State Actors and Germ Warfare: Historical Perspective

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Summary

The old arguments against the effectiveness of biological warfare still apply. The effects of novel organisms would still be delayed, unpredictable, and difficult to control. In military terms, any advance is almost certainly not a matter of the routine use of bio-technology. Whatever the fact, this double edged weapon still acts like a deterrent against any kind of conventional attack. Empirical evidence suggests that the likelihood of such a war between technologically advanced states is remote as since 1945, the biological weapons have been used only in situations where the victims were unprotected and unable to retaliate.

Two thousand years ago the Greeks and Romans used human and animal corpses with great effect to poison wells of drinking water. The practice of throwing the bodies of plague victims over the walls of cities was also prevalent in the past. This strategy was employed by the Tartars against the Genoese in the Crimea War in 1346. It forced the Genoese to flee immediately and the spread of the disease to Italy became inevitable. Four centuries later infected bodies were used against besieged cities in the Russo-Swedish War of 1710.[1] Another method was employed by the British in their war against the American Indians, known as Pontiac rebellion (1763). Two hostile Indian Chiefs were given two blankets and a handkerchief, infected with the smallpox virus, as gifts.[2]

No nation has used germs intentionally and successfully against the personnel of another rival nation in the 19th century, though the Germans had injected the horses of Romanian cavalry with 'glanders' in 1914.[3] Some allegations were made during World War I that the horses exported from America to Europe had been infected with diseases.[4] Since then a great deal of research and experiment was devoted by various states to perfecting various techniques of use of living pathogen broadly speaking, biological weapon (BW). Post-war research was largely a continuation of Japanese, German and British policy during the World War II. The Germans, however, did not go beyond the stage of experimentation and sometimes war prisoners (PoWs) were subjected to the tests.[5] The British had been concerned that the Germans might use biological weapons and consequently launched an intensive research programme. Britain's military was even putting together a bombing plan for the use of anthrax against six German cities: Berlin, Hamburg, Stuttgart, Frankfurt, Aachen, and Wilhelmshaven.[6]

Japanese effort at using bio weapons during 1936 to 1945 was more coherent and effective. It was far more serious and fully substantiated. Large areas in China were used as testing grounds. Sabotage was also examined as a possible means of use of biological weapons. The preparations had reached the stage where a factory for the production of bacterial toxins, vectors and other means for prosecuting biological warfare had been built at Harbin in Manchuria and the programme was carried out in great secrecy.[7] In 1949, the use of biological warfare was probed during the trial of 12 Japanese prisoners of the Kwantung Army at Khaborovsk, USSR. The details of the trial were published in 1950. It took 27 years to confirm that the Khaborovsk incident was true.[8] It now appears that, in the course of testing potential biological weapons, the Japanese scientists experimented on more than 3,000 human guinea pigs and they were mostly Chinese and Russian prisoners of war. Hiroshi Akiyama, who claimed to have been a witness, alleged that 1500 to 2000 prisoners had died in these experiments.[9] The Harbin installation was destroyed by the Japanese before the Russians could capture it.

On 8 May 1951, allegations were made at the United Nations by the North Korean Government and further allegations were made in 1952, together with a statement by Zhou Enlai, then Chinese Foreign Minister, that biological weapon attacks had been made over north-east China. All these allegations were against the US. The charges referred to specific incidents involving insects and plant-pathogens. In 1952, an independent commission, The International Scientific Commission (ISC), was set up and invited to Korea and China to conduct the necessary investigations.[10]

The report of ISC mentioned the use of disease agents like plague, pulmonary anthrax, encephalitis and cholera. In the report the first disease discussed is plague. According to the information, for the past five centuries there had been no plague in Korea. Its appearance was a recent phenomenon. Human fleas infected with plague were alleged to have been found. Another case that the Commission considered took place in Kan Nan. This referred to the use of voles as carriers of plague infected fleas.[11] The next case discussed in the report concerns Anthrax which was allegedly spread in Kuan-Tien by anthomyiid fleas and spiders. These were found close to the bombs. Among other cases of anthrax in Liaotung and Liaohsi, a Ptinid beetle was found to be vector, allegedly found in large numbers.[12] Some eye-witnesses were examined by the commission. Several people had contracted respiratory anthrax and were subjected to post-mortem pathological investigation. Another incident referred to was the use of infected clams in Dai Dong. These allegedly carried cholera. Marine clams were found on a hill side by a peasant woman near a reservoir. They were wrapped in a straw. After eating the clams she and her husband died of cholera.[13]

The techniques of dissemination were also examined by the Commission. The Commission relied to some extent on the evidence of the captured US Airmen. Though spraying was the most feasible technique reported, it was believed that a paper package with hardy insects might have been dropped from a height. Another munition mentioned by the Commission was the a*ir-bursting variable-time fuse leaflet bombs*. These were allegedly used in many cases for insect dissemination. Though the Pentagon denied the charges, it was possible for the US to disseminate bacterial toxins through this method.

The casualties reported in Korea, though, were not clear. It is evident that a plague epidemic broke out at Bal-Nam-Ri. Out of a

population of 600 in the village, 50 were infected with plague and 36 died.[14]

Since 1960, there were a number of occasions when biological agents were used. In the summer of 1961, an English-language newspaper in Hong Kong, the 'South China Morning Post', reported a cholera epidemic in the South east of Kwantung province. It had accused agents of the American bacteriological warfare bureau of plotting the cholera epidemic.[15] But the accusation was rejected by the US Department of State. The same allegation was made by Cuba in 1964.

But in the Vietnam War of 1960-68, the most horrifying aspect was the use of biological warfare agents by the United States. In order to reduce the chances of detection, strategic applications against the population required the use of highly epidemic agents which would not spread over large areas. This strategy was applied by the US in Vietnam. In Vietnam, only one agent was thought to be likely to be of use, namely, the Pneumonic Plague, a highly lethal, highly epidemic disease restricted previously to a few river valleys. It is alleged that the United States decided to conduct a biological war against Vietnam, and this is evident from the report of the World Health Organisation (WHO).[16] Direct injuries caused by weapons were by no means the only health disasters brought about by the Vietnam War. Contagious diseases were spread in epidemic proportion within South Vietnam. On 26 October 1966, WHO announced that by October 1966, 306 cases of plague including 22 deaths had been reported in South Vietnam. In all, it was the suspected cause of 2158 cases and 107 deaths.[17] The report further stated that cases of plague had been reported from 24 out of 47 provinces in the South, and plague infections had been found in rodents in several ports and airports including Saigon, Nha Trang, Cam Rahn and Da Nang.[18] In South Vietnam, cholera increased by hundred per-cent with other intestinal diseases.

The germ warfare report was confirmed by an executive of the New England firm, Traveller's Research Corporation of Hartford, Connecticut. He said that the firm had contracted a project from the Defence Department to adapt bubonic plague for aerial dissemination in South Vietnam.[19] The contract was a crash programme to produce large quantities of the bacilli that induce plague and tularaemia.

Though there were no official charges in all these cases, there have been specific allegations that biological weapons were used against vegetation. According to the North Vietnamese News Agency report of 17 October 1966, some larvae of killer insects were let loose on September 1966 on the Cham Thanh district of Tan province. Route 21 from Duong Zian Hoi to Vinh Cong was affected. All the rice, plants, fruit trees and orchards in a band of 2 kilometers were destroyed.[20] Similar incidents had apparently occurred in mid-August in the villages of Huong My, Minh Duc and Cam Sun in the district of Nycay, Mekong Delta. Around the village of Huongny, 40 hectares of young plants were killed. However, in comparison to chemical weapons in Vietnam, the use of biological weapon was less in volume and effect.

The US was not the only one accused of using biological weapons. It is alleged that the erstwhile Soviet Union supplied biological weapons, mainly fungal toxins (Mycotoxins) to government forces, to kill dissident tribal people and enemy soldiers in Laos, Cambodia, and Afghanistan. Though the charges were denied by the Soviet government as well as by the other governments involved, the first major public pronouncement on the subject was made by former US Secretary Alexander Haig on 13 September 1981. He claimed that the US had

obtained good evidence that in addition to a traditional lethal chemical agent, three potent Mycotoxins had been used. The evidence came from the analysis of leaf and stem samples from Cambodia which revealed the use of high levels of mycotoxins. The levels detected were up to twenty times greater than any natural outbreak.[21] Reports of incidents in which fungal toxins were being used against Laotians and Cambodian villagers became more numerous between 1979 and 1981.

The two major publications on mycotoxin weapons were issued by the US State Department in 1982. The first report referred to 261 separate attacks in Laos in which 6,504 deaths are alleged to have occurred and 124 attacks in Cambodia causing the death of some 981 persons.[22] The second report issued by the US State Department alleged the use of mycotoxins and provided the results of analyses on blood and urine samples obtained from the victims. Again by analysis of two contaminated Soviet gas masks acquired from Afghanistan the evidence of mycotoxins use was confirmed.[23] Casualties caused by mycotoxins use are not known in Afghanistan.

The old arguments against the effectiveness of biological warfare still apply. The effects of novel organisms would still be delayed, unpredictable, and difficult to control. In military terms, any advance is almost certainly not a matter of the routine use of bio-technology. Whatever the fact, this double edged weapon still acts like a deterrent against any kind of conventional attack. Empirical evidence suggests that the likelihood of such a war between technologically advanced states is remote as since 1945, the biological weapons have been used only in situations where the victims were unprotected and unable to retaliate.

Endnotes

1 SIPRI, *The Rise of CB Weapons: The Problems of Chemical and Biological Warfare Series*, Vol. I, Humanities Press, New York, 1971, p.215.

2 There are different theories regarding the 'intent' behind the infected gifts and the consequences. See, R. G. Robertson, *Rotting Face : Smallpox and The American Indian, Caxton Press,Caldwell(Idaho), 2001, pp.123-124;*

Also See, Barbara Alice Mann, *The Tainted Gift: The Disease Method of Frontier Expansion, Praeger, 2009, p.12*

3 Frederick R. Sidell, Ernest T. Takafuji, David R. Franz, (eds), *Aspects Of Chemical And Biological Warfare*, TMM Publications, Washington DC., 1997, p.31.

4 J. Cookson, and J. Nottingham, *A Survey of Chemical and Biological Warfare*, Sheed and Ward, London, 1969, 54.

5 See a discussion on the typhus experiments in Buchenwald, Trebilinka and Dachau camps in Naomi Baumslag, *Murderous Medicine: Nazi Doctors, Human Experimentation, and Typhus*, Praeger, 2005, p.59.

6 B.J. Bernstein, "Churchill's Secret Biological Weapons, "*Bulletin of the Atomic Scientists*, Vol.43, January-February 1987, p.50.

7 Cookson and Nottingham, *A Survey of Chemical and Biological Warfare*, p.296.

8 S. Murphy, et al., *No Fire, No Thunder*, Pluto Press, London, 1984, p.32.

9 Cookson and Nottingham, *A Survey of Chemical and Biological Warfare*, p.297.

10 Ibid., p.57.

11 SIPRI, *The prevention of CBW: The Problem of Chemical and Biological Warfare Series*, Vol.V, Humanities Press, New York, 1971, p.240.

[12] Ibid., p.242.

[13] Ibid., p.250. Also cited in David Rees, *Korea: The Limited War*, Penguin Books, 1970, p. 359.

[14] Cookson and Nottingham, *A Survey of Chemical Biological Warfare,* p.58.

[15] SIPRI, *The Rise of CB Weapons Today*, p. 226.

[16] Ibid., p. 64.

[17] Ibid., p.63.

[18] Seymour Melman, *Pentagon Capitalism: The Political Economy of War*, McGraw-Hill, 1970, p.145

[19] Cookson and Nottingham, *A Survey of Chemical and Biological Warfare*, p.65.

[20] Ibid., p.67.

[21] Murphy, et al., *No Fire, No Thunder*, pp.49-50.

[22] Ibid., p.52.

[23] SIPRI, *World Armament and Disarmament: SIPRI Year Book 1983*, Almqvist & Wiksell, Stockholm, 1983, pp. 394-5.