

Berbera Military Base

The Promise and the Peril

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Military activities are believed to be the most hazardous producing activities, in the world. This paper aims to review the potential adverse impact on public health and environmental risks associated with military bases in general, focusing on the proposed military base in Berbera, Somaliland. The paper will discuss some of the most critical aspects associated with the proposed military base, including environmental contamination and health risks. The paper will also examine the vulnerability of Somaliland to deal with toxic and hazardous substances using Daar Buruq tragedy as a case study and will assess the level of risk, using a detail risk assessment. Finally the paper will recommend some vitally important steps to tackle the problem in hand through an implementation integrated approach such as that of triple-bottom-line approach to address and balance economic, social and environmental matters in order to achieve the sustainable development Somaliland is aiming for.

Key words: toxic material, hazardous waste, radioactive wastes, Daar-Buruq, leather industry, environmental pollution, contamination, health & environmental risk, risk management, environmental impact assessment, triple-bottom-line, sustainable development.

Introduction

This article is aimed to raise awareness among stakeholders about the potential hazard associated with military bases. Military activities are known to generate huge volume of hazardous, toxic and radioactive wastes. To save money, foreign military establishments usually avoid establishing adequate health and environmental management particularly when they are operating in developing countries.

Hazardous waste:

Hazardous waste can be any substance that causes considerable harm to human, properties or to the environment. Hazardous waste can be a solid,

liquid, gas or any contamination thereof and is generally produced in a large quantity at military installations. Some reports have estimated that one base alone could generate more than 400,000 tons of hazardous waste per year.

Toxic waste:

Toxic waste are poisons, even in very small or trace amounts. They may lead to an acute effect, causing death or violent illness, or they may have chronic effects, slowly causing irreparable harm. Some are carcinogenic, causing cancer after many years of exposure. Other are mutagenic causing major

biological changes in the offspring of exposed human and wildlife.

Radioactive waste

Emitted ionizing energy harm living organisms. Most of radioactive materials are persistent in the environment for years before becoming fully decayed or disintegrated into inert matter. But until then the imminent threat of inflicting harm is significant.

Health and Environmental Risks on Military Bases

In the light of the above review, military installations will generate massive toxic and hazardous byproducts with the potential to cause tremendous and long-term health and environmental implications. These threats become of high significance, particularly if toxics are not well controlled. On this basis, this article is aimed to shed light some of the social and environmental risks that could arise as result of the proposed military base at Berbera, Somaliland. My interest is therefore, for the government of Somaliland, opponents and other stakeholders, including the local community, to learn something about the risk of military base they may not know about before reading this article and subsequently find common ground.



Figure 1: Berbera Airport

Some of the questions people are asking are as below;

- *Whether the military base economic gain the so call the quid pro-quo can justify sacrificing the health and environmental values? and*
- *How best can we live safely with such risky activities?*

Effects of toxic substances on health and environment

As already mentioned, this base has the potential to cause tremendous and long-term health and environmental implications, therefore if the plan failed to consider social and environmental factors the health of local population and their environment will suffer. The significance of toxic risk on the environment depends on many factors, including the ability of toxic substances to migrate through environmental media and the proximity of sensitivity receptors. Toxic substances migrate faster in a hot climate such that of Berbera. It is therefore prudent to have appropriate control measures to mitigate the associated risks, relocate the project or the receptors. History portrays that the only outcome from military bases in many of the third world countries is nothing but long term health and environmental degradations. Therefore, if the we have any sense of responsibility for the public wellbeing and the quality of the environment, we must not accept these damaging activities and therefore learn from the outcomes. The government shall inform and ask the client to put their project in order with regard to toxic byproduct into the environment. They shall evaluate and establish full environmental and social implications before we suffer a long term consequences much more than of Daar-Buruq.

Daar-Buruq

Toxic waste from military bases is more dangerous and therefore, cannot be in any way compared with those of other industrial process such as those of leather but it is good to point out the everlasting and accumulated toxic wastes caused by leather factories

in Somaliland, particularly the dangerous dumping sites left behind by the Chinese factory in Daar-Buruq. Preliminary environmental study conducted in 2014 at the Chinese facility revealed a mysterious discharge and dumping of untreated toxic wastes into the ambient environment. The report has confirmed how released toxic gases such as Hydrogen Sulfide (H₂S) and Ammonia (NH₃) into the atmosphere has ruined the ambient air quality of the area, how the hazardous effluent has contaminated both the groundwater and the river, the only two sources of drinking water for the nearby villages. While the solid hazardous waste was left piling in an uncontrolled open site it has also threatened the community and their livestock and environment.

The inhabitants of Daarbuduq village, local farmers and nearby herdsman have all complained of suffering health, environmental and economic damages. Leather factories in this area have jeopardized the two main sources of drinking water (river and groundwater) resulting in its unfitness for human consumption. This illegal dumping has forced local community to source water elsewhere, such as Laas-Geel through tankers with a higher price.

One must recognize that the risks associated with the military base resulting from toxic wastes will be much greater than that of Daar-Buruq leather factories and it will affect both those alive today and future generation. Admittedly, it may be difficult or impossible now to cancel the project due to number of reasons. However, we must understand that small economic gain does not eradicate the associated health and environmental risks. This problem is inevitable because our government have failed to include socio-environmental considerations into the planning stage.

The social and environmental situations associated with military bases are factual and dangerous on account of their intense toxicity should they come in contact with human, animal or the ambient

environment. The probability of an accident occurring any time during the life time of this project is of a high probability. The risks are even higher when dealing with unexploded ordnance, ammunition wastes, organic solvent spill, chemical warfare agents, military sludge, pesticides, acids, waste oils, radioactive wastes, PCBs, soil pollution, and ground water contamination are all believed to be associated with the military activity. Although these chemical, biological and physical byproducts are found at all military bases, but the risk is only high where there is direct interaction between the source and the receptor. Based on some scientific reports, the average life expectancy of people resident in the proximity to toxic or hazardous dumping sites could be affected. Some of the common diseases are said to be childhood leukaemia, children born with defects and cancer to young and old people living close to toxic dumping sites.

The behaviours of foreign military

Conventionally, foreign military are known to be unenthusiastic towards the health and environmental of countries they are operating in. They generally give no attention to treat or manage toxic or hazardous wastes (i.e. incinerator or effluent treatment units) produced by their activities. They deliberately release, dump, or discharge toxic substances into the ambient environment without prior treatment, and occasionally they burn the toxic materials in pits on landfill. These options are preferred because it is cheaper for them as long as the authority gave their blessing. Contamination also occur due to negligence because of a leak or spill of chemicals. To date, Somaliland government imposes no rate or restrictions of discharging of toxic or hazardous waste into the ambient environment; therefore, industries including military base, leather, hydrocarbon, beverages enjoy making a huge profit on the expenses of the poor.

Therefore, to answer the aforementioned question regarding if the little economic gain can justify losing the health and environmental values we can

establish that this is an immoral trade, which would not be accepted by any sensible human being. But a win-win balance can be achieved only if the client is told to take proper care to control discharges and dispose of toxic and hazardous wastes.

To find a way out for this problem, while keeping an eye on the need for sustainable development, requires a political will to undertake a full environmental and social impact assessment of the project. This will establish facts about the level of the hazard associated with the base, who may be at risk and then to recommend the best environmental practices to mitigate such a threat. I strongly believe that a win-win could be achieved but only if integrated system is applied to balance social, environmental and economic factors.

Four main recommendations include

(1) Comprehensive environmental and health impact assessment prior construction, installation and operational of the military base to harmonise long-term coexistence of the base with the public and the environment.

(2) Design and implement adequate environmental management system to control and monitor emissions and discharge whether it is to air, land or marine. Berbera municipality should play an effective role to assure hazardous waste from the military base is treated to an acceptable level, transported and disposed of in line with the international best practices.

(3) Develop a comprehensive environmental restoration program to respond to emergency cases such as spill of hazardous materials, fire...etc;

(4) Conversion of the base-land for equitable and ecologically sustainable development. Also, locally service providers must also protect health and the environment of this region.

Conclusion

The health and environmental problems associated with military bases can be summed up by two:

problems that occur during construction phase and those that occur during the operational phase. During construction, the project's carbon foot print goes beyond the local area, destruction of forests, taking land for security reasons and construction waste where the main concern issues. However, the health and environmental risks associated with this phase is far less than that of the operational phase. The majority of impacts to the health and environment of the military activities will be associated with the operational phase, where dumping and discharge of toxic and hazardous materials is taking place. We all understand that treating and appropriately disposing of these toxic wastes entail a substantial financial burn on the client but we must also understand the health and the lives of our people are at stake. Furthermore, the value of our environment is worth more than any dollar value. This basically authenticates the saying that says "*Beriberi wax Go lagu qaado ka weyn*". On this basis, it is obvious that benefits from the military base will only be justified if adequate measures are incorporated into the plan to protect social and environmental factors. According to Principle 4 of the Rio Declaration to achieve sustainable development, both social and environmental protection shall constitute an integral part of the development process."