# Biological and Chemical Warfare- an African perspective: Part 1 By Dapo Ladimeji

# August 2018

This is the first of a multi-part study of BCW and Africa)

Biological and Chemical warfare (BCW) has been much discussed but seldom from an African perspective. Many people assume that apart from some hideous people in South Africa there has not been any use of BCW in Africa. Nothing could be further from the truth. In fact every single country that has been involved in invading Africa has at some point used BCW weapons against people on the continent of Africa.

# **BRIEF HISTORY OF BCW**

# Pre-WW1

Among the early uses of BCW was the use of cadavers of plague victims being thrown over city walls, poisoning of wells and use of obnoxious smoke a precursor to gas warfare. Ancient Chinese, Athenians, Spartans all used BCW. Leonardo Da Vinci proposed both chemical weapons and designed a preventative mask. Pizarro used biological weapons - small pox - against indigenous people of south America. British used biological agents against Native Americans. George Washington used small pox during the US Revolutionary War. Numerous proposals of chemical warfare were made during the American Civil War. Confederates left dead animals in wells while retreating. British used them in the Boer War.

# WW1

During WW1 many types of gas were experimented with by all sides. Specifically anti-animal bow weapons were also developed. US began exploring use of ricin coated shrapnel in 1918. Mustard gas was a particularly venomous agent.

"The armistice of November 1918 ended the world's first chemical and biological war. Of the approximately 26 million casualties suffered by the British, French, Russians, Italians, Germans, Austro-Hungarians, and the Americans, some 1 million were gas casualties. Of the total 272,000 U.S. casualties, over 72,000 were gas casualties, or about one fourth. Of the total U.S. gas casualties, approximately 1,200 either died in the hospital or were killed in action by gas exposure. There were no casualties or deaths attributed to biological warfare. 40 Thus the U.S. Army completed its introduction." (Note 1)

# Post - War (WW1)

After WW1 the Japanese general Ishii toured Western countries. US review reports: "In 1928, a Japanese officer by the name of Shiro Ishii began promoting biological warfare research and took a 2-year tour of foreign research establishments, including the United States. After his tour, he concluded that all the major powers were secretly researching biological warfare." (Note 2)

Spanish and French forces use bow against Berbers in Morrocco in 1020's (Note 3)

During the inter -war years US officially deny any efforts at biological warfare though it made extensive efforts in chemical warfare preparation. Its official view of biological weapons was that of Amos Fries, Chief Chemical Officer who wrote in 1926:

"The subject of bacteriological warfare is one which has received considerable notice recently. It should be pointed out in the first place that no method for the effective use of germs in warfare is known. It has never been tried to any extent so far as is known." (Note 4)

This view was not shared by other countries:

"The next year the German Military Bacteriological Institute in Berlin began developing anthrax as a biological weapon, while the Agricultural Hochschule in Bonn examined the spraying of crops with bacteria." France, Britain and Canada began research in earnest as did Japan. It is reported that Germany covertly trialed agents in the Paris Metro" (Note 5).

During the Italian invasion of Ethiopia Italians used BCW extensively:

"Italians used chemical weapons, primarily mustard gas, despite having signed the 1925 Geneva protocol:

"Special sprayers were installed on board aircraft so they could vaporize over vast areas of territory a fine, death-dealing rain. Groups of 9, 15, or 18 aircraft followed one another so that the fog issuing from them formed a continuous sheet. It was thus that, as from the end of January 1936, soldiers, women, children, cattle, rivers, lakes, and pastures were drenched continually with this deadly rain. In order more surely to poison the waters and pastures, the Italian command made its aircraft pass over and over again. These fearful tactics succeeded. Men and animals succumbed. The deadly rain that fell from the aircraft made all those whom it touched fly shrieking with pain. All those who drank poisoned water or ate infected food also succumbed in dreadful suffering. In tens of thousands the victims of Italian mustard gas fell." (Note 6)

A US observer with Ethiopian forces commented:

"Captain Meade, a US observer with Ethiopian forces concluded:

"It is my opinion that of all the superior weapons possessed by the Italians, mustard gas was the most effective. It caused few deaths that I observed, but it temporarily incapacitated very large numbers and so frightened the rest that the Ethiopian resistance broke completely." (Note 7)

As WW2 approached US chemical warfare preparation rapidly escalated. Expenditure jumped from \$2m to \$60m and US had over 400 Chemical battalions.

"Approximately 146,000 tons of chemical agents was produced by the United States between 1940 and 1945." (Note 8)

# WW2

As WW2 began US took a no first use policy.

"President Roosevelt established a no-first-use policy for chemical weapons early in the war. In 1943, this was reiterated in an official statement: "We shall under no circumstances resort to the use of such [chemical] weapons unless they are first used by our enemies." The policy was backed up by a statement of warning: Any use of gas by any axis power, therefore, will immediately be followed by the fullest possible retaliation upon munition centers, seaports and other military objectives throughout the whole extent of the territory of such axis country. Neither Germany nor Japan chose to initiate chemical warfare with the United States." (Note 9)

Despite these assurances US seriously considered first use of chemical weapons against Japan towards the end of the war. One report advocated as follows:

"Gas is the one single weapon hitherto unused which we can have readily available and which assuredly can greatly decrease the cost in American lives and should materially shorten the war" (Note 10) The use of the atom bomb ended this discussion.

US heightened its biological war preparations in respect of Japan,

"The apparent use of cholera, dysentery, typhoid, plague, anthrax, and paratyphoid by the Japanese against Chinese troops finally led to an American decision to conduct research and establish a retaliatory biological warfare capability. "(Note 14)

US post war view of biological warfare was expressed by Major General Alden Watt: "The tremendous potentialities of biological warfare in the future demand that the necessary tactics and employment in the field be worked out well in advance so that such means may be used immediately and effectively once a decision to do so is made. It is essential that Chemical Officers on the staffs of divisions and higher units, including equivalent Army Air Force elements, be in a position to advise their Commanders relative to the capability, limitations and means of protection against this new method of attack. Further, they must be able to prepare suitable offensive and defensive plans and to supervise such training of troops in these methods as may be required." (Note 11)

The new post war focus was on nerve agents, particularly sarin. Chemists at ICI discovered a new nerve agent 1,000 times more toxic than sarin known as VX.

"A drop the size of a pinhead on bare skin could cause death within 15 minutes." (Note 12)

#### **Korean War**

During the Korean war there was hot debate in US about first use of chemical weapons. One officer wrote:

"The use of mustard, Lewisite and phospene in the vast quantities which we are capable of making and distributing offers the only sure way of holding Korea at the present time. We are not playing marbles. We are fighting for our lives. Let's use the best means we have to overwhelm the enemy scientifically and intelligently." (Note 13)

# **COLD WAR**

During the cold war biological research grew rapidly:

"During the 1950s, the biological warfare program was one of the most highly classified programs, owing to its nature and the ongoing Cold War, and many of the details of the program have never been declassified. " (Note 15)

# **AFRICAN CONTEXT**

The Portuguese used BCW extensively for counter-insurgency purposes:

"The Portuguese military were the first to use CBW for counterinsurgency warfare in Africa. Portuguese troops poisoned wells and threw drugged prisoners out of aircraft. South African military officers were dispatched to Portuguese Army units in Angola to gain experience in counterinsurgency warfare. In general, South African military personnel were not impressed with the overall effectiveness of Portuguese counter-insurgency programs. However, officers who worked in Angola did learn first-hand how the Portuguese military used defoliants and napalm, mined trails, and poisoned water holes as tactics to counter their guerrilla enemies without having to engage in direct combat." (Note 16)

South Africa cooperated with Israel in bow and nuclear development; as they saw each other as settler societies under attack; South Africa also worked with French Algerians and Portuguese colonialists and trained Rhodesian security personnel. They sought to adopt British counter-insurgency tactics developed in Malaya and Kenya.

"The SAP (South African Police) trained Rhodesian intelligence personnel and, later, the Selous Scouts in mine laying and other counter-insurgency techniques. The SAP acquired some of their techniques from the French in Algeria." (Note 16)

Later South Africa began developing a BCW capacity in earnest:

"In 1981, General Constand Viljoen, SADF Chief of Staff, requested that the CBW program provide SADF with agents for crowd control in South Africa. Other possible uses considered included counter-insurgency, assassinations, and black population control. It is noteworthy that, during the process of launching the CBW program, no delegation from South Africa appeared at the 1980 review conference for the 1975 Biological Weapons Convention." (Note 17)

"Anthrax, cholera, botulinum, and a variety of pathogens were collected and/or developed at RRL and elsewhere for testing" (Note 18)

A US report concluded:

"It appears that, from the start, Project Coast was not just a idefensive program.i59 In the early 1980s, fears of a iblack tidal wavei drove white scientists to try to develop a variety of means that could ensure the survival of white South Africa. Plans were devised to build a large-scale anthrax production facility at RRL. The anthrax could have been used either outside or inside South Africa, particularly where guerrillas were present. According to former RRL scientist, Mike Odendaal, who testified in the Basson trial, those plans were nearly operationalized in 1985. Also, reportedly part of Project Coast was genetic engineering research, which was being conducted to produce a black bomb, bacteria or other biological agents that would kill or weaken blacks and not whites. The black bomb could be used to wipe out or incapacitate an entire area where an insurrection was taking place.60 Project Coast scientists asked Basson to obtain a peptide synthesizer outside of South Africa that would assist in genetic engineering efforts." (Note 19)

Clandestine and sometimes open assistance was granted from UK and US to this BCW program. "According to RRL scientist Schalk van Rensburg, when Basson wanted the safety level raised to level 4, two British scientists, on an unauthorized visit from Porton Down, UK (which had been privatized) helped and advised." (Note 20)

US attitude was more open and provocative:

"" From 1981 to 1986, the Reagan administration followed a policy of constructive engagement. Reagan administration officials sent signals to the Botha regime that the U.S. was willing to turn a blind eye to American industries and scientists as the South Africans built up their defense industries. Under-Secretary of State William Clark went one step further and welcomed South African defense officials and experts to Washington and facilitated their interaction with U.S. counterparts. The attitude of Clark and others enabled South Africa to gain access to U.S. scientists. "(Note 21)

As the apartheid regime entered its last days Project Coast became engulfed in massive corruption and money laundering.

"As Basson and his closest associates skimmed millions of dollars from Project Coast activities, he and his American accountant, David Webster, developed an elaborate web of foreign shell companies to launder the money." (note 22)

Basson sought to obtain immunity or protection by providing details of his research to the US. However there is evidence that a former member of basson's staff had already traded such information to the US in return for his own protection and cover much earlier. Consequently Basson was left out to dry.

It is has recently been discovered that the British trialled biological weapons in secret in Nigeria in 1950's:

"The new research reveals, for the first time, that in another British imperial possession, Nigeria, a location was found for chemical warfare field trials. In an area called Obanaghoro in southern Nigeria, four British Cold War scientific missions spent a total of around 15 months dispersing, and assessing the effects of, large quantities of experimental nerve gas weapons. The advantage of the location was that it permitted field trials to be carried out in a tropical environment – and, of course, that it was not in Britain or Australia.

""Officials had clearly good reasons as to why the kind of experiments undertaken in Nigeria were strictly prohibited on the British mainland, which is why the files and photographic records surrounding Britain's post-war nerve agent testing in Africa were regarded as particularly sensitive," he said." (Note 23)

# **Terrorism**

"In 1994, a Japanese religious cult, Aum Shinrikyo, reportedly released nerve agent in a residential area of Matsumoto, Japan, that killed 7 and injured 500. A second attack on 20 March 1995 spread sarin through a crowded Tokyo subway. This act of terrorism killed 12 and caused more than 5,500 civilians to seek medical attention. After the attacks, news accounts reported that the cult had developed a helicopter to spray toxins, a drone for unmanned chemical and biological attacks, and their own strains of botulism. They had also allegedly attempted to obtain the Ebola virus from Zaire. Chemical and biological terrorism was not limited to foreign countries. The first conviction under the Biological Weapons Anti-Terrorism Act of 1989 occurred in 1995, when a U.S. citizen was sentenced to 33 months in prison for possession of 0.7 g of ricin. The same year, a nonprofit organization shipped plague bacteria, Yersinia pestis, to an alleged white supremacist." (Note 24)

# **SUMMARY & CONCLUSIONS**

This has been a very brief summary of the history of BCW based on readily available and authoritative sources. This amount of detailed repetition of sources may be felt unnecessary by some but for many Africans the scale will be beyond their belief so it was felt necessary to engage in such detail.

What this review has shown is that every foreign country involved in wars on African soil has used BCW against the people on the continent. Despite non-proliferation treaties and apparent UN sanctions both US and UK provided assistance to apartheid South Africa's BCW program. It would appear that the focus on non-proliferation merely allows other major powers to use surrogates/clients more effectively by clandestinely assisting them to obtain BCW capacity. The ability of white supremacist to obtain deadly ingredients easily within the US must be a matter of grave concern.

Insufficient attention has been paid to these issues and no serious debate has been engaged on an appropriate African response. Almost all Western debate is about any risk FROM Africa while no attention is paid to the risk TO Africa. With the spread of terrorist organisations Africa's lack of preparation for a BCW attack is scandalous. The ability to detect and protect is essential. If even first line defenders cannot be protected then entire countries of Africa are at the mercy of any terrorist for the recipes for basic bew are readily available. Subsequent articles will seek to explore specific issues arising.

# Notes

- 1.MEDICAL ASPECTS OF CHEMICAL AND BIOLOGICAL WARFARE By Borden Institute 1997 p.24 (Borden)
- 2. Borden op.cit p.29
- 3. https://www.counterpunch.org/2013/09/02/a-short-history-of-bio-chemical-weapons/
  "1920s: Spanish and French forces use mustard gas against Berber rebels in Spanish Morocco. Britain proposes use of chemical weapons in Iraq "as an experiment" against Arab and Kurdish rebels seeking independence; Winston Churchill "strongly" backs the proposed "use of poisoned gas against uncivilised tribes,"
- 4. Borden op.cit p.28
- 5. Borden op.cit p.32
- 6. Borden op, cit p.34
- 7. Borden op.cit p.35
- 8. Borden op.cit p.38
- 9. Borden op.cit p.44

- 10. Borden op.cit p.45
- 11. Borden op.cit p.45
- 12. Borden op.cit p.49
- 13. Borden op.cit p.48
- 14. Borden op.cit p.43
- 15. Borden op.cit p.50
- 16. The Rollback of South Africaís Chemical and Biological Warfare Program By: Dr. Stephen F. Burgess and Dr. Helen E. Purkitt (BURGESS) ( <a href="https://www.globalsecurity.org/wmd/library/report/2001/southafrica.pdf">https://www.globalsecurity.org/wmd/library/report/2001/southafrica.pdf</a> ) p.7
- 17. Burgess op.cit p.17
- 18. Burgess op.cit p.20
- 19. Burgess op.cit p.21
- 20. Burgess op.cit p.25
- 21.Burgess op.cit p.29
- 22. Burgess op.cit p.35
- 23.

https://www.independent.co.uk/news/uk/politics/how-the-british-government-subjected-thousands-of-people-to-chemical-and-biological-warfare-trials-10376411.htm

24. Borden op.cit p.75