

THE STORY OF THE BIOLOGICAL WARFARE.

So Easy And Cheap, Yet So Shockingly Devastating.

On page 3 of the last issue of Parsi Pukar (Vol. 10-4), 7 threats were enumerated, which according to Sir Martin Rees (Astronomer Royal of U.K.), are leading to the humanity's doomsday in this century itself. One of the seven, which can be the easiest and nearest to befall and is the most cruel and ghastly, is the invasion of the Biological Weapons. Their ammunition is not the gun powder or nuclear fusion, It is micro-organisms or pathogens i.e. germs, viruses, bacteria, fungi or others, which can spread fatal diseases on the vast populations of humans. The threat grows day by day and can jump like a chittah any day. I'll tell you a little about it.

The history is not empty about the use of Biological Weapons (BW). As early as in 600 B.C. (ironically Lord Buddha's Century) an Athenian Ruler Solon poisoned the water supply of Kirrha city by releasing noxious roots of a toxin plant, Helleborus. In the 14th century a Tartar army threw the bodies of plague victims over the walls of the Cremian town of Kaffa, to generate an epidemic in the enemy territory.

In the gloriously progressive West of the 18th century, British Soldiers and later on U.S. Govt. agents, generously gave to the North American red Indian people blankets contaminated with small pox virus! Nice way of killing in the name of Charity!

The "Science" of the modern man was marching on with its cell biology, bacteriology, virology, microbiology. A noble French Scientist, Louis Pasteur (1822-1895) developed the germ theory of disease, a blessing to mankind, not dreaming in his wildest dream that his Science of curing the diseases will after a few decades be used to kill healthy humans.

During World War I of the 20th century, 1,00,000 tons of Chlorine, phosgene and mustard gas disabled 1-3 million soldiers on both sides and killed 1,00,000. In 1936, Germans developed nerve gas which can switch off communications between nerve cells of humans. During World War II, Hitler was very near to spreading nerve gas. On this side, in USA and Canada researches were actively pursued to develop "promising" (i.e. promising to kill) pathogens (i.e. germs) at Porton Down, Suffield, Alberta, Maryland and elsewhere. Anthrax was the best choice. Before the end of the War, US and Britain had planned to make thousands of 2 kilogram anthrax bomblets. which could be clustered into 200 kg bombs, to be exploded in the enemy air. Our old friends, the British had stock piled 5 million anthrax-laced cattle cakes to wipe of enemy livestock.

But the pioneer of BW was Japan. They had established in 1937, a factory to develop biological bombs, in a small Manchurian village, employing 3000 scientists, technicians and soldiers, all psychologically equipped to kill. Reportedly they had cultivated seven tons of bacteria per month. Their favourites were anthrax, typhoid, plague, cholera, amongst several others. They had experimented and killed thousands of animals, and **had infected even the humans - prisoners of war....**

As the War II ended, there was a lot of discussions, debates and conferences on nuclear armaments, and threats. At the same time, the super powers were secretly and continuously working on BW. They called this "defensive" research programmes. The logic was that if the enemy resorts to an offensive by using BW, we will fire back offensively to defend ourselves. A defected scientist from Russia, Kantgan Alibekove says in his book Biohazard (Random House 1999) that in Russia he was in charge of 30000 workers on BW and their emphasis was to have pathogens which were more virulent and more resistant to vaccines. These vaccines are also a gift from microbiology to resist pathogens causing diseases, like polio and small pox vaccines. But the work going on all over the

globe in BW quarters is intended to make the antidotes ineffective! The idea of "defensive" and "offensive" has become meaningless.

The Book titled **Genethics** by David Suzuki and Peter Kundtson (Harvard Univ. Press 1990) gives on page 194-5 a table of "Selected Biological Warfare Diseases" containing the names of 16 Diseases, which include Anthrax, Cholera, Plague, Dengue fever, Small pox, Yellow fever.

Sir Martin Rees points out that perhaps the most fearful is smallpox. It is highly contagious. Several studies are made to know what would happen if and when the virus is released. The effect on a large city will be devastating. If the infection starts spreading, say from an airport or airliner, the epidemic may travel far and wide and the countries without a proper stock of vaccines will be hit irreversibly. "The incubation period (of small pox virus) is 12 days, so by the time the first case was manifest, those originally infected would have spread around the world, and induced secondary infections."

The war-scenario is now radically altered. Nobody knows who is the enemy, where is the enemy, when will he strike with a BW, where to strike back and how to retaliate. BW will have their devastating effect first, and then there will be a panic-run. And to find the enemy will not be that important as organising remedial measures.

There is a vast difference between the manufacturing of nuclear weapons and Biological weapons. The former requires huge factories, buildings, equipments which cannot be concealed. But BW can be made secretly and with utmost ease. A report issued in June 2002 by the US National Academy of Sciences horridly declares :

"Just a few individuals with specialised skills and access to a laboratory could **inexpensively and easily** produce a ponoply of lethal biological weapons that might seriously threaten the US population."

It is therefore not a country or nation which alone can use BW. A group of few individuals **or even a lone terrorist** is enough to shower utmost destruction. The June 2000 report also reveals that BW can be manufactured with easily available commercial equipments, which *

In February 1975 a Conference of 100 leading scientists in molecular genetics was held at Asilomar (California) and sounded the first warning to bugle :

"We believe that perhaps the greatest potential for bio hazards involving alteration of micro-organisms relates to possible military application. We believe strongly that construction of genetically altered micro-organisms for any military purpose should be expressly prohibited by international treaty and we urge that such prohibition be agreed upon as expeditiously as possible."

Alas! The expeditious dream is shattered.... for ever!

The seventh decade of the last century was a decade of warnings. Greenhouse effect, global warming, nuclear holocaust, moral degradation, biological weapons...

But all in vain.

*are used to make ordinary foods or beer or chemicals or medicines. Nobody would know what is going on in a small house or a room, anywhere situated.

Genetic engineering is so much advanced that all over the world there are people with expertise to carry out genetic variations. (i) DNA, the basic molecule of life, (ii) a genetic blueprint that can be downloaded from the Internet and (iii) psyche to kill even in one men, are enough ingredients for a huge epidemic. The deciphering of the human genome is a great discovery touching the outer surface of the secret of life, but is a great threat to the life itself. Modern Science and technology can be expressed as : "More you know, more you kill" Their laboratories are seats of surface - knowledge but also of easy ways to destroy. They have developed what is known as "**designer Virus technology**". It means to design and create new viruses, not found in Nature. Just read this:

"In the name of protecting soldiers and citizens, the American Government had paid for **fifty one projects** aimed at making novel pathogens, thirty two at boosting toxin production, twenty three at **defeating vaccines**, fourteen at inhibiting diagnosis and three at outwitting protective drugs." ("**Germ**s" by Judith Miller, Stephen Englberg and William Broad - Thouchstone 2002, page 84.)

Look at these 123 ways of resisting and nullifying the cures of diseases; of killing a deceased population by **preventing** the effect of curative medicine! Preventing the preventives to work! And mind, these projects were financed between 1980 and 1986. It is horrifying to imagine what must be the present position all over the globe.

THE AGONY OF A SCIENTIST

Joshua Lederberg, the son of a an orthodox Rabbi was awarded the Nobel Prize in 1958 when he was 33, for his pioneering work on genetic engineering, after 13 years of exertions. As the drama of biological weapons was fast unfolding, he was extremely worried for the human survival. His Scientific genius is well acclaimed and he has held many high scientific positions. All along he went on warning the Governments and people towards BW. From 1966 to 1971 he wrote a weekly column for the Washington Post. He championed a curb on germ warfare. "Time is running out" he wrote as early as in 1968. The strides of germ weaponry "**is akin to our arranging to make hydrogen bombs available at supermarket**" he said to a Parliamentary Committee in 1969. An arms race was on, "**whose aim could well become the most efficient means for removing man from the planet,**" he spoke in Geneva in 1970. Like "American Chestnut and European grapewine," mankind was facing annihilation. He said, this had provoked "**my own moral preoccupation with whether my own carrer will have been labeled a blessing or a curse to the humanity from which I spring.**" What an agony! Einstein had it when he saw the Hiroshima tragedy as an indirect consequence of his famous theoretical equation $E=mc^2$.

What a world to live in!! One looking to another with a scary doubt: is he carrying a tube-let of a deadly virus in his pocket? Is he a suicide bomber?

How long oh Lord! How long?

- Scientix

It was January 21, 1999. President Clinton was sitting in a large wing chair in the Oval Office of the Whitehouse. These were the Monica Lewinsky Scandal days. A portrait of George Washington was severely looking down at the President. He was facing the reporters of New York Times, who were invited by the President himself. At the very moment the Senate impeachment proceedings were going on at another place, Capitol Hill, with the half-quasi-judicial air, on the President's sexual scandal, hearing defense lawyers. But that was not the Agenda before the reporters. It was : the Biological – Weapons – Threat. In a country, where a school-girl resisting the sex advances of boys on the ground of her parents being devout devotees of Lord Jesus Christ, is termed as “frigid” and proposed to be sent to a psychiatrist, the drama of impeachment of the President for an immoral scandal, seemed to be huge joke. After all he is a President, presiding over infinite number of such scandals... And the impeachers could well be asked to throw the first stone to Mary Madgalene by one of them if an only if he... well you know the story (now commercialized in the name of poor Da Vinchi”

And Clinton himself did not seem to be worried at all, and spoke on the oncoming biological warfare. He was well read, well versed and well briefed on the subject by two eminent Scientists on the subject : J. Craig Venter and Jashua Lederberg the agonised scientist on pg 9 herein.

Clinton knew Venter well. Way back in December 1997 Venter was invited with his wife, also a scientist, by Clinton to a Small dinner meet (only with three older couples) at Hilton Head, an island resort in South Carolina. Venter had recently helped in drawing a genetic map of small pox virus. Both of them were locked in long conversation on such mappings and their effect on germ warfare. Clinton knew much on the subject, Venter later reported; he said, throughout history the biggest changes have come when there were new offensive weapons without defensive ones, and he was worried that we were entering such a period.” At that dinner meet Venter said that small pox was more dangerous than anthrax because the former “leapt from person to person” whilst the latter killed only when sprayed. Venter however said that the same genetic Science could provide for defensive measures too.

Going back to 21-1-1999, New York Times Reporters’ meeting with Clinton, he said that the new enemies are shooting up who could strike US with BW without identifying themselves. “People who dreamed of being martyrs were ‘more likely than the Soviets’ to strike out at Americans”. It was likely than Osama-bin-Laden might be trying to get germ weapons, he said. This was about 2^{1/2} years before Osama struck but not with genetic weapons but through suicide planes on World Trade. But the prophesy of Clinton today seems to be nearer. He had also promised that he would ask for finances to combat the threat. Bust was not that particular to start with. As is the way of politics, some people thought that Clinton was trying to cover his Monica scandal by these fears. But that was not true. He was quite aware of the coming calamity of BW and those 1999 nightmares he described are now in the air, and have aggravated.

When the notorious ‘9-11’ struck, Bush did go into the wakeful dream. 11th September 2001 was followed by envelops containing anthrax received by two US Senators. US administration woke up with a bang. In the Budget February 2002, it asked for **11 Billion Dollars** over two years to enhance defenses against biological terrorists.

And yet, the experts think that the world is unprepared for this man-made calamity of BW.