well. Forests in our country or in Brazil are untapped storehouses of evolutionary achievement that will prove increasingly valuable to mankind as they yield their secrets.

However, biologists see biodiversity vanishing before their eyes because of deforestation, which has devastating effects on climate change and on natural processes upon which the earth's delicate balance depends.

Turning forests into isolated patches, logging, or setting fire to trees (as has happened in Brazil and Indonesia), threaten biodiversity. While covering only 6% of the earth's land surface, the world's forests are decreasing by 58,560 sq.miles each year. With other rich environments under similar assault, including coral reefs (two-thirds degraded) and salt marshes and mangrove swamps (half eliminated or radically altered), the extinction rate of species is rising everywhere.

Humanity's food supply comes from a narrow sliver of biodiversity. Throughout history, people have gathered or cultivated about 7,000 plant species for food. Today, only 20 species provide 90 % of the world's food, with maize, wheat and rice supplying more than half.

Natural pharmaceuticals offered by biodiversity are also underutilised. The biochemistry of the vast majority of species is an unfathomable reservoir of potentially more effective substances. These species have devised myriad ways to combat microbes and cancer causing runaway cells. As the enhancement of agriculture and medicine become the mainstay for

the survival of the exploding population in the world, there is hardly an alternative to conserving the forests. Furthermore, the biosphere gives us renewed soil, energy, clean water, and the very air we breathe, all free of charge. The more species that compose wild communities, the more stable and resilient the planet becomes as a whole.

The forest functions like a delicately balanced organism that recycles most of its nutrients and much of its moisture. Wisps of steam float as water evaporates off the upper leaves, cooling the trees as they collect the sunlight. Air currents over the forests gather this evaporation into clouds, which return the moisture to the system as rain. Dead animals and vegetation decompose quickly and the resulting nutrients move rapidly from the soil back to the growing plants. The forest is such an efficient recycler that virtually no decaying matter seeps into neighbouring rivers.

The rain forest is an almost self-sustaining system that thrives indefinitely. But when stripped of trees, the land becomes inhospitable. Most of the forest soil becomes nutrient-poor and ill-suited for agriculture. The rain forest or the mangrove forest has an uncanny capacity to flourish in soils that elsewhere would not even support weeds. Henry Ford tried twice to carve rubber empires out of the rain forest in

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1920 and 1930s. But when the protective canopy was cut down the rubber trees withered under the assault of sun, rain and pests. The story is the same here in our country.

Because of the huge volume of clouds it generates, the forest system plays a major role in the way the sun's heat is distributed around the globe. The Amazon alone stores about 75 billion tons of carbon in its trees. Since the air is already dangerously overburdened with carbon dioxide the destruction of either the Amazon or the Sundarbans could magnify the trapping of heat by atmospheric carbon dioxide.

The world needs lots of trees to store the carbon produced by a growing population and industrialisation. Forests are carbon dumps. Trees extract carbon dioxide from the atmosphere, emit the oxygen and store the carbon in their wood, leaves, roots and surrounding soil. Climate and rainfall make certain areas better suited than others to the creation and maintenance of large standing stores of carbon. It is only logical that the countries that control forest areas will begin to demand rent in one form or another for the service which they provide to the rest of the world.

Most people who live in and around forests are poor, and their population growth continues. Whether it is the Brazilian, Philippines, African, Indonesian or coastal zone of Bangladesh covering the Sundarbans, we must concede that most people actually carrying out the destruction are obeying the first rule of any living being -- to survive. To preserve an environment, whether it be wetland or forest, there must be an acceptable and rising level of economic well-being of the humans who live in and around it.

Environmentalism requires restraint. Poor people lack restraint. Without some economic surplus there will never be meaningful conservation. So economic progress or sustainable development in our part of the world is not an option that we can postpone at this crucial hour of our imperiled environment. A crash programme must be undertaken to raise the living standards of the people living in and around forests along with measures to check population growth. It has to be recognised that the preservation of the world's forests is a matter of international security.

Government agencies claim that Bangladesh has 2.52 million hectares of forest land, though studies by different agencies say it is 1.44 million hectares. The Bangladesh part of the Sundarbans spans about 6,000 sq km, including a water area of 1,700 sq km.

Shrimp culture, logging, setting up of brick kilns in agricultural land and forested areas, and rampant insecticide use, are some of the major causes of forest destruction. Brick kilns that use firewood puff away 2.4 crore trees every year -- covering about 96,000 acres of land -- as a report published in The Daily Star on June 5 shows. Shrimp cultivation increases water salinity, inhibiting growth of trees and destroying croplands that depend on fresh water. Loggers are cutting down trees deep in the forests, destroying the very resources that support human life. Consequently, the forest areas and the life forms that depend on them are disappearing at a faster rate than ever before.

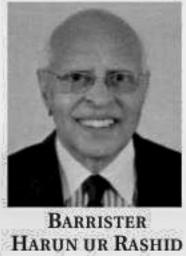
Trees are the most essential bounties of nature contributing to the sustenance of life on earth. To industrialised countries trees are a treasure trove of biodiversity and green house gas sinks. To developing nations, forests are resources ripe for exploitation -- a potential farm land, a free source of fuel and a storehouse of expensive woods.

There is a close link between economic growth, human development and good management of natural resources, mainly water bodies and forests. Unfortunately, socio-economic development is threatened by environmental degradation through polluted water and extinction of forests. Researchers estimate if the current rate of pollution of land and water followed by habitat destruction were to continue, our descendants will inherit a biologically impoverished and homogenised world.

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BOTTOM LINE

Pipeline diplomacy in South Asia



N May 23, it was reported that stateowned energy companies from India and Pakistan had signed a 20-year agreement -- the Trans-Afghanistan Pipeline (TAPI) -- with Turkmenistan in Avaza, a tourist resort in Turkmenistan, to purchase up to 1.2 trillion cubic feet of gas a year via the pipeline.

It is reported that the pipeline will be 1,420 millimetres (56 in) in diameter and the initial capacity will be 950 billion cubic feet of natural gas per year, of which 71 billion cubic feet will be provided to Afghanistan and 440 billion cubic feet each to Pakistan and India.

Later, the capacity will increase to 1.2 trillion cubic feet. Six compressor stations would be constructed along the pipeline, which is expected to be operational by 2014.

In Afghanistan, the TAPI will be constructed alongside the highway running from Herat to Kandahar, and then via Quetta and Multan in Pakistan. The final destination of the pipeline will be the Indian town of Fazilka, near the border between Pakistan and India.

In the past, the project had gotten nowhere because of the Taliban insurgency in Afghanistan and commercial disagreements between the partners. Despite security concerns, the countries involved have continued to push forward. For the US the project offers a way to further isolate Iran, which is trying to build its own gas pipeline to Pakistan

The much-delayed \$7.6 billion project has been kept alive by the US, which has, for almost 20 years, supported the plan to pipe natural gas over 1,800 kilometers from Turkmenistan via Afghanistan to Pakistan and India -- commonly referred to as the TAPI pipeline.

Afghanistan may earn as much as \$100 million per year from transit fees from the TAPI pipeline. The countries recently agreed at a meeting in Pakistan on how much Afghanistan should get in transit fees, disagreements over which had been holding up a gaspurchase agreement. Afghanistan also will buy a

small amount of the gas but has yet to reach an agreement with Turkmenistan.

Government reports suggest that Pakistan currently has an energy shortfall of between 3,000 and 4,000 megawatts (MW), while India's shortfall is estimated to be between 15,000 and 20,000 MW. India and Pakistan hope Turkmenistan's gas will help meet their huge energy import needs.

Turkmenistan, a major supplier of natural gas, is hoping the deal will allow it to find alternative customers for gas from its massive Galkynysh field, the second-largest gas reserve in the world. The country was long dependent on Russia, which has cut back purchases in recent years amid the global economic downturn. The Central Asian country is exporting to China via a pipeline but is looking to diversify its

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markets further.

The signing in Turkmenistan is backed by the Asian Development Bank. The Manila-based multilateral lender is funding a small part of the project and helped broker the deal.

It is reported that Bangladesh is considering joining a four-nation TAPI gas pipeline project by the end of 2017. The proposed pipeline will need to be lengthened by another 700 km, if it is to connect to Bangladesh's internal gas network. Experts believe it is both feasible and possible if all the parties agree. Bangladesh has to inform the Asian Development Bank.

In early March, the Obama administration asked Congress for \$1 billion in assistance with energy infrastructure projects in Pakistan. Secretary of State Hillary Clinton explained before a House Appropriations Subcommittee on Foreign Operations that the

requested funds were aimed to assist in TAPI.

The alternative, she feared, was that Pakistan would choose to buy gas from a pipeline being built by Iran with financial support from the Chinese Export-Import Bank.

It also could help deepen economic ties between India and Pakistan -- rival nations that Washington wants to see cooperate more to help forge stability in the region, particularly in Afghanistan.

"We think this is a very positive step forward on TAPI," a U.S. State Department spokesperson familiar with the matter said. "We hope to see further momentum and progress on this regional strategic priority."

Andrew Neff, a Moscow-based senior energy analyst at IHS, a global consultancy, said instability in Afghanistan means the pipeline -- estimated four years ago to cost \$7.6 billion to construct -- will now cost more.

The U.S. is trying to persuade countries like India to reduce their purchases of Iranian crude oil. The US has promoted alternative sources of energy, signing a civilian nuclear deal with India and pushing projects like the TAPI pipeline.

New Delhi recently has begun to cut back on Iranian crude purchases, under US pressure to do so by the end of June or face limited sanctions. Iran, which could have been a major supplier of LNG, cancelled a huge deal with India after it had been signed, following India's vote against its nuclear programme in the IAEA.

Pakistan argues it needs to push both the Iran and TAPI pipelines to meet a looming energy shortage. The US refused to sign a civilian nuclear deal with Pakistan because of its history of nuclear proliferation

The US government has a rare opportunity to deal with its two most intractable problem countries in South Asia -- Iran and Pakistan -- with one master stroke of pipeline diplomacy.

It remains, however, unclear to many observers how the TAPI project can progress given the Taliban insurgency, which controls large swaths of southern Afghanistan and parts of the Afghanistan-Pakistan border. A separatist rebellion in Pakistan's southwestern Balochistan province, through which the pipeline must also pass, further complicates the picture.

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The New York Times EXCLUSIVE

The age of unsatisfying wars

JOHN A. NAGL

HIS Memorial Day, President Obama recognised veterans of all of the nation's wars, but focused on two: the war in Iraq, which came to an end, for Americans, this past year, and the Vietnam War, which began, for Americans, 50 years ago.

Obama was quiet, however, about the war in Afghanistan, the one for which he will be remembered in military history. Perhaps that's because things in Afghanistan are still muddled; will it end like Vietnam -- an abject, helicopters-flying-out-of-Kabul, people-hanging-on-theskids defeat -- or in an unsatisfying and untidy sort-of victory, like Iraq?

From a traditional point of view, neither option seems particularly attractive. But Obama should welcome an Iraq-like end to Afghanistan: as contradictory as it may seem, messy and unsatisfying are the hallmarks of success in modern counterinsurgency wars.

America can live, for example, with the current Iraqi government and its policies, and Iraq's increasing oil output will help the global economic recovery. This is an unsatisfying return on the blood and treasure we poured into Iraq, but it is not a complete loss -- and it is far better than we could have imagined in 2006, when Iraq was descending into civil war and al-Qaeda had established an important foothold there.

It is not unlikely that 2015 will see a similarly reasonable Afghan government that will hold together with American money and advisers -- an unsatisfying end, but not a failure, and not without promise of greater stability to come.

Unsatisfying wars are the stock in trade of counterinsurgency; rarely, if ever, will they end with a surrender ceremony and look like a conventional victory. And yet this is the sort of war we have fought, almost exclusively, for over 50 years. President John F. Kennedy warned those graduating from West Point in 1961 that they would struggle to defeat insurgent enemies: "Where there is a visible enemy to fight in open combat, the answer is not so difficult. Many serve, all applaud, and the tide of patriotism runs high. But when there is a long, slow struggle, with no immediately visible foe, your choice will seem hard indeed."

The choices of that West Point class, and of those that would follow it into a counterinsurgency campaign in Southeast Asia, were more difficult than their young presi-

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dent could imagine. Although the army made real progress in understanding and implementing counterinsurgency principles under Gen. Creighton W. Abrams Jr., the lesson of Vietnam was not to fight irregular wars in Asia.

The army learned that lesson all too well, forgetting what it had learned in the jungle and focusing on a conventional war with the Soviet Union. The army and Marines quickly destroyed Saddam Hussein's military in 2003, only to find themselves facing an enemy they should have expected: insurgents, some inspired by radical Islam, but many more by simple nationalism.

Hard lessons in counterinsurgency had to be relearned before Secretary of Defense Robert M. Gates and Gen. David H. Petraeus implemented a strategy that combined fighting with negotiations. The 2007 surge, employing new counterinsurgency tactics, and the mindless brutality of the insurgent group al-Qaeda in Iraq persuaded the Sunni tribes to "flip" and start fighting the radicals rather than Americans.

The surge changed the war in Iraq dramatically, even as Barack Obama, then a candidate for president, was promising to swing resources away from Iraq and into the "good war" in Afghanistan. Obama fulfilled his campaign promise and then some, tripling American forces in Afghanistan during his first year while also doubling down on drone strikes in Pakistan.

Again the strategy aided by the killing of Osama bin Laden by a Navy SEAL team, worked to a degree. With al-Qaeda effectively dismantled, a government that is good enough to run the country is likely to be sufficient to achieve core American national security objectives as well.

Like any successful counterinsurgency, Afghanistan is likely to end somewhat unsatisfyingly for Americans, with a corrupt but gradually improving government in Kabul, advisers helping Afghan security forces fight a weakening but still dangerous Taliban, and a schizophrenic Pakistan alternately helping Afghan and Taliban fighters.

It may also, in the odd logic of counterinsurgency, be more likely to succeed if we leave the project somewhat unfinished. T.E. Lawrence, no slouch as an insurgent himself, advised: "Do not try to do too much with your own hands ... It is their war, and you are to help them, not to win it for them."

John A. Nagl, a research professor at the U.S. Naval Academy and a retired Army officer, helped write the Army/Marine Corps Counterinsurgency Field

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