# **Invited Articles**

### NBC Weapons: How free is Africa of the scourge?

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#### Summary

The entry into force of the Africa's Nuclear Weapon Free Zone Treaty or the Treaty of Pelindaba in July 2009 and the first conference of parties on November 4, 2010 is a big step towards making the African continent free of the scourge of nuclear weapons. The Treaty of Pelindaba seeks to ensure that nuclear weapons are not developed, produced, tested or otherwise acquired or stationed anywhere on the African continent or its associated islands. At the same time the treaty provides for the promotion of cooperation in the peaceful uses of nuclear energy on the African continent. Though Sub Saharan Africa is free of nuclear weapons programmes, many African countries have peaceful nuclear facilities and radioactive sources.

The entry into force of the Africa's Nuclear Weapon Free Zone Treaty or the Treaty of Pelindaba in July 2009 and the first conference of parties on November 4, 2010 is a big step towards making the African continent free of the scourge of nuclear weapons. The Treaty of Pelindaba aims "to ensure that nuclear weapons are not developed, produced, tested or otherwise acquired or stationed anywhere on the African continent or its associated islands"1. At the same time the treaty provides for the promotion of cooperation in the peaceful uses of nuclear energy on the African continent. Though Sub Saharan Africa is free of nuclear weapons programmes, many African countries have peaceful nuclear facilities and radioactive sources. Furthermore, there are serious concerns about the adequate protection and management of materials that are present and utilised in the commercial and biological industries and research laboratories in the region. In particular South Africa maintains an extensive animal vaccine production and pharmaceutical industry, according to the UNSC Resolution 1540 Database. It also has a "very advanced chemical and microbiological research and development capacity".<sup>2</sup>

#### **NBC Status**

At present if one follows the IAEA records, four Sub Saharan countries have nuclear facilities- Democratic Republic of Congo (DRC), Ghana, Nigeria and South Africa.<sup>3</sup> The DRC has Triga II research reactor at the University of Kinshasa. Ghana obtained a slowpoke type reactor from China with the assistance of IAEA according to the UNSC Resolution 1540 Database. Nigeria has a tank in pool type Miniature Source Reactor (NIRR-1) that uses 90 percent enriched Uranium as fuel. It also has plans to purchase a slow poke type type reactor from China through the IAEA.<sup>4</sup> Of the countries in the region South Africa has the most advanced nuclear programme on the continent with two power reactors and a tank in pool research reactor.<sup>5</sup> South Africa aims for the expansion of nuclear energy production from 6 percent to 30 percent by 2020. A number of sub Saharan countries also possess uranium reserves. According to the UNSC Resolution 1540 Database, the major producers are South Africa, Namibia, Niger and Gabon. Others like Republic of Congo, Central African Republic, Guinea, Malawi and Zambia possess minor reserves. Though Sub Saharan countries are free of any nuclear weapons several states have peaceful nuclear programmes and radioactive material sources. Hence protection of these programmes is an issue of concern.

Similarly the African countries have to take care of the protection and management of materials utilised in commercial chemical and biological industries in the region. South Africa and Nigeria are the main African countries involved in such research. Currently dismantled, South Africa had an active chemical and biological warfare programme during Apartheid era called "Project Coast". It was headed by infamous Dr.Wouter Basson, nicknamed "Dr. Death' for his role in killing political dissidents through this programme. South Africa's Truth and Reconciliation Commission investigated Basson's role in the project, however he was later acquitted of all criminal charges, in part, due to a general amnesty.

## Adherence to Treaties and Agreements

Sub Saharan African countries' record in terms of adherence to various non proliferation regimes is somewhat mixed. All countries are party to the NPT and majority are party to the Chemical Weapons Convention (CWC). The CWC was signed in 1993 and entered into force in 1997. The CWC is of unlimited duration and obliges state parties not to develop, produce, acquire, stockpile, transfer, use or prepare to use chemical weapons. Currently 46 states in the region are party to the CWC. With 100 percent destruction of CW in the region the Organisation for the Prohibition of Chemical Weapons (OPCW) is at present involved in Africa primarily on capacity building in areas of peaceful application of chemistry through an exchange programme. On the other hand it was only thirteen years after its existence that the Pelindaba treaty entered into force in 2009. As of now 29 states have ratified the treaty. However some of the blame also lies on the Nuclear Weapon States (NWS). At present of the five NWS it has been ratified only by France, China and UK. The reticence of US and Russia is linked to the atoll Diego Garcia in the Indian Ocean. While UK and US insist that Diego Garcia is not geographically part of Africa, African Union (AU) insists that Diego Garcia is part of Mauritius, which is turn in an AU member and therefore should be included in the treaty.

The Biological and Toxin Weapons Convention (BTWC) opened for signature in 1972 and entered into force in 1975. It prohibits the development, production, acquisition, transfer, retention and stockpiling of biological weapons and toxins.<sup>6</sup> Thirty African states are party to the BTCW at present. The problem with biological agents is that all materials are dual use goods which mean they are hard to detect. Misuse of biological agents could take a much greater toll on any population by way of increased illnesses, long term disability and/or death. These concerns have grown in recent years with the realization that deadly diseases like Ebola, Marburg, and anthrax are prevalent in Africa. These pathogens can be made into weapons and is a threat that cannot be ignored. Apparently Soviet scientists used pathogens from Africa to make biological weapons during the Cold War.<sup>7</sup> With the knowledge that Al-Qaeda and other terrorist groups are active in Africa, it becomes imperative that the deadly pathogens stored in labs in countries such as Uganda and Kenya are secure.

However a cursory survey within Africa shows that national legislations incorporating CWC and BTCW are lacking within most of the countries in the region. According to a recent study, there is no information available on the status of implementation legislation in 15 of the 30 CTCW state parties in Africa.<sup>8</sup> The remaining 15 state parties: Cape Verde, Democratic Republic of Congo. Equatorial Guinea, Ethiopia, Ghana, Kenya, Libya, Mauritius, Nigeria, Senegal, Seychelles, South Africa, Tunisia and Zimbabwe have some measures or legislation that partly implements the BTCW have been adapted.<sup>9</sup>. Similarly Nigeria recently reiterated that it is committed to the Biological Weapons Convention and has produced draft bills for the national implementation of BWC and CWC.<sup>10</sup> There is no doubt that African countries need to address the deficiencies in the existence and scope of national implementation legislation on priority basis not only to comply with the obligation under BTWC but also avoid the development of biological weapons in the country. With the seventh BTCW Review conference scheduled in 2011, the African countries have no time to waste.

In conclusion, it appears that physical protection and safeguarding of NBC materials must remain top priority within Africa. African countries must work at both national and regional level to assure the adequate protection and management of materials that are present in the region. However it needs to be understood that most African countries have more urgent matters to deal with. Genocide, food security, health issues such as spread of HIV/AIDS, conflict resolution and other pressing concerns have affected ability and desire to implement national legislation for non proliferation regimes. As a result nuclear biological and chemical weapons non proliferation remains a low priority for Africans.

#### **Endnotes:**

- <sup>1</sup> Amelia Broodryk and Noel Stott, Major Boost for Africa's Quest to be Nuclear Weapon Free, available at http:// www.the-african.org/blog/?p=311
- <sup>2</sup> NTI Data Base, Sub Saharan Africa- 1540 related regional activities at http// www.nti.org/db/1540/ region\_subsahara.html
- <sup>3</sup> Ibid
- 4 Ibid
- <sup>5</sup> Ibid

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- <sup>6</sup> Biological Weapons Convention, UNOG, http://www.unog.ch/
  80256EE600585943/(httpPages)/
  04FBBD6315AC720C1257180004
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  - "US seeks to aid Africa in securing deadly antigens" NTI Global Security News wire, November 4, 2010
- Angela Woodword, "Banning biological weapons, National legislation in Africa " African Security Review vol. 14, no.1, 2005 p.26
  - Ibid
- <sup>10</sup> "Nigerian government says committed to Biological Weapons Convention" Xinhua October 7, 2010