

DUMPING ON SOMALIA: A PLEA FOR ENVIRONMENTAL JUSTICE

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We do not weave the web of life, we are merely strain of it; what ever we do to the web, we did to ourselves – Brian Stacey

ABSTRACT

This paper discusses toxic waste dumping in Somalia and the regulatory framework of the treaties of transboundary movement. I will argue that the Basel and Bamako Conventions have failed to protect developing countries from abuse by the developed world. The impact on community, health, environment, and international security of the hazardous waste dumping in Somalia will be examined. In addition, I will attempt to explore some of the factors contributing to the hazardous waste dumping in Somalia, and treaty violations of transboundary movement of hazardous waste. Further, I argue that degradation of the coastline by toxic waste dumping has had unanticipated consequences in motivating piracy. Lastly, I provide strategies and tactics that might end the practice.

INTRODUCTION

The Environmental Protection Agency (EPA) defines hazardous waste as “a waste with properties that make it dangerous or potentially harmful to human health or the environment” (EPA, 2008). In Somalia, hazardous waste is typically nuclear waste from developed countries, but also pesticides and other toxic by-products that have been shipped to Somalia. The generation of hazardous waste in developed countries has increased and its disposal cost has risen sharply. The United Nations Environment Program (UNEP) estimates that industrialized countries generate about 90 percent of the world’s hazardous wastes (UNEP, 2005). According to

UNEP, in the 1990s, the developed countries produced approximately 440 million metric tons of hazardous waste annually. Eighty percent of that waste is produced by member countries of the Organization for Economic Cooperation and Development (OECD), an organization of the richest and most highly developed countries in the world. (Lipman, Rummel-Bulska) EPA estimates that the U.S. generates 279 million tons of hazardous waste per year. (EPA, 1998) Italy generates between "forty and fifty million tons of industrial waste and sixteen million tons of household waste each year," most of which is believed to be sent abroad to third world countries for disposal. (Poropat, 1) It is not surprising that Italian firms, in collaboration with other European companies, are actively searching to make deals to identify potential takers of this waste.

The exploitation of nuclear and hazardous waste dumps in Africa, especially in Somalia, has been on the rise for the past two decades. International "waste merchants" and organized crime groups like the Mafia have found cheaper ways to dispose of dangerous chemical waste material in the continent of Africa. Hazardous waste disposal within the OECD countries costs \$100 to \$2,000 per ton while in developing countries; it costs \$2.50 to \$250 per ton. (Lipman) These radioactive, toxic waste dumps are endangering human health, marine life and the ecosystem, and causing long-term environmental degradation.

THE BASEL AND BAMAKO CONVENTIONS

Enforcement measures need to be added to the regulatory framework of transboundary movement of hazardous waste. The Basel Convention is a significant and broad international treaty on hazardous waste. In 1989, the international community adopted the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal to protect third world countries from the exports of hazardous waste from

developed countries. (Asente-Duah) In 1992, the Convention began to gain impetus prompting 162 countries to ratify it by August 2004. Fifty-three of these are members of the Organizations of the African Union. (Igarashi)

The main goal of the Convention is to protect, through strict controls, the well-being of humans and the environment against the harmful effects that may result from the production, management, treatment, storage, and disposal facilities of hazardous and other wastes. (Asente-Duah) Italy and Switzerland are parties to the Basel Convention and ratified the treaty, but Somalia is not. Thus, the transporting of hazardous waste to Somalia is both immoral and illegal. Not only are Italy and Switzerland violating the treaty by shipping waste to Somalia, they are taking advantage of a country in political distress.

Equally important and with more regional specificity and significance is the Organization of African Unity's (OAU) adoption of a resolution banning the acceptance of industrial waste products by member states. The Bamako Convention bans the import of hazardous waste substances into Africa. (Rummel-Bulska, Lipman) Although it is based on the Basel Convention, it is stricter. In 1991, fifty-one African countries adopted the Convention at the Conference of Environment Ministers in Bamako, Mali. However, about half of the OAU members are non-signatories of the Basel Convention. (Mohamed) Despite the OAU's attempt to ban hazardous waste trade, some of its members have violated the ban. In addition, the major reason for the violation is believed to be based on economic constraints. (Mohamed) It is not surprising, as most African countries face enormous economic hardships, making these lucrative contracts remain attractive.

HAZARDOUS WASTE DUMPING IN SOMALIA: THE ACTORS INVOLVED

The involvement of European firms in hazardous waste dumping in developing countries has been happening for over twenty years. A notable example occurred in Lebanon in the late '80s. The Italian ambassador to Lebanon, Antonio Mancini, offered to pay \$3 million for clean-up costs for the removal of the waste when the issue was raised by the Lebanese Acting Prime Minister, Salim. But Lebanon demanded that Italy pay the whole cost. As negotiations bore no fruit, on June 23, 1988 an unidentified caller from the "Organization of Preserving the Lebanese Right" pronounced a threat that Italian interests in Lebanon are subject to physical attacks if the Italian government does not remove the wastes within a week. (Al-Ali) The caller's threat led to Italian clean-up action. By July, the waste was loaded onto two Italian vessels, and by mid-December, the Italian government officially announced that the waste would be shipped back to Italy. The Italian firm, Jelly Wax, was again allegedly involved in illegal chemical waste dumps in Lebanon between September, 1987 and June, 1988. (Al-Ali) The study reports that the firm supposedly shipped over 2,400 tons of chemical wastes to Lebanese ports outside of Lebanese government control, and additional barrels of waste were dumped at sea. In addition, 2,411 more tons of wastes were also discovered in East Beirut and its northern suburbs. (Al-Ali)

These types of unscrupulous activities have been carried out in other nations by similar brokers. In 1987, a series of dumpings occurred in Koko, Nigeria. In this case, Gianfranco Raffaeli and Renato Pent, representatives of the waste broker firms Ecomar and Jelly Wax had signed an illegal contract with a Nigerian businessman, Sunday Nana, the owner of the Iruokpen Construction Company. The Italian firms exported thousands of tons of extremely toxic and radioactive waste materials which

were labeled "substances relating to the building trade," where it was kept in drums in a backyard (Poropat, 1). Eighteen thousand drums of hazardous waste, constituting 3,800 tons of hazardous materials were imported, and stored on his property under the tropical sun for approximately \$100 a month. ("Dumping on the Developing World") Ultimately, the Italian government agreed to pay the shipment cost of the wastes back to Italy. Of course, it created a public uprising at the receiving end where the waste was to be unloaded. (Poropat)

It is believed that Somalia became a target for toxic waste deposit during the end of the 1980s. (Chiara and Scalettari) When the military regime was facing economic and political crisis, it got involved in a project called "URANO", in which the Italian Mafia is alleged to have been involved. (Chiara and Scalettari) This project started in 1987 in Milan and Rome and its purpose was to dispose of massive industrial waste, including toxic and nuclear wastes. The targets for disposals were three regions within the Sahara desert including Somalia. The report indicates that nations in conflict are easy targets due to their lack of national security, and land for disposal can easily be obtained in exchange for cash or weapons for the territorial struggle. In 1992, the international media exposed the hazardous waste dumping in Somalia. (Poaletta) Allegedly, a Swiss firm Achair Partners, and an Italian waste broker, Progresso negotiated a contract with Nur Elmy Osman, who claimed to be the Somali Minister of Health under Ali Mahdi Muhammad's interim and an unrecognized government. (Adam) However, Osman had been a health official in the previous fallen regime of Mohamed Siyad Barre, and was not officially named by Ali Mahdi Mohamed. (Poaletta)

In December 1991, Osman supposedly entered into an \$80 million contract with the two firms. (Adam, Poaletta) Subsequently, the firms would be allowed to build a ten million ton storage facility for hazardous

waste. (Poaletta) Moreover, an incinerator was going to be built on the same site to burn the waste and store shipments of supposedly 100,000 to 150,000 tons each constituting 500,000 tons a year. (Adam, Poaletta) The estimated profits for the two firms, Achair Partners and Progresso, were supposedly \$8 to \$10 million each. Achair Partners, which was handling the transaction, got an extra two to three million dollars per shipment. (Adam) The exposure of this controversial contract outraged the world community. Thus UNEP urged Somalia's neighboring countries and the Swiss and Italian governments to cooperate. In 1992, after a period of acrimonious accusations, both firms and Osman denied entering into an agreement. (Poaletta) The Swiss and Italian governments stated that they had no knowledge of the two firms' illegal activities. The contract was declared null and void and the facility was never built. (Poaletta)

In a press release by Dr. Mustafa Kamal Tolba, former Secretary-General of UNEP, it was clear that the European waste merchants were disposing toxic, hazardous waste in Somalia. (Tolba, "Disposal...") Dr. Tolba discovered a larger industrial hazardous waste disposal site and the involvement of the "fictitious" firms (Achair Partners and Progresso). At one point Dr. Tolba declared that UNEP was dealing with organized crime, the Italian *mafia*. (Tolba, Mohamed) In 1997, UNEP initiated a field investigation in Somalia concerning the magnitude of the hazardous waste dumps that surfaced (Chiara and Scalettari, Adam). UNEP hired Mahdi Geddi Qayad, a former Professor of Chemistry at the University of Mogadishu as a team leader to conduct a month-long investigation in many areas of Somalia's main coastal zones. (Mohamed) The final report of the investigation was never published as UNEP rejected its existence. Nevertheless, an Italian magazine, *Famiglia Cristiana* later obtained a copy of it, and incorporated it with some of their published reports by Chiara and Scalettari in 2003. For six months, *Famiglia Cristiana* jointly

investigated the allegations with the Italian branch of Greenpeace. The investigators traveled to six major cities across the country. The magazine revealed that the Italian project is code-named "The Island of the Salt" (Chiara and Scalettari, 2003). According to the study, there are suspected sites all across the country, including numerous underground and deep sea deposits.

In 2000, an Italian parliamentary study relating to "illegal waste-trafficking" was released. This study indicated that the Mafia is in control of about 30 percent of the country's rubbish disposal companies, including toxic waste (Grosse-Kettler, Reuters, 2000). The report further says that the so-called "ecomafia-operated" companies are handling approximately 35 million tons of waste annually, collecting at least \$6.6 billion (Grosse-Kettler, 2004). The report also suggests that both local governments and companies unknowingly used Mafia-controlled firms to dispose of refuse, including industrial and toxic waste. ("Mafia Controls 30 Percent...") In 2001, Maurizio Demattieis, of the Italian environmental umbrella, *Ligambiente*, declared that: "There were three enormous illegal dumps-- among the largest in the world -- in Somalia, where workers handle the radioactive waste without any kind of safeguard or protective gear -- not even gloves....the workers do not know what they are handling, and if one of them dies, the family is persuaded to keep quiet with a small bit of cash (Pia, 2001)." Italian firms seem to be all over the map in the transboundary shipments of hazardous waste and illegal dumping. As a matter of fact, "the Italo-Swiss Intercontract-Jelly Wax group," a larger network of waste disposal, has tried to negotiate contracts with African states including Guinea-Bissau, Djibouti, and Senegal. (Poropat, 2)

**FACTORS CONTRIBUTING TO HAZARDOUS WASTE
DUMPING IN SOMALIA:
TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTE**

As the production, storage, treatment, transport, disposal, and recovery costs of waste for developed countries increases, the need to find cheaper places for movement of hazardous waste becomes imperative. (Asente-Duah, Saccomanno and Shortreed) According to OECD, a consignment of hazardous wastes passes the boundary of an OECD nation every five minutes, twenty-four hours a day. (Long) More than two million tons of that waste crosses state boundaries of OECD European countries yearly on a journey to disposal sites. Furthermore, transfrontier shipments have been motivated to get rid of this excessive waste by disposing of them in places where it is less expensive, controls are less stringent, and the territories are easily accessible. (Asente-Duah, Saccomanno and Shortreed)

A large-scale network of illegal trafficking of industrial waste, including nuclear waste, has targeted developing nations for storage/dumping grounds for several reasons. (Fondazione Rosselli) First, with the increase of generating hazardous waste, developed countries seem to be lacking the proper facilities to store hazardous waste. Second, landfills seem to be filling up faster than anticipated, thus limiting the land disposal option. Third, the general public of the developed countries are declining to store or dispose of the waste in their backyards. There are a number of equally important opportunities for waste merchants: First, the location of the state determines the easy accessibility of the shipment. Second, developing countries face severe financial constraints, making it difficult for corrupt leaders to resist the temptation for fast cash. Third, the political instability of some of these countries attracts illegal waste dumpers since control of the state is either limited or nonexistent. Fourth, individuals from countries in political turmoil weigh their personal gain more than the common good. Lastly, a lack of public awareness

concerning the risks involved in these hazardous or toxic wastes helps explain why there is no public outcry.

Somalia is a microcosm of all of these factors: Its geographical location makes it attractive and easily accessible. It is located along the edge of the horn of Africa parallel to the Gulf of Aden on the north and to the east and south of the Indian Ocean coasts (see attached map). It boasts the longest coastline in Africa. Somalia's political instability plays a role in attracting the hazardous waste generators and handlers. Somalia has been without a central government since 1991, after the fall of the military government, which had ruled the country for over twenty-one years. Soon afterwards, a civil war ensued and has been raging ever since. As a result, about half a million people were either killed in factional fighting or died of starvation. (United Nations Children's Fund) Many more suffered lasting, physical and psychological injuries with millions enduring internal and external displacement. The civil war has left most of Somalia destroyed. Militia groups and bandits roam the country, pillaging and plundering. Notorious warlords have been battling savagely for control of the capital, Mogadishu. (Rotberg, Lyons and Samatar) As the state collapsed and factional disputes continued, Italian and Swiss firms capitalized on these dreadful circumstances. (Adam) European firms have either pursued illegal contracts or dumped nuclear and hazardous waste in Somalia without a contract. The resulting statelessness compounded by the economic crisis and the other preexisting problems have made Somalia vulnerable to exploitation. (Adam)

ENVIRONMENTAL IMPACT

Before going on to deal with issues of environmental impact, a note of analysis on data collection is in order. The analysis of the data in this section describes the environmental and public health impacts of toxic

waste dumping based on interviews with Somali medical workers and educators. It also draws on documents relating to the impact of hazardous waste dumping on human health and the environment as well as the devastation of the tsunami that hit the Indian Ocean around the Somali coast.

Daryeel Bulsho Guud (DBG--Comprehensive Societal Care) is a Non-Governmental Organization (NGO) founded in 1992 based in Mogadishu, Somalia. It is one of the leading environmental organizations actively involved in the hazardous waste dumping issue in Somalia. DBG is affiliated with Diakonie Emergency Aid and Bread for the World, Germany. Its hazardous waste project started in 2005 and gained impetus in early 2006 after the tsunami tidal waves washed ashore barrels and containers of suspected hazardous waste. According to DBG staff interviewed, a German aid organization provided the funding for the project, including hiring a consultant who trained DBG staff, and obtaining hazardous waste testing equipments and protective gear. DBG has been assessing the environmental impact of the hazardous waste. DBG conducted a reassessment mission in southern Somalia and parts of central Somalia from April to May 2006. Using device detectors, DBG found 15 containers of "confirmed nuclear and chemical wastes" in eight coastline areas including: Iidan coast (Hobyo district); Hin Dawa'o, Fah, and Qosoltire coasts (Harardhere district); Waahweyn and Mareg coasts (Eldher district); Jamal coast (Adale district); Havai coast (Mogadishu coastline); Hijo-mahad coast (Barave district); El-Bakari, El-Shid, Esole, El-lahelay, and El-Ganane coasts (Jamama district); and Koyamo coast (Kismayu district) (See Exhibit 3). DBG compiled a huge report about this mission but declined to give me a copy.

The areas that harbored containers are consistent with the areas highlighted in the attached map by *Familgia Cristiana* (See Exhibit 1).

According to Chiara and Scalettari, in southern Somalia, the areas of suspected sites for the deposits include: Adale, Eel-Bara, Jawhar, and Warsheik (Middle Shabelle), the Mogadishu area, Jamaame, around Kismayu, the vicinity of Merka, the "bog" or the Marshland where Shabelle River ends, the kilometer fifty area between Merka and Mogadishu. Other areas in Northeast include Garoowe, Boossaaso, in the desolate highlands between Sanaag Region and Bari Region. In addition, large amount of pesticides are stored in a depot 5 km to Hargeisa, the capital of Somaliland. According to Grosse-Kettler two "dark blue long barrels containing oily-liquids were found" on the coast between Ige and Mareeg in Elder district 300km to the North of Mogadishu. When samples were taken, it was identified as deadly nuclear waste (Grosse-Kettler). During my field work, 'Eeldheere is one of the places I visited, and these two containers are among the pictures taken by DBG.

Hard blowing winds of the tsunami hurricane are believed to have carried radioactive wastes posing serious environmental risks to the East Africa sub-region. (UNEP) UNEP received an urgent request from the Ministry of Fisheries, Ports and Marine Transport of the Puntland State (northeastern region of Somalia) administration to make an assessment on the impact of the tsunami (See Exhibit 2). UNEP claimed that a fact-finding team could not be sent due to security reasons in the region, even though numerous U.N. humanitarian agencies and other international NGOs were in Somalia assisting the tsunami victims. Instead of the field investigation, UNEP prepared a desk report. In this report, UNEP confirms that European firms have been dumping hazardous waste in Somalia even though it fell short of naming those responsible for the illegal dumps. According to a UNEP spokesman, Nick Nuttel, the tsunami waves stirred up the hazardous waste disposals in the deep sea of Somalia, broke open rusting barrels and containers full of toxic waste, and scattered its

contents along the shorelines causing health and environmental problems. According to the UNEP official interviewed, the UNEP was criticized by UNDP, World Bank and other agencies for releasing this report without conducting a field investigation. Nuttel indicated that, shortly after its release, many importing countries and international investment fisheries have suspended the purchase of marine products from Puntland. A United Nations (UN) multi-agency (United Nations Development Programme (UNDP), United Nations Environmental Program (UNEP), Food and Agriculture Organization (FAO), and World Health Organization (WHO) conducted a field investigation in May 2005 at the four cities hardest hit by the tsunami (Hafun, Bandar Beyla, Eyl, and Garacad). I was able to obtain a copy of the report from this field work: *UN Mission to Puntland Report on Toxic Waste in the Coastal Areas of Somalia after Tsunami*. Surprisingly, the report concluded that no traces of toxic waste were found based on the analysis on drinking and sea water, soil, and marine products as well as human blood and urine test results.

Some of the shortcomings of the UN multi-agency findings of this report include: 1) pictures taken after the tsunami show huge containers; however, no samples of any containers were taken; 2) it is not clear from the report whether the whistle blowers were interviewed or included in the field investigation team; 3) the economic downfall caused by the suspension of marine product imports and foreign investment fisheries, that the agencies were concerned about might have influenced the findings of the report; and 4) a recent telephone interview I conducted with Fatima Jibrell, founder and executive director of Horn of Africa Relief and Development Organization of Somalia added another dimension. Ms. Jibrell said that UNEP and other UN agencies that receive funding from Italy and other countries and would be unlikely to expose those countries' involvement in hazardous waste dumping in Somalia. The improper

hazardous waste dumps in Somalia have had a negative impact on both human health and the well-being of the environment. The majority of the participants interviewed believe that the flora and fauna are at risk. One of the participants said that small fish are like popcorn scattered around the beach. Many residents in the tsunami affected areas have complained of diseases and illnesses attributed to radiation sickness.

HEALTH IMPACTS

The health impact that can be attributed to the exposure of hazardous and nuclear waste in southern Somalia is based on interviews with doctors and a medical administrator as well as relevant data from document analysis. During my field work, the majority of the doctors reported an increased number of cases relating to different types of cancer. These cases include leukemia of children and teenagers, lymphoma (both adults and children), esophageal cancer, nephroblastoma (tumor of the kidneys), oral cavity cancer, Osteosarcoma (bone cancer), and skin, liver, colon, and breast cancer. A public health doctor said that he has seen more cases of cancer in one year than he has seen in his entire professional career.

Doctors also reported higher number of cases relating to birth defects such as congenital defects for newborns and other congenital abnormalities (bladder out), cheiloschisis (Cleft lip) and palatoschisis (cleft palate), bilateral amputations or phocomelia (no hands / legs or both), chromosomal abnormalities, heart diseases with newborns, and abnormal cells that can cause diseases. Participants also reported higher rate of premature births and abortions by both women and animals. They have treated patients who swim in the ocean with skin rashes and itching, eye pain, and irritation of the throat.

According to DBG, suspected leaks from the toxic waste containers at seashores have affected both humans and livestock. "Both people and

animals suffered from varied unidentified sickness. The signs of sickness that they mentioned were: itching, skin burns, bleeding, suffocation, and bone ailing while animals suffered from delivering premature offspring and had unknown weakness" (Sheik Ali). An excessive number of tumors of or on the tongue, throat, rectum, and many cases of neo-natal malformations as well as ten deaths caused by unspecified fever hemorrhage were reported in southern Somalia. (Chiara and Scalettari)

The perception of the majority of Somali medical workers and educators interviewed is that the hazardous waste dumping in Somalia has negative impact on human health and the environment. Even though this case study reveals substantial data indicating that there is a correlation between the hazardous waste dumping in Somalia, and the increased cases of cancer and mysterious illnesses, it has its limitations. It is difficult to prove the actual rate of increase of cancer since there is no historical data. Furthermore, no comprehensive assessment has been made relating to the existing conditions and the potential social and environmental impacts of the hazardous waste dumping in Somalia in the long-term. With the amount of hazardous waste suspected both in the sea and the land, long-term negative effects could be catastrophic. This may be particularly true in areas of contaminated groundwater, marine resources, and human health, including future generations, and the whole ecosystem in general. Another limitation of this case study is that the principal author is an ethnic Somali who studied environmental health and supports environmental protection and sustainability.

UNANTICIPATED CONSEQUENCES

Proliferation of piracy cases both inshore and offshore Somalia including international waters have recently dominated the local, national, and international media. Several factors contribute to the epidemic of piracy

raids along the longest coast in Africa: state collapse, illegal hyper-fishing, and hazardous waste dumping top the list. In 2008, according to the International Maritime Organization (IMO), Somali pirates have attacked more than one hundred twenty vessels, seized more than thirty-five ships, and kidnapped and held for ransom more than six hundred seafarers in the Gulf of Aden and Indian Ocean (IMO, 2008). The International Chamber of Commerce's (ICC) International Maritime Bureau (IMB) recently reported a significant increase in attacks by Somali pirates. The report indicates a total of one hundred two ships attacked in the first quarter of 2009, compared to fifty-three incidents in the first three months of 2008. The hijacked ships include the Maersk Alabama ship that forced Navy SEAL snipers on a U.S. destroyer to kill three Somali pirates holding the ship captain hostage on a lifeboat. A fourth pirate surrendered and is facing prosecution in U.S. courts. Currently, the Somali pirates are holding fourteen ships and two hundred eighty crews from twenty-five nations as hostages. ("IMO Chief...")

According to a spokesman for the pirates, the ransom demand is a way of "reacting to the toxic waste that has been continually dumped on the shores of our country for nearly 20 years." He also said: "The Somali coastline has been destroyed and we believe this money is nothing compared to the devastation that we have seen on the seas." (Abdullahi) In addition, The UN special envoy for Somalia, Ahmedou Ould Abdallah said: "I am convinced there is dumping of solid waste, chemicals and probably nuclear (waste).... There is no government (control) and there are few people with high moral ground." Mr. Abdallah also added: "Because there is no (effective) government, there is so much irregular fishing from European and Asian countries." (United Nations Security Council)

The Somali piracy issue attracted the international community's attention to combat piracy. The United Nations Security Council adopted

Resolution 1846 (2008) which allows states, and regional organizations to use “all necessary means” to fight against piracy at seas off the coast of Somalia for a period of one year by deploying naval vessels and military aircraft, and capturing all equipment used for piracy. (United Nations Security Council) Currently, more than dozen warships from the United States, Russia, China, the European Union member states, India and others, in addition to a NATO naval force, have been patrolling the region to step up the largest international anti-piracy efforts. (Ryu) Despite all these efforts, Somali piracy incidents have increased and pirates have gotten more sophisticated, utilizing modern technology to hijack big and valuable ships. (“Piracy Attacks...” ; Axe) These international anti-piracy efforts do not solve the root causes of the problem: lack of functioning government, the exploitation of Somalia’s marine resources, and, more importantly, the dumping of hazardous waste in Somalia.

RECOMMENDED STRATEGIES

Setting priorities for actions to halt the illegal trafficking of hazardous and nuclear waste in Africa is crucial in preventing and reducing human exposure and ecotoxicologic damages. It is of great importance to assess the health risks of the exposed Somali populations, and the protection of others at risk. Since the Transitional Federal Government of Somalia is not functioning, and seems to be a long way from dealing with such an urgent issue, the international community, specifically the United Nations, must take decisive action. Some of the strategies that human rights defenders and environmental advocates can deploy to ensure human health and a sustainable environment for Somalia, include: U.N. enforcement of the Basel Convention, environmental impact and risk assessment, education and outreach to the Somali public, and safeguarding of the country both land and sea. International laws must be respected by all

nations and their public and private institutions. The transboundary movement of hazardous waste laws prohibits transporting waste to non-member states. Since Somalis did not ratify any of the treaties due to the prolonged civil war and lack of central government, it is illegal to use Somalia as a dumping ground. With respect to Somalia's hazardous waste dumping, the U.N must attempt to enforce the 'polluter-pays-principle' as outlined in the treaties by holding firms accountable for violations. Along with their respective nations, these firms must be required to engage in clean-up activities and proper disposal of the hazardous waste. The responsible parties have to be forced to compensate for the environmental damages caused by such actions and compelled to take back the waste and dispose of it according to the treaties the violating countries have signed.

A group of environmental and health experts must be sent to assess the environmental damage to Somalia. NGOs who have no stake in Somalia's hazardous waste dumping issue should take the lead to investigate the matter and assess the situation. Also, UNEP should be encouraged to make its previous reports and findings public. The type of waste involved, the affected areas, and its magnitude must be thoroughly studied. The damages to the environment, including human health and ecological sustainability, as well as contamination to groundwater, must be thoroughly examined. A comprehensive study about the number of deaths and the magnitude of the suffering in different regions must be conducted. Also, long and short term effects of the wastes should be investigated. In addition, it is essential to provide continuous monitoring of water and soil in the affected area, particularly surface and ground water. Contacts and collaboration must be established with local NGOs, specifically environmental, health and human rights organizations as well as educational institutions (universities) to help carry out baseline data. The

U.N. must invest in setting up a database system for collecting vital information.

Massive public education and outreach campaigns at the grassroots level are imperative to create public awareness. After identifying the types of hazardous waste in particular areas, local community leaders, fishermen, and religious leaders must be among the first groups to be informed. They, in turn, can communicate with residents and animal herders in the affected areas. The health hazards of these wastes to humans and animals, and how it can be avoided is an important tool for risk prevention and should be part of the public education campaign.

Informed and engaged communities are the greatest strength that can contribute to the efforts in reducing the hazardous waste risks, and safeguarding their areas specifically the fishermen who are around the sea in different localities. The well-established modern phenomenon of “Not In My Backyard” (NIMBY) syndrome stirs negative reactions from local communities to the construction of hazardous facilities in their neighborhoods. While the term is typically used as a criticism, at its core it is the result of the work of concerned and informed citizens. Thus, NIMBY could be a tool that can be used by Somali communities in coastal areas.

Community participation gives citizens a sense of ownership in policing their land and sea. It also ensures citizen responsibility to protect the well-being of their environment, and expose likely offenders. Utilizing community power, in turn, helps to create a wealth of individuals able to spread the message of environmental protection to each community in which they hold membership. Since Somali culture springs out of an oral tradition, information disseminated by radios, internet, and televisions, which is more abundant in the country now than before the civil war, can easily reach others by word of mouth and can be an effective tool for

public education and outreach. Therefore, utilizing the media is an effective tool to circulate information about the hazardous waste risks. Communities should be encouraged to report any unusual sickness, or toxic waste remnants founds in their vicinities. Unless citizens are aware of the dangers, there is no way to reduce the risk of illnesses and death related to toxic waste.

CONCLUSION

Hazardous waste substances are highly dangerous to human health and the environment, if not properly handled. Since a broad spectrum of substances is covered under the title of hazardous waste, producers should handle the transboundary movement of hazardous waste with care. The transboundary movements of hazardous waste should be controlled "from the cradle to the grave." The Basel Convention, the Bamako Convention and other treaties provide a roadmap for transboundary movements of hazardous waste. Although the international community's concerns provide the foundation for regulatory framework outlined in the Conventions, more has to be done to protect developing nations, particularly weak, soft, or failed states from being exploited. In addition, although the Conventions provide a strategic plan for the transboundary movement of hazardous waste, it obviously lacks enforcement measures.

The international community must implement new strategies to punish perpetrators if it is serious about regulating the transboundary movement of hazardous waste. Signatories should take the responsibility to adopt the treaty into their federal, state, and local-levels. Law enforcement agencies and international tribunals for the violators of these human and environmental rights regulations should be put in place in order to give the treaties teeth. Ecomafia firms, along with the state, should be liable for compensation – not only to remediate the waste, but also to

provide financial assistance for the long-term damages to human health and the environment.

There are obvious ethical implications not only of disposing of waste in Somalia, but also negotiating an agreement with an individual (not a state) from a war-torn, famine ridden country. Moreover, it is a violation of international law. As both Italy and Switzerland have signed and ratified the Basel Convention to Control the Transboundary Movements of Hazardous Wastes and their Disposal, they are also breaking the same treaties. Without consequences for violations, these treaties are meaningless.

Unending political instability in Somalia is the root cause of the problem. The global community needs to participate collectively in building peace and governance in Somalia, so that it can safeguard its territories and ensure the safety of ships in Somali waters. In the meantime, efforts to curb piracy must include guarding the Somali coastal territories from the depredations of hazardous waste dumpers and illegal fishers. Unless these criminals are held accountable for their actions, these illegal and immoral goings-on will continue or even become worse. Since there is only one planet that we all share, it is important that today's inhabitants protect it for the good of future generations, and invest in a future where hazardous substances are disposed of safely and equitably.

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<http://www.un.org/News/Press/docs/2008/sc9514.doc.htm>.

Glossary of Acronyms used for this paper

Daryeel Bulsho Guud (DBG),
Environmental Protection Agency (EPA)
International Chamber of Commerce's (ICC)
International Maritime Organization (IMO)
Non-Governmental Organization (NGO)
Not In My Backyard (NIMBY)
Organization of African Unity (OAU)
Organization for Economic Cooperation and Development (OECD)
United Nations Environment Programme (UNEP)

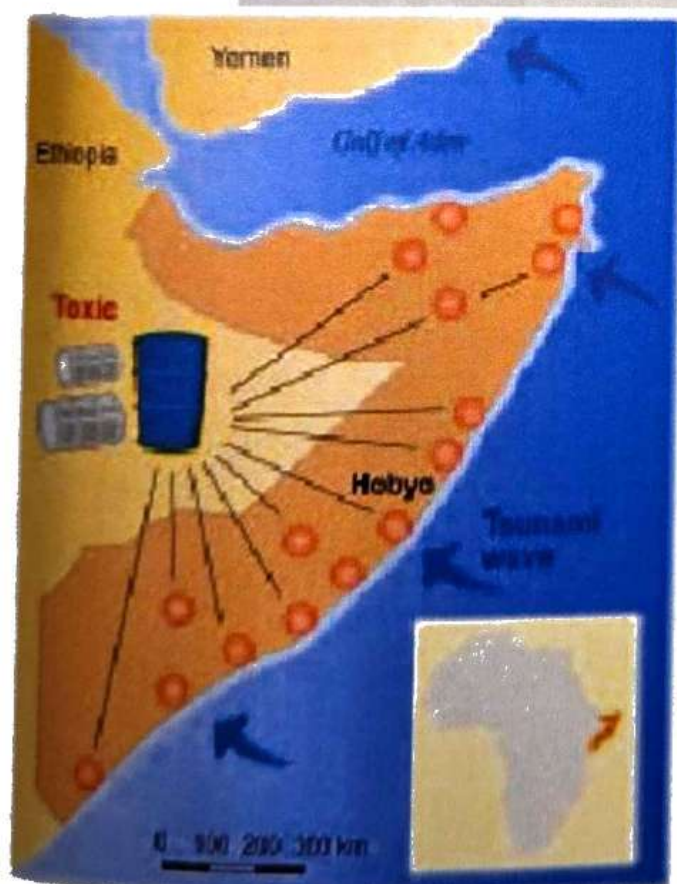
EXHIBIT 1



Places in Somalia where hazardous wastes are indiscriminately dumped
(Source: Familia Cristiana, 1998 and UNEP investigations).

Exhibit 2

Case Study: Hazardous waste dumping in Somalia





Photos courtesy of Minister for Parliamentary Affairs
Transitional Federal Government of Somalia (top)
and Abdiashid Abdillahi, resident of Indaan, North
Hobyo (bottom)¹

¹ United Nations Environment Programme. (2005, January 8). *National Rapid Environmental Desk Assessment – Somalia*. Retrieved on November 7, 2005 from www.unep.org/tsunami/reports/TSUNAMI_SOMALIA_LAYOUT.pdf



Hafun, Somalia (8 January 2005). A Somali man walks through debris on the island of Hafun, the worst hit area in Somalia. Almost all its 4,500 inhabitants were made homeless. © Francesco Broli/World Food Programme/Reuters¹

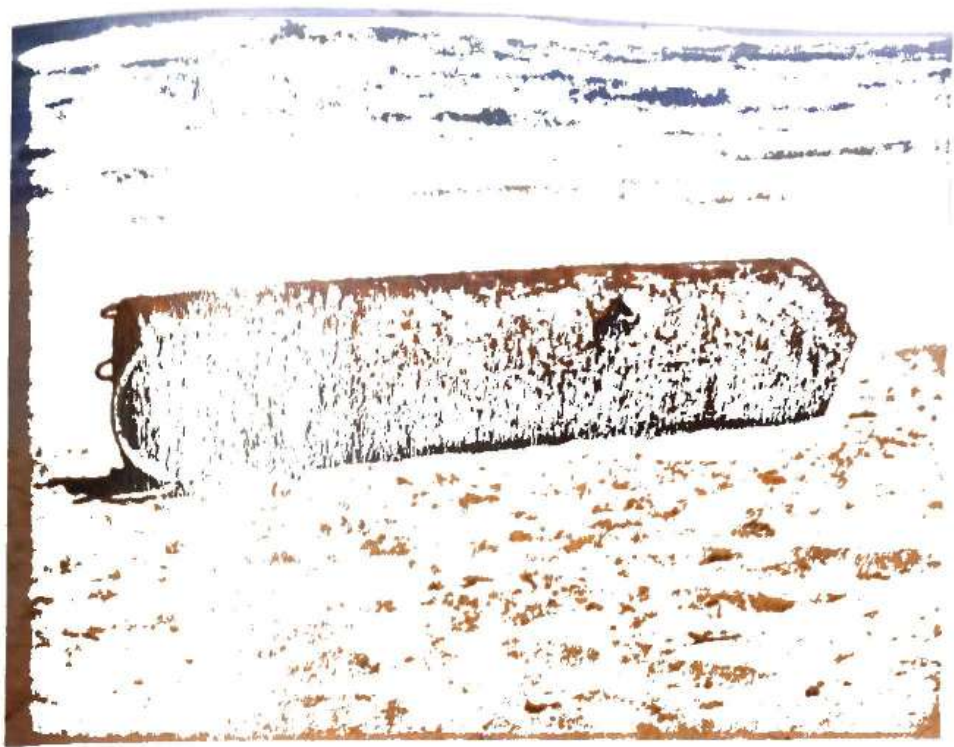


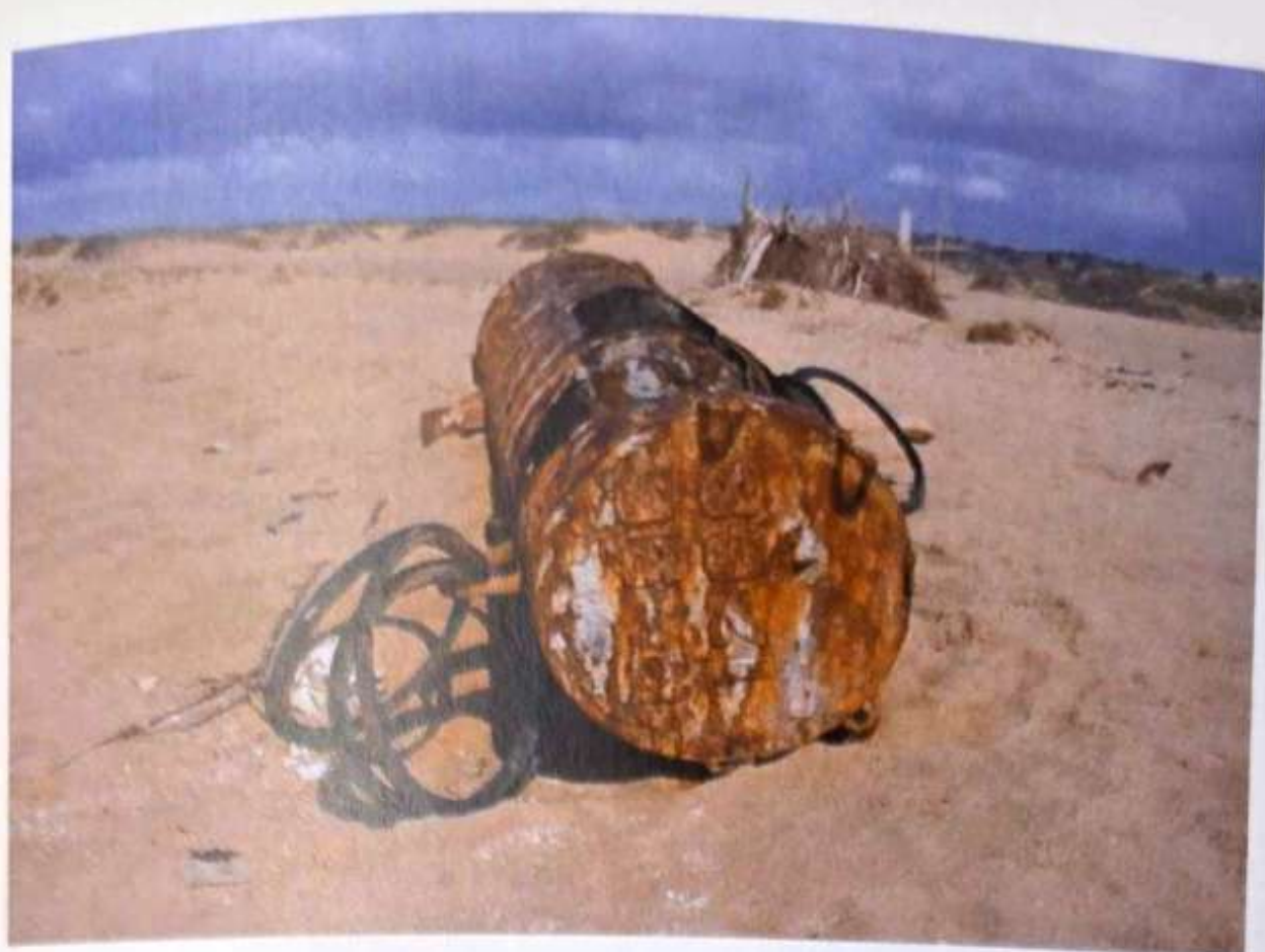
Hafun, Somalia (31 December 2004). Aerial view of the aftermath of the tsunami that struck Harun, Somalia on 26 December. The tsunami killed more than 300 people and destroyed homes, boats and fishing equipment. About 18,000 households were estimated to be directly affected and in need of urgent humanitarian assistance. © AFP/Getty Images¹

EXHIBIT 3

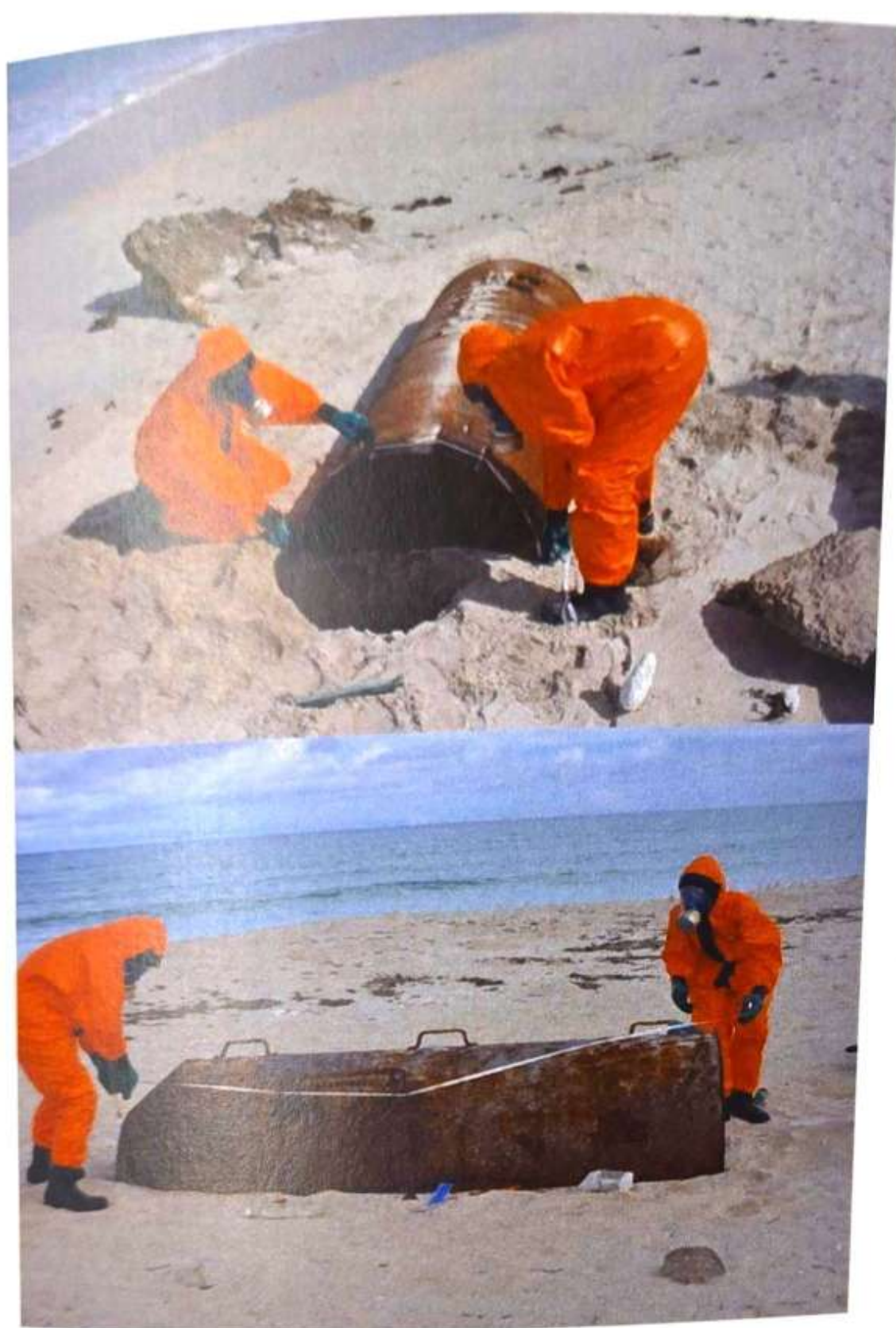
Containers of “confirmed nuclear and chemical wastes” from DBG reassessment mission in southern Somalia and parts of South Central Somalia from April to May 2006











Zainab Hassan



EXHIBIT 4
Health Impact



Borrowed from Somali Web Pages of www.Dayniile.com



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