

SPEECH OF HON'BLE MR. JUSTICE VIJENDER JAIN, CHIEF JUSTICE, PUNJAB AND HARYANA HIGH COURT, CHANDIGARH IN A SEMINAR ON “DEPLETED URANIUM – AN ENVIRONMENTAL HAZARD” ON 5.4.2008 AT GURU NANAK DEV UNIVERSITY, AMRITSAR.

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Prof. Dr. Jai Rup Singh, Vice Chancellor; Dr. A.K.Suri (Materials Group), BARC, Trombay, Bombay; Dr. Manjit Singh, Associate Director, Design, Manufacturing and Automation Group, BARC, Bombay; Shri Arun Srivastava, CMC, New Delhi and Admiral Vishnu Bhagwat, Bombay and other distinguished guests, ladies and gentlemen.

It gives me immense pleasure to inaugurate the Seminar on *“Depleted Uranium-Environmental Hazards”*. The quest in the contemporary world where globalisation and privatisation with the desire to mope up profits have taken the entire international community in its fold the inherent danger to environmental degradation has also risen multi-fold and has become multi-dimensional. The growth of industry, nationally

or globally, will be meaningless if we cannot provide security to the human being. Security to human being includes freedom from hunger and freedom from fear. Never before in the history of world, the individual has been threatened on account of ecological degradation than today. The accelerated pace of economic development has also accelerated the environmental hazards and in this direction, today's Seminar assumes great significance.

Despite all technological and other breakthroughs, we still live in a world where one fifth of developing world population goes hungry every night, a quarter lacks access to even basic necessities like safe drinking water and one third lives in a state of abject poverty. Despite 9% economic growth for the last four years, 25% of Indian population lives below the poverty line and 35% still waiting to be literate. Is it not mind boggling that between 1997-2005, nearly 1.5 lacs farmers committed suicide as they were unable to repay the loans obtained for meeting their necessities. Thousands of peoples

are uprooted from their land and heritage in the name of mega projects, many times depriving them of even their livelihood.

The issue of human security and survival and environmental fragile planet has gained urgency. By the middle of this century the world's population may double and the world economy may quadruple. Food production must triple, if people are to be kept fed but the resources for agriculture are eroding. Energy must be provided, but even at today's level of use fossil fuels threatened climatic stability. The destruction of the world forests and the lands of biological wealth and diversity continue relentlessly - What ecology we are taking about?

Natural uranium, which constitutes about 3 parts per million of average crystal rock by weight, consists of 99.3 percent U-238, 0.7 percent U-235 and 0.0054 percent U-234 (a radioactive decay product of U-238). Depleted uranium differs from natural uranium by virtue of having most of its U-235 and U-234 removed to make enriched uranium for nuclear fuel

or weapons, but its chemical and biological behavior is virtually identical to that of natural uranium in the same chemical form.

Depleted uranium is a deadly toy in the hands of the ruling bloodlines. A particle of DU ingested or inhaled can cause one or more of the 90+ seriously debilitating diseases, fatal or temporarily non-fatal. The half life of DU is 4.5 billion years, and it can destroy living things and the environment; most importantly it can destroy perfectly healthy lives.

Depleted uranium has been used in at least the last four wars by the United States and its allies: Gulf War 1, Bosnia and Kosovo in the Balkans, Afghanistan and Gulf War 2. The last two of the four wars, took place in 2001 (Afghanistan) and 2003 (Iraq). Effects of the contamination can manifest from within a few hours to five years.

Evidences clearly indicate that depleted uranium is blowing in the wind all over the world. Its effects on health are showing up in distant lands. Earlier, gulf war veterans and

local civilians were affected; now, of all the places, the US is showing six-fold increase in just lung cancer cases.

The population of the USA is approximately 298 million. The recorded 172,000 lung cancer cases for January and February 2006 equates to 34 cases per 10,000 persons-men, women and children- up from the previously normal trend line of 5.8 per 10,000 persons per annum, implying that additional 28.2 cases per 10,000 persons have been added and recorded in a short time. It certainly cannot be due to more Americans smoking cigarettes and certainly not due to "other unexplained factors" such as lifestyle changes, which do change but over decades, not a few years. The most plausible one is that the air we breathe is contaminated with depleted uranium and it is killing healthy people all over the world.

If the population of the United States of America shows such an explosive growth of lung cancer what does it imply for the rest of the world? The world population is 6.5 Billion. Assuming the same ratio as that of the United States,

i.e. additional 28.2 cases per 10,000 persons, the world would see, or is probably already facing, an additional 18.34 million cases of untreatable cancer per year, or 1.52 million cases per month.

In the 20th century, approximately 100 million people died world-wide from tobacco-associated diseases (cancer, chronic lung disease, cardiovascular disease and stroke), says a WHO report. This means about one million deaths per year. In 2001, there were 1.5 million lung cancer deaths worldwide.

This inhaled DU represents a seriously enhanced risk of damaged immune systems and fatal cancers. Those immediately downwind (will) die quickly, in hours or days. Those further downwind will take longer. Those around the world will eventually suffer an unimaginably painful premature death.

Levels of DU contamination in food and drinking water might be detected in affected areas even after a few

years. This should be monitored where it is considered there is a reasonable possibility of significant quantities of DU entering the ground water or food chain.

Nuclear radiation induced cancers are peculiar. Countries like India, Pakistan, Nepal, Afghanistan, Iraq, and some Central Asian States do not even have well established, dependable cancer screening facilities, let alone determining whether the illness is due to depleted uranium contamination or careless handling of toxic pesticides in the farms.

There are studies that clearly establish correlation between cancer and exposure to a decoction of pesticides used in our farmlands and in some of these regions (especially Punjab) the incidences of cancer (of blood, lymphatic systems, esophagus, bone, cervical, etc.) ranges from 5.12 to 10.3 per 10,000 persons. Now, this is a global phenomenon and has definitely caused serious health problems (immune disorder, low birth weight of babies, and a host of other degenerative diseases.

In our living memory we have the instance of Chernobyl. Scientists say that Chernobyl was not a nuclear explosion; it was just a huge hot fire in the nuclear fuel. Yet, the radioactive fallout from Chernobyl contaminated farmlands and livestock around Europe and Scandinavia for a long time, and the radiation is still traceable in the earth and some living things. The regions surrounding Chernobyl shall remain uninhabitable for an estimated three to six hundred years! Depleted uranium is bit nastier; a fact that did occur to the reckless people who were controlling it.

Now, test this scientific fact over just one country, India. The entire north-western region, including the Himalayas is affected. All perennial rivers flowing from the Himalayas into the Gangetic plains (the Ganga and Yamuna with hundreds of tributaries) and into Pakistan (the five rivers: Indus, Satluj, Jhelum, Ravi and Chenab), will contaminate the largest and oldest food growing area in the world. This region has a high livestock population that supports India's and

Pakistan's fuel, food, and farming needs.

The Northwestern region is also economically the fastest growing region in India, predicted to catch up with Europe in 2020. Migration from slower growing eastern region has swelled the transient population in western India and we are talking about seasonal migration of millions of surplus farm/landless labourers, roughly 5 million live in Delhi alone eking out a living. Poor, physically weak because of inadequate nutrition, without access to proper medical facilities, these people will be severely affected. When they contract one of the 90 odd radiation induced illnesses, they wouldn't even know what destroyed them, what destroyed their families, and what eventually killed them?

Small children could receive greater exposure to DU when playing in or near DU impact sites. Their typical hand-to-mouth activity could lead to high DU ingestion from contaminated soil.

The international community and all citizens of the

world must raise a unified voice in opposition to future use of depleted uranium and force those nations that have used depleted uranium munitions to recognize the immoral consequences of their actions and assume responsibility for medical care and thorough environmental remediation.

There is no time to ring one's hands. The people of this global village need to join hands in a global peaceful, non-violent movement to understand the danger of Depleted Uranium. Inform yourself, educate your family and neighbourhood; read the hundreds of authoritative papers written by scientists. Is there any reason to fear when all of us are under death sentence for a crime none of us committed? The power is in your hand.

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