

Nightmare of radioactive exposure foretold by Pentagon expert

THE United States military knew that ammunition containing depleted uranium was a health hazard a decade ago -- well before Gulf War veterans started falling ill with cancer, a former Pentagon expert claims.

Now, while the US and Britain maintain that contact with remnants of depleted uranium (DU) shells poses little risk, some of their partners in the North Atlantic Treaty Organization are drawing links between the deaths of Balkans veterans and exposure to the element.

"This stuff is a nightmare," says Doug Rokke, former Depleted Uranium Project Director with the US Army. "It is toxic, radioactive and pollutes for 4,500 million years. It cannot be removed from clothes -- if they are not physically removed, bagged and safely disposed of and DU is scrubbed off your body, you will get sick."

Rokke, a Vietnam and Gulf War veteran with more than 30 years' experience in nuclear, biological and chemical warfare, was charged by the Pentagon with organising DU cleanup operations in Saudi Arabia and Kuwait after the Gulf War in 1991.

The US and Britain have also used DU -- radioactive waste from nuclear power stations -- for its armour-piercing shells since the Gulf War. On impact, these shells burn off a spray of fine dust, which some scientists believe can cause cancer.

More than 900,000 rounds of DU shells were fired during the Gulf War, compared to 10,000 rounds in Bosnia in 1994-95 and more than 30,000 rounds during NATO's campaign to eject the Yugoslav army from Kosovo in 1999.

Rokke is furious that depleted uranium was used again in the Balkans -- and that another generation of soldiers and civilians is set to pay the price.

He maintains that DU is "now resulting in severe health effects, including death."

"I and my colleagues warned US and British officials that this would occur because of what happened in Iraq and to my team," he told Gemini News Service. "They disregarded our warnings because to admit any correlation between exposure and health effects would make them liable for their actions in wilfully refusing health care and environmental remediation, wherever these weapons have been used worldwide."

In early January, Italy initiated an enquiry into the link between depleted uranium and serious illness in its peacekeeping troops in the Balkans. Six have already died of leukemia, and 12 others have developed cancer.

Portugal, Finland, Turkey, Bulgaria, Belgium, Greece, Switzerland, the Netherlands and now Britain plan to screen their troops who served in NATO's Kosovo Force.

Fears that depleted uranium shells used in Kosovo and Bosnia may have caused cancer among NATO troops have sparked investigations into their safety. **Felicity Arbuthnot of Gemini News Service talks to a US Army expert who says he warned a decade ago about the dangers of using this radioactive material in ammunition.**

Depleted uranium

1. American A-10 anti-tank aircraft fires 30-mm armour-piercing shell containing rod of depleted uranium
2. Shell pierces tank and explodes, releasing cloud of dust and vapour. Depleted uranium vaporises as it explodes, sending a fine radioactive dust into surrounding environment
3. Uranium dust can be inhaled by those in the contaminated area, causing health problems including cancer. The radioactive dust can also affect civilian populations through contaminated soil and water



US war veteran Doug Rokke: 'fed up with lies' about DU

Yet the US holds off.

According to Shaun Rusling of the Britain-based Gulf War Veterans and Families Association, 521 British veterans had died of Gulf War-related illnesses by the end of 2000.

Rokke, who briefed the House of Commons Defence Select Committee last year on depleted uranium, is frustrated, angry -- and ill.

"Since 1991 numerous (US) Department of Defence reports have stated (that the consequences of) DU were

unknown," he says. "That is a lie, they were told -- they were warned."

Rokke says he gave military personnel classified briefings, made training videos "specifically identifying" hazards and gave "decontamination briefings."

"I can confirm that medical and tactical commanders knew all the hazards, there were written briefings and refresher courses," he says. "My source of frustration is that today dangers are still ignored. In cases of exposure we advised long-term medical monitoring and support."

Rokke claims that numerous documents on the hazards of depleted uranium have gone missing.

The consequences to Rokke and his team are chilling.

During the cleanup in Saudi Arabia they collected contaminated tanks and military vehicles for shipment to a nuclear decontamination facility at Barnwell, North Carolina. They buried other vehicles, contaminated equipment, even contaminated body parts and hazardous materials near Saudi Arabia's King Khaled Military Base and shipped spent depleted uranium rounds to the US.

Thirteen of his 50-member team paid with their lives.

"All but one of over 50 individuals I keep in regular contact with are sick," Rokke says, adding that the one who is healthy was the only operative to wear full radiological protective clothing.

Rokke's own health has deteriorated. The former Al-fit veteran, expert skier and scuba diver is suffering from respiratory problems, neurological damage, and kidney ailments. He has had 15 kidney operations since 1995.

The cost of speaking out has also been high.

"My house was broken into twice, I was shot at once; telephone problems and computer viruses are endemic. There have been numerous face-to-face warnings from uniformed army officers to stop speaking out, the most recent on 2 December."

He even lost his job at the university he taught at, and blames the army for that.

Two months ago he moved to a location he will not divulge.

That Rokke is not a warrior-turned-peacekeeper gives special poignancy to his stand. He is fiercely patriotic, and proud of his and his colleagues' service.

"I am fed up with the lies, utter disregard for health, environment and accountability," he says.

Arbuthnot is a freelance journalist who has been nominated for two journalism awards this year, the Millennium Peace Prize for Women and the Courage of Conscience Award for her coverage on depleted uranium and Iraq.

ENVIRONMENT WATCH

Protecting panda



PHOTO: AFP

Female panda Shuan Shuan is expected to mate with the male panda Ling Ling at the Mexico City Zoo. A 15-year-old male giant panda from Tokyo's Ueno Zoo, Ling Ling arrived in Mexico City on a three-month mission to mate with three female partners.

UN experts foresee ozone smog blanketing northern hemisphere

AFP, Paris

Traffic pollution, especially in Asia, is becoming so bad that most of the northern hemisphere will eventually be blanketed by ozone smog, triggering asthma epidemics and damaging crops and vegetation, UN scientists say.

The UN's Intergovernmental Panel on Climate Change (IPCC) predicts that by 2100, ozone smog will longer be limited to traffic-choked conurbations -- it will be a hazard "on a hemispheric scale."

The warning is buried in a 1,000-page report issued by the IPCC in Shanghai last week that focussed on the threat of global warming, the British weekly New Scientist reports in next Saturday's issue.

The document predicts that background levels of ozone will rise from 25 parts per billion (ppb) to 60 ppb by 2060 and more than 70 ppb by 2100.

"It may be impossible to achieve a clean-air standard of 80 ppb over most populated regions," the IPCC, a panel of top climate scientists, says.

Above 30 ppb, ozone can damage trees and causing wilting among crop staples such as wheat, according to the European Environment Agency (EEA). The figure of 80 ppb is also significant as it is considered the trigger for asthma attacks among many people.

Compounding this damage is the fact that ozone in the lower atmosphere acts as a "greenhouse" gas which accelerates global warming, thus increasing the pace of climate change.

Migratory birds lose Bangkok perch

AFP, Bangkok

Swallows migrating to Bangkok from northern Asia have lost a seasonal perch due to the removal of electrical lines and trees to make way for the city's Skytrain network, a report said Wednesday.

Power cables lining Bangkok's busy Silom Road have long provided a winter home for thousands of barn swallows who fly south from Russia and China, The Nation newspaper said.

The bright lights that draw partygoers to the district's restaurants and bars, including Patpong's famed strip of go-go bars, also attract swarms of flying insects that are the birds' staple food.

But the number of swallows passing the winter on Silom Road has declined every year since 1992, when there were some 130,000 living along the thoroughfare.

When the first cables were removed in 1993, the number of barn swallows dropped to about 71,000. In 1996, when Skytrain construction began, the number sank to 48,000 and last year a mere 38,000 were counted.

The Silom Road Tagging Project is monitoring the changes wrought by the elevated rail network which has revolutionised travel around Bangkok's business and tourist districts, but proved less helpful for the swallows.

A joint venture of Telecom Asia Co-operation Co, the Royal Forestry Department and the Bird Conservation Society of Thailand, it has been studying swallow migratory patterns in Thailand.

Each year the Silom Road Tagging Project's staff join up with student volunteers to catch the birds with large nets before tagging and releasing them with a coded band showing the time and location of their capture.

This year's round of tagging will take place Wednesday night.

However, a Telecom Asia spokesman told The Nation that the project could end this year if the swallow population dwindles further.

Drastic changes in the environment along Silom Road could someday deter the birds from ever returning, Watchara Yooaswad of the Bird Conservation Society told The Nation.

"Historically the birds have arrived in October and stayed for about six months before flying back to China or Russia."



PHOTO: AFP

A young Thai volunteer uses large nets to catch swallows which are then tagged with a coded band identifying to record the number of swallows passing the winter in Bangkok. Swallows migrating to Bangkok from northern Asia have lost a seasonal perch due to removal of electrical lines and trees to make way for the city's Skytrain network.

Greece plans to turn airport into park

AFP, Athens

Greek Prime Minister Costas Simitis said Wednesday he would turn the Hellenikon international airport south of Athens into a park after a new airport is opened in March.

German consortium Hochtief AG is building the new facility, Spata airport, about 40 kilometers (25 miles) northeast of the capital. It is due to be inaugurated in March.

The park would "create a completely different environment in the Athens basin," Simitis said.

Managing our coastal resources

GAZI NURUL ALAM

BASED on available information on the geomorphological conditions and hydrological features, the coast of Bangladesh is about 710 km long and can be broadly divided into three distinct regions, the eastern, the central and the western. Bangladesh has 7,325 sq nautical miles/25,151 sq km/25,15100 ha of internal water up to base line. The territorial water of the country is 2,640 sq nautical miles/9,065 sq km/9,064,470 ha up to 12 nautical miles from base line. Its Exclusive Economic Zone (EEZ) is 41,040 sq nautical miles/140,915 sq km/140,915,000 ha. The estimated total marine water area is 1,66,600 ha or 1,66,066 sq km or 48,365 sq nautical miles.

Bangladesh is uniquely endowed with a wide variety of economically important coastal resources. The major ones include: a vast network of rivers; a large number of fertile islands in between the channels; mangrove vegetation; agriculture; livestock and poultry; fishery; human resources; flora and fauna.

Network of rivers: Bangladesh has a vast network of rivers numbering about 230, about 24,000 km in length and covering an area of 9,380 sq km (6.5% of the total area of Bangladesh).

Most of the major rivers have linkage with the estuary and finally meet the Bay of Bengal. Inland navigation has always been a principal means of transportation in Bangladesh. In the coastal area, especially in the regions of Khulna and Barisal, it is still the major means. Moreover fish is the important fauna of these rivers and considerable number of households of fishermen community depend on river fishing for their livelihood.

During the last 15-20 years, considerable and rapid deterioration has taken place in the river system and navigation routes, especially in the coastal areas, through massive siltation, channel instability and human interference. The main causes of the rapidly worsening situation are the instability of rivers and erosion of river banks due to high rate of rise and fall in the water level, siltation of the channel due to increased volume of sediment supply as well as reduction of the flood spillage due to construction of polders and closures on small channels for flood control, resulting in the blockage of country boat routes.

Large number of islands in between the channels: Due to gradual erosion and accretion, a number of island have emerged and are emerging till date. Notable of them are Hatiya, Sandwip, Nijhumdwp, Monpura, Char Mojid, Char Kukri Mukri, Haimchar, Char Jabber. Some of the islands are inhabited by people while some others have no human population.

The already existing islands are under regular erosion threat and the islanders are living under great stress and strain. But these accreted islands are our very important resource and should be brought under development programme as soon as possible. The accreted islands will facilitate rehabilitation of landless coastal people and ultimately these fertile lands will start yielding.

Mangrove vegetation: Bangladesh has one of the largest mangrove eco-systems in the world. In one long stretch, the Sundarbans contain 395,500 ha of mangrove forests. In the eastern part of the coast, there is a small patch of about 7,500 ha of forests known as "Chakaria Sundarban." However, over the last twenty years the Chakaria forests have almost been denuded to make room for shrimp cultivation. The areas occupied by mangrove in Bangladesh have virtually declined by 40 percent over the years.

Mangrove ecosystems also provide a valuable physical habitat for a variety of important coastal species. Waterfowl and shorebirds are well known and highly valued inhabitants of wetlands, as are alligators and muskrats. Less evident, but equally important are crabs, shrimps, sport fishes along with numerous other fish and invertebrates. Shoreline mangroves are recognized as a buffer against storm-tide surges that would otherwise have a more damaging effect on low-lying areas. Littoral strip mangroves planted by the Bangladesh Government in the 1980s are credited with saving thousands of lives and millions of dollars worth of property during the cyclone of 20 April, 1991, that ravaged the southeast coast of the country.

Preserving, protecting and developing the natural resource are the main tools for sustainable development. As such promoting participatory, community based environmental resource management and environmental protection (considering the poor access, equality as well as gender issues); ensuring active participation of the poor, especially women in environment protection activities; strengthening the capabilities of public and project sector to address environmental concerns; conserving non-renewable resources and sustaining auto eco-generation of renewable resources; promoting sustainable environment management in pursuit of quality livelihood and alleviation of poverty.

Also, mangroves are often noted for their ability to stabilize coastal shorelines that would otherwise be subject to erosion and loss.

Agriculture: Of the gross areas of 1,071,437 ha in the coastal belt, 312,560 ha is under net cultivation. Presently single cropping is practiced on about 59 per

cent, double cropping on about 32 per cent and tripple cropping on about 9 per cent of the cultivated area. Agricultural productivity in the coastal belt is generally low due to salinity, poor communication service and credit facilities as well as natural calamities such as floods and cyclones. Ways should be bound to overcome

Life & trade in a polluted city



PHOTO: AFP

Faisal, a 12 year-old street vendor along with his brother Mayen Uddin, waits for customers with their home-made masks which people use to protect themselves from pollution in the capital, which is one of the world's worst polluted cities. Thanks to high toxic elements emitted from vehicles, number of men, women and children reporting respiratory disorders and low IQ problems is on the rise. More than 50 per cent of vehicles plying in Dhaka's streets are unfit for public health.

the barriers as much as possible.

Livestock and poultry: Livestock plays a vital role for the draft power of the agricultural activities in the area. They are utilized for ploughing the land, transporting and threshing as well as producing milk and cow dung. In Khulna, Barisal and Noakhali about 45 per cent to 49 per cent households and in Chittagong and Potuakhal about 50 per cent to 54 per cent households rear livestock (Agril and livestock census 1983-84).

Scarcity of animal fodder and inadequate veterinary services are the basic problems for the livestock management in the coastal area. Poultry is poorly developed in the coastal area because of disease, flood and cyclone. In solving such problems, steps taken for one may help another.

Fishery: Fish in the estuaries and the sea constitute a major coastal resource. Unfortunately, reliable data and information on standing stock, potential yield and MSY are lacking. Weighing various assessments of heterogeneous quality and coverage, it appears that on the whole Bangladesh may be close to harvesting fish at the maximum yield which still allows the stock to renew itself naturally. Some studies also point to a gradual decline in fish availability. The tragic decline in fish availability is a direct reflection of unplanned environmental exploitation. Water projects have destroyed fish habitats over vast areas, biocide applications and toxic chemical pollution from untreated and industrial effluents have had unmeasured destructive effects and deforestation of mangroves has depleted the nutrient rich stores that made Bengal's fisheries famous. These three causes of fishery decline were consequences of the project approach to development which ignores impacts not within the narrowly defined rate-of-return objective of the individual project, but also beyond.

At the same time as fish availability to Bangladesh has been declining, however, shrimp export has become the nation's second most important foreign exchange earner, after jute. This is welcome for Bangladesh, but unplanned and uncontrolled growth has meant destruction of mangrove forest areas, reduction in livestock feed, reduction in tree biomass, reduction in the non-exportable shrimp/fish stock. Collection and likely overexploitation of the most desirable shrimp larval have also made water management in polders more difficult and led to serious weakening of embankment, setting the stage for a "natural disaster" of the first magnitude when the next cyclone strikes.

Flora and fauna (bio-diversity): Bangladesh is rich in wide variety of flora and fauna as compared to the rest of the world. The statistics of flora and fauna is furnished below. Flora: 5,000 flowering plants; Fauna: mammals: 199; birds: 567; reptiles: 120; amphibians: 734. Besides we have large number of unidentified flora and fauna.

Resource management aspect: Bangladesh is uniquely endowed with natural resource. So it is highly necessary to conserve both renewable and non-renewable natural resources for the sake of present and future generation. So the management of both renewable and non-renewable resource has to be given top priority. Under the circumstances, the author likes to suggest the following:

Comprehensive survey needs to be made to know the exact status of the natural resources. This will help in management to the resources and in promoting environment friendly activities in development intervention.

Preserving, protecting and developing the natural resource are the main tools for sustainable development. As such promoting participatory, community based environmental resource management and environmental protection (considering the poor access, equality as well as gender issues); ensuring active participation of the poor, especially women in environment protection activities; strengthening the capabilities of public and project sector to address environmental concerns; conserving non-renewable resources and sustaining auto eco-generation of renewable resources; promoting sustainable environment management in pursuit of quality livelihood and alleviation of poverty.

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