The political economy of international trade in hazardous and toxic wastes in West Africa: theoretical and case analysis

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ABSTRACT

POLITICAL SCIENCE

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THE POLITICAL ECONOMY OF INTERNATIONAL TRADE IN
HAZARDOUS AND TOXIC WASTES IN WEST AFRICA:
THEORETICAL AND CASE ANALYSES

Advisor: Dr. Johnny Wilson
Dissertation dated December 1997

This dissertation examines international dumping trade in hazardous and toxic wastes and its impact on the trading countries in West Africa, relying on available and fairly limited information on transboundary movement of "unwanted wastes" shipped more often illegally for dumping from industrialized to poor West African countries between 1980-1988. The drive for this trade in "unwanted wastes" from West African countries has been the seeming attraction for easy cash, while the drive from the industrialized countries has been the huge profit margin for the unsavory waste brokers, and the desperate need for cheap source of disposal. Given these motivations and the attendant health and environmental problems with inexplicable outcomes associated with this type of trade, the study takes off from the premise that proper economic development in this poor region of West Africa is not properly served by
international trade in "unwanted wastes." This postulation, the paper explains, adopts two methods of analysis—a theoretical approach and an empirical approach. The theoretical approach analyzes the realists, radical/marxists and dependency theorists arguments which favor protectionism, in contrast with the liberal theorists arguments which favor laissez-faire capitalism. In the empirical approach, analysis is made by developing and testing a hypothesis in five West African countries involved in the international wastes dumping trade. One major finding is that at least two of the five tested cases confirm the hypothesis—that the hazardous and toxic wastes dumping trade in West Africa follows the path of the poor, the corrupt or uninformed and it is exploitative.

Conclusion derived from the analyses is that the international trade in "unwanted wastes" does not serve proper economic development in West Africa and should be banned. The study recommends the elimination or minimization of more toxic wastes production through prevention and adoption of Al Gore's new initiative of phasing out dirty production practices with sophisticated technology.
THE POLITICAL ECONOMY OF INTERNATIONAL TRADE IN HAZARDOUS AND TOXIC WASTES IN WEST AFRICA: THEORETICAL AND CASE ANALYSES

BY
INI GEORGE INYANG

A DISSERTATION
SUBMITTED TO THE FACULTY OF CLARK ATLANTA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF POLITICAL SCIENCE

ATLANTA, GEORGIA
DECEMBER 1997
ACKNOWLEDGEMENTS

In the pursuit for knowledge, like every endeavor, comes interaction with people - the basis on which our personality is shaped or formed as social creatures. I have been blessed by the advice and prayers of many. Indeed, this research effort is very much the by-products of scholarship and the support of many, all I cannot enumerate. I would like to thank members of my dissertation committee - Drs. Johnny Wilson, chairperson, Hashim Gibrill, and Fatemeh Shafiei for their time and effort in providing professional guidance for this work. I also thank Professor Daniel Offiong for his time in reading and correcting the initial stage of this study.

I am heartily indebted to my family, especially my dear wife, Kathy, for her support and understanding. And finally, I would like to remember my parents, especially my dear mother, Mrs. Ma-arith George Inyang, who nurtured me in high hopes and dreams, but, did not live to see her dreams come through. To her specially, I dedicate this work.
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CHAPTER I

INTRODUCTION

Africa's role in the world economy, conditioned by the legacies of slavery and the colonial experience, and present day lack or inadequate technology and unstable political environment for proper growth renders the countries, especially the West African countries, gullible and vulnerable in international trade. Heavily dependent on international finance for their capital formation, faced with domestic economic crisis, heavy external debt and repayment burden, and social pressures, some West African countries especially the national bourgeoisie have been known to desperately adopted development paths dictated by international agencies and foreign governments that do not often serve the interest of the masses. For example, engaging in international trade of dumping hazardous and toxic wastes on impoverished masses for token cash. This study shows the deepening economic dependence of some West African countries to be a corollary to the continued political and economic manipulations of these countries by their national bourgeoisie who collaborate with foreign agents.
In West Africa, as in other Third World countries, environmental awareness is still lacking among most policy makers; as there are hardly any laws regulating waste disposal, and very little action in place by governments to monitor, let alone act against, the storage and disposal of hazardous and toxic wastes. Environmental issues have only recently begun to receive some attention and concerns from African governments following reported cases of deaths and environmental pollution and damage by hazardous and toxic wastes dumping.

Since the late 1980s, national, continental, and global environmental concerns posed by international trade in hazardous and toxic wastes have emerged in West Africa as a significant international issue. This deadly trade has come about primarily as a result of excessive hazardous and toxic wastes production and the attendant problems of managing these wastes in the industrialized nations. The United States, for example, is leading in the production of millions of tons of hazardous and toxic wastes every year. And almost all the industrialized nations are faced with increased hazardous and toxic wastes production, limited disposal options, high public environmental awareness and stringent environmental regulations that force them to look elsewhere for alternative cheap sources of disposal. High cost of wastes disposal and lack of land space are also major factors for waste generators and handlers turning to
dump on the cash-poor and easily accessible countries in the Third World like West Africa. Hazardous and toxic wastes that cannot be easily disposed of or recycled are exported to West Africa and other Third World countries which are considered cheap disposal avenues. This cheap and evasive approach of dumping environmentally destructive and health threatening hazards on the poor and/or the least informed countries for a token price raises objective questions of exploitative intent.

The political economy study of the international trade in hazardous and toxic wastes in West Africa addresses the roles of producers and exporters or handlers of wastes—the West, and the role of recipients or importing states in West Africa. Because the investigative analysis between economics and politics in this study is extended to the international sphere, the approach is the international political economy (IPE). Professor Susan Strange, who helped establish the modern study of IPE at the London School of Economics and Politics, writes that IPE, concerns the social, political, and economic arrangements affecting the global systems of production, exchange, and distribution and the mix values reflected therein. Those arrangements are not divinely ordained, nor are they the fortuitous outcomes of blind chance. Rather, they are the result of human decisions taken in the context of
man-made institutions and sets of self-rule and customs.¹

In short, IPE is a multidimensional study of not just institutions or organizations, but also of the values the institutions reflect. IPE is also "a network of bargains between and among states (that deal in power) and markets (that deal in wealth)."² This study also addresses the process of development in West Africa that encourages this type of unbalanced trade relationship between the industrialized countries' and the West African countries.

The industrial countries environmental management and hazardous and toxic wastes trade export have largely been based on the liberal or orthodox policies that rely on the logic of capitalism. The industrial countries favor Adam Smith's liberal philosophy of laissez-faire where the "invisible hand" determines the supply and demand mechanisms of the market. This liberal perspective which favors the economics of free trade is compared with other perspectives of the international political economy that favor protectionism.

The realist perspective analyses the waste trade from a state-centered view point. Realists assume that states are


rational and self-interested actors in the waste trade and as such states in West Africa should be making and implementing decisions that further and protect states' interest.

Two perspectives, the dependency approach and the radical/marxist approach, appear to address the problems of the waste trade with reference to the developing countries particularly West Africa. The two approaches address the problems of exploitation and underdevelopment in the West African states which have greatly helped to enhance this unbalanced trade relationship between the developed countries and West African countries.

The radical/marxist and the dependency approaches also explain why West African states are made gullible and vulnerable in the international trade in hazardous and toxic wastes. The dependency approach explores the roles of some African countries in the business of importing or accepting hazardous and toxic wastes for cash.

In a comparative theoretical analysis of how the approaches explain the international trade in hazardous and toxic wastes, this study assesses how the various theoretical perspectives of international political economy explain the waste trade problems and how their arguments agree or disagree with the growing international concerns and resolutions to ban this trade.
The case studies of some countries in West Africa will test the hypothesis that hazardous and toxic wastes dumping tend to follow the path of the poor and the corrupt or improperly informed and that it is exploitative by addressing the following questions: a] How is the recipient country performing economically? b] What are the financial stakes like for the West African countries engaged in hazardous and toxic wastes trade? c] Is the existing hazardous and toxic wastes trade based on informed or uninformed decisions as the recipient countries tend to be unaware of the risks involved? d] What have been the consequences of this hazardous and toxic wastes trade in West Africa?

The conclusion looks at what would likely be the possibilities or outcomes of this international trade in hazardous and toxic wastes. Is it possible to control and regulate the risks involved in this hazardous and toxic wastes trade or should it be banned?

In studying cases of hazardous and toxic wastes dumping in West Africa, it is fairly difficult to come by complete data for all countries involved in this trade as this type of trade is usually carried out illegally and more often in secret. Information on the hazardous and toxic wastes dumping trade are scarcely available except in explosive instances where the consequences of the hazardous and toxic wastes dumping are obviously manifesting—claiming several
lives and the environment damaged with trees dying out, the air fouled or drinking water is badly polluted that its claiming innocent lives. The fact being that by the clandestine nature of dumping, many cases are not usually reported or documented. Five countries, Guinea, Nigeria, Benin, Guinea-Bissau and Sierra Leone, provide some information that are examined in this study. (Figs. 1 and 2)

Statement of the Problems

The hazardous and toxic wastes dumping trade in Africa is an added burden on a continent that has always had its share of environmental problems. Geologically, Africa is an old continent which makes it more susceptible to natural processes such as erosion, degradation, deforestation and infertility with diminishing ability to sustain human activity. This is why Africa is often described as "underpopulated" because of the fact that its population density is relatively low. Compared with Asia or America, Africa seems uncrowded with vast land space that can hardly sustain its population. It is most likely that this type of picture is one which tempts the industrialized countries to see Africa as a dumping ground.

About 80 percent of Africa is not arable. This means that only about 20 percent is arable. Half of the likely arable land is made up of laterites that make the land unsuitable for permanent field crop agriculture.
The West African trade in hazardous waste

Senegal
- Negotiating for unspecified amounts of unspecified wastes for disposal at site 40 km north of Dakar.

Guinea
- Accepted 15,000 tonnes of incinerator ash from Philadelphia, U.S. and Norway. Dumped on Kassa Island.

Guinea-Bissau
- Contracted 15 million tonnes of industrial and chemical wastes from the UK, Switzerland, and US over 5 years for landfill.

Benin
- Contracted to dispose of 1-5 million tonnes of industrial wastes from US and Europe per year. Also takes radioactive wastes from France for landfill.

Nigeria
- 3,800 tonnes of mixed chemical and industrial wastes dumped illegally at Koko, from Europe.

Equatorial Guinea
- Accepted 2 million tonnes of mixed chemical wastes from Europe for disposal on Annoban Island.

Gabon
- Agreed to take unspecified quantities of uranium mining wastes from Colorado, US, in 1987.

Congo
- Contracted to take 1 million tonnes of solvents and chemical wastes from the US and Europe between June 1989 and May 1989. Recently broke off agreement to take further 1 million tonnes from US.

Sierra Leone
- 628 kegs of hazardous waste containing Ammonia and Formaldehyde mislabeled as "construction materials" from UK.

The poisoned earth

The DUMPING GROUNDS

The map illustrates the dumping grounds for various types of waste, including chemical, toxic, and radioactive materials. The status of each dumping site is indicated, with some sites marked as operational, already dumped, or failed attempts. The map highlights the environmental impact of these dumping grounds on the African continent.
Only 7 percent of the arable land has rich alluvial soils.\textsuperscript{3}

This means that Africa has limited natural sustainable land. West Africa in tropical Africa adds to this picture with about 50 percent land mass made up of arid and semi-arid soil. West Africa will have aggravated environmental problems permitting the dumping of hazardous and toxic wastes on its proportionately limited life-sustainable land.

Apart from imported pollution and from the international trade in hazardous and toxic wastes, West Africa, in embracing some industrialization, has been generating its wastes and polluting its land, water and air. While it is difficult to quantify how much wastes and pollution are generated directly by industrialization in West Africa, there are a number of outstanding examples of severe economic disruptions and public health problems in many parts of the sub-region. For example, the oil industry in Nigeria is presented here to illustrate how widespread environmental problems are associated with development.

Oil revenues generated by the drilling and selling of oil naturally have given rise to growing regional inequalities, impoverishment, underdevelopment and

\textsuperscript{3}Roger Revell, "The Resources Available for Agriculture" \textit{Scientific America} 235 (September 1976): 165-178.
degradation of the Nigerian environment. Hutchful makes the point that oil-industry activities—exploration, production, refining, and transportation—have caused widespread disruption of the natural terrain from construction of oil-related infrastructures and facilities. The areas most affected are the three major oil-producing states: Rivers, Delta and Akwa Ibom. Hutchful attributes inaction in the development of a comprehensive anti-pollution policy to the enormous influence foreign oil companies have on the government. He contends that:

the problem of the oil pollution in Nigeria has been exacerbated by the absence of effective regulations and the predatory attitudes of the oil companies. Clearly, as long as the [major oil companies] can maximize the availability of [economic] supplies from oil, the Nigerian state has had little interest in regulating their activities, particularly where such control may threaten the expansion of production. After many years of widespread exploration and production activities, Nigeria still does not possess a comprehensive or coherent set of anti-pollution legislation. Existing legislation is scattered through a number of statutes limited to specific types of pollution and environment and lacking the backing of detailed regulations. The tendency is to leave considerable discretionary power in the hands of enforcement agencies and corresponding opportunity for the oil companies to evade regulations.

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5Ibid., 113-115.

6Ibid., 118.
Hutchful however, did not mention that discretionary power in the hands of Nigerian bureaucrats gives rise to corruption as the culprit companies can always resort to buying off their offenses.

The international trade in hazardous and toxic wastes also has the problem of accountability. The production and disposal of hazardous and toxic wastes have hardly been properly accounted for in the industrial states. As a result, the amount of waste disposed in the developing countries, especially the West African region, would hardly be accurate. In the United States, for example, despite government efforts to regulate the disposal of hazardous waste by law with the enactment of the Resource Conservation and Recovery Act (RCRA) of 1976, it has been difficult to account for all the hazardous waste produced which explains why it is more difficult to be precise about the amount disposed. The passage of the RCRA, at least in theory, should have improved greatly the availability of data as generators of hazardous waste are required to create written documentation—the manifest—of the amount and content of every shipment of hazardous waste signed over to outside haulers and disposers. This manifest would be forwarded to state agencies upon final disposition of each waste shipment. However, the actual quality of the data produced was compromised for several reasons. One reason being that firms generating less than one metric ton (2,200 lbs.) of
hazardous waste per month are exempt from RCRA regulation. There are over four million privately owned industrial sites in the nation. The "small generators" exemption leaves all but a few tens of thousands of this sites out of RCRA's regulation and manifest system. Another reason is that some firms that generate significant amounts of hazardous waste have either failed to cooperate with EPA requests for data or have failed to identify themselves to EPA as regulable generators. Another reason is that those firms that appear to comply with reporting may not be reporting accurately the types of hazardous waste they generate. As a consequence, the amount and content of hazardous waste generation is still imprecise. Estimates like the historical accumulation amount of hazardous waste have been rising. In 1974, the EPA was estimating hazardous waste generation at 10 million


10Ibid., 20-23.
metric tons per year. In 1980, the EPA estimate had risen to 40 million metric tons. In 1983, new research by the EPA gave an estimate of 150 million metric tons, while the Office of Technology Assessment was estimating 250 million metric tons per year. Of the approximate total amount of hazardous waste actually generated, about 10-20 percent are treated by incineration. The remaining 80-90 percent is either landfilled or disposed of illegally. It is very likely that some of the percentage that is disposed of illegally is shipped across the borders.

Since the amount of hazardous and toxic wastes produced and the amount traded between the industrialized nations and West Africa for disposal are hardly or accurately accounted for, the degree of the problem caused by this international trade in hazardous and toxic wastes dumping in West Africa to lives and the environment can only be an approximation. The large population of local dwellers all across West Africa are faced with serious health threats and possible deaths from living with hazardous and toxic wastes dumped

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11U.S. Senate, The Need for a National Materials Policy. Hearings held by the Subcommittee on Environmental Pollution, Committee on Public Works, June 11-13, July 9-11, 15-18, p. 70.


14Ibid., 5-6.
carelessly that foul and pollute their air and drinking water. More often these people have no way of knowing the effects of these toxic alien substances except when there is an epidemic, as there are hardly health care facilities to monitor health problems. One can only imagine what happens in these West African countries where there is hardly any government regulation, environmental awareness/education, environmental movements and health care facilities.

There is also the problem of improper disposal of the hazardous and toxic wastes as a common practice of dumping. Since the schemes of dumping are clandestine in nature, usually carried out desperately and mindlessly without proper disposal techniques and information, the surrounding population more often pay the high cost with their health and lives. Compounding the problem of illegal disposal is the issue of organized crime entry into the hazardous waste disposal industry. For example, according to U.S. congressional hearing reports, many landfills were owned wholly or in part by organized crime figures, a legacy of past mob involvement in the garbage business in the United States.\(^{15}\) What possibly needs to be investigated in a further study is a possible connection of the type of waste disposal

trade brokers with unsavory characters who get involved in these waste dumping schemes and operate on the margin of the law, devoid of ethical considerations, who are connected with organized crime in the hazardous waste disposal business.

Also, the international trade in hazardous and toxic wastes adds to the already impoverished conditions of the West African region. The West African countries are poor countries that serve at the peripheral end of the world capitalist system. Being over-dependent on the World Bank and Western countries' financial assistance, some of these West African countries are tempted to see the hazardous and toxic wastes trade as an opportunity to earn foreign exchange that possibly could help them settle some of their outstanding debts. Though the attraction for the hazardous and toxic wastes trade may be the cash, more often West Africans settle for less money or nothing compared to what the Western waste disposal companies would otherwise have paid in the industrial countries to dispose of the wastes.

Also, given the wide publicity since 1988 on hazardous waste traffic from developed countries to the developing countries with all its attendant problems, calling attention to the lack of legally binding international instruments to control such traffic, an evolution of global convention for negotiations has emerged under the auspices of the United Nations Environment Program (UNEP). These developments have
also given cause for theorists to postulate many arguments on this trade. Some theorists perceive this trade in hazardous and toxic wastes as normal business, while many perceive this trade as dangerous to the human and the environment and advocate an outright ban. This study analyzes the liberal, the realists, the radical/marxists and dependency theorists' arguments on this international trade in hazardous and toxic wastes. It also attempts to ascertain which argument(s) better posit the problems and the growing perceptions of this international trade in hazardous and toxic wastes dumping.

**Definition of Hazardous and Toxic Wastes**

Waste as a common household term can be referred to as an unwanted by-product of consumption and industrialization. In this study, the emphasis is on toxic and hazardous wastes and deadly radioactive materials that are exported from the industrial Western countries primarily to West Africa. These kinds of waste are known to pose serious and challenging management problems and are poisonous and capable of causing death or serious injury to humans and animals, as well as damage to the environment.

The terms "toxic" and "hazardous" wastes are used often interchangeably though there is recognized difference. Toxic commonly refers to a narrow group of substances that are poisonous which could cause death by interfering with normal body physiology. Hazardous is a broader term that refers to
all wastes that are dangerous, including those that are toxic, and capable of posing an immediate and long-term risk to human health or risk to the environment due to their "quantity, concentration, physical, chemical, or infectious characteristics." 16

Nuclear waste, of all the hazardous waste, is the most deadly and dangerous, as it is highly toxic. The nuclear-weapons program and nuclear power plants for generating electricity are the two main sources of radioactive waste.

The U.S. federal facilities, for example, are involved in nuclear production. Some of these high-level wastes are so toxic that they must be stored for 500,000 years. It is estimated that approximately 3 million cubic feet of low-level radioactive wastes are produced yearly in the United States. These low-level wastes require safe storage for hundreds of years. 17

Nuclear energy has a major problem of how to dispose of spent fuel. Roughly one third of the nuclear fuel is replaced yearly. A 1000-MV reactor, for example, produces about 33 metric tons of highly radioactive material (approx.

16Environmental Science Technology 26, no.9 (1992): 1686.

which is capable of causing environmental and health hazard for as long as 10,000 years.\textsuperscript{18}

Studies indicate that in the United States hazardous or toxic wastes are seldom disposed of in safe manner; as a result toxic chemicals buried or dumped underground usually end up contaminating subsurface waters by a process known as leaching. If in the United States, with all the available technology, waste disposal is not always done safely, what safety is there in poor West African countries with no technology for handling the disposal of toxic and hazardous wastes?

\textbf{Historical Background of Wastes Dumping Trade in West Africa}

Toxic and hazardous wastes trade and dumping in West Africa is believed to have started in the mid-1970s. Available transboundary wastes trade flow data by Greenpeace, the U.S. EPA, and other agencies show a fair account of monitoring efforts on hazardous and toxic wastes trade flow between the industrialized countries and a dismal account of hazardous and toxic wastes trade or dumping between the industrialized countries and West Africa. There is also the failure to make the distinction between hazardous and toxic wastes exchange trade data and hazardous and toxic wastes dumping trade data. Because of the general

\textsuperscript{18}\textit{J. Wilson, Chemical Engineering News}, September 12 1988, p. 81.
lapse or difficulty in accounting accurately for the hazardous and toxic wastes trade flow in Africa, there is the tendency to draw conclusions that most of the transboundary hazardous and toxic wastes transfers take place among industrial countries and very little hazardous and toxic wastes transfers take place with developing countries, particularly West African countries. The fact is, hazardous and toxic wastes trade between industrialized countries and Africa, by its more often clandestine nature of operation, is hardly reported or documented. The hazardous and toxic wastes trade between industrialized countries is well documented and is more of hazardous and toxic wastes exchange trade on the basis of informed decisions, recycling technology exchange and on fair or equal cash exchange. Hazardous and toxic wastes dumping trade is mainly what goes on between industrialized countries and most of the developing countries, particularly West African countries. This type of waste trade is mostly based on uninformed decisions, unscientific or illegal disposal method and it is exploitative.

Although documentation of the hazardous and toxic wastes trade between the developed countries and West Africa has been sparse, the French were among the early culprits, exploiting their special relationship with francophone Africa as a means of transferring their unwanted wastes. It was also revealed in 1979 that an American company, the
Colorado-based Nedlog Technology Group Inc., had offered Sierra Leone $25 million to use its territory for waste disposal. The then-President Siaka Stevens was forced to backtrack on the deal under mounting pressure.\textsuperscript{19}

Since the summer of 1987, the following were the main waste disposal networks negotiating deals with Guinea-Bissau, Djibouti, and Senegal; the nebulous Italo-Swiss Intercontract-Jelly Wax group, the Gibraltar-registered Sesco Ltd., the Liechtenstein-registered Bawerk, the New Jersey-based Waste Export Management Co., and Norway's Bulk Handling Inc.\textsuperscript{20}

Djibouti in September 1987, turned down 2,100 tons of chemical waste that was shipped from the Italian port of Carrara under Jelly Wax's aegis. Intercontract signed a mega waste disposal deal with Guinea-Bissau that started the alarm of the waste trade in Africa. The Brussels-based lobbying group, L'Entente Europeenne pour L'Environment (EEE), blew the whistle that really got the attention of African states. Under the terms of the contract, Guinea-Bissau was to receive up to 500,000 tons of pharmaceutical and industrial waste from Switzerland at a price of $40 per ton.\textsuperscript{21}

\textsuperscript{19}Africa Report, September 1988, p. 48
\textsuperscript{20}Ibid.
\textsuperscript{21}Ibid.
For poor Guinea-Bissau, the prospects of earning up to $20 million was like a windfall. But, the big winner in this deal was really Intercontract because it would have cost the company up to $1000 to first incinerate and then recycle the waste in accordance with Common Market norms. Instead, the waste was to be dumped near the town of Farim in the northwestern part of the country close to the Senegalese border—and rumors had it that the land belonged to a close relative of President Vieira.

The supposed dump site is close to an EEC-funded fishing and agricultural project and threatened to pollute the entire region. According to a French expert:

...the site soil is extremely porous and marshy and it rains a lot too, so the drums of waste would have quickly leaked with their contents seeping into the water table.22

The Guinean authorities, alarmed by the uproar that developed, canceled the deal as well as a second, smaller agreement with British and American waste disposal firms.

In another report in May 1988 entitled, "Toxic Waste 'Secretly Dumped in Africa'," Richard Dowden informs about illegal export of toxic waste by British companies to Guinea Bissau. Richard states:

Euro-MPs from across the political spectrum are expected to condemn the large-scale sales of dangerous waste to Guinea Bissau. Allegations made by Belgian Green, Francis Roelants Du Vivier, state that Guinea Bissau has agreed to receive from one to three million tons of chemical waste a

22Ibid.
year for five years from Hobday Limited, based on the Isle of Man, and Empresa Bis Import Export Limited, based in London.

Mr. Roelants Du Vivier claims that as much as 10 percent of EC's production of toxic waste in bound for Guinea Bissau, flouting a 1988 EC directive on the export of dangerous waste.²³

In Guinea-Conakry, an official investigation was provoked by complaints that vegetation on the island of Kassa, just opposite the capital, Conakry, was turning brown and fetid fumes were making the air unbreathable. The result was shocking as it was learned that 85,000 tons of incinerator ash from Philadelphia was dumped in abandoned mines on the island, after having been rejected by Panama and Haiti.²⁴

Benin was also reported to have signed a contract with the Gibraltar-registered Sesco Ltd. to take between 1 and 5 million tons of diverse waste a year, albeit non-nuclear. The dumping site was to be near the historical center of the Fon Empire at Abomey, about 60 miles north of the capital, Cotonou. From a financial viewpoint, Benin got a raw deal, receiving under contract terms of mere $2.50 per ton.²⁵

Politically, the deal sparked uproar. Abomey was traditionally a hotbed of dissent against the Benin supremo. Dumping the waste there sparked opposition protests which

²⁵Ibid., 49.
followed army officers from Abomey being arrested and accused of plotting a coup. Of all the African states involved in the toxic waste trade, Benin undoubtedly has the most equivocal attitude.

According to a newspaper report, the Organization of African Unity accuses the Benin government of taking a shipment of French radioactive waste. Nigeria's case developed amidst shock by the news that toxic waste from Italy had been surreptitiously brought into the country for stockage at the port of Koko in Bendel state. The waste was shipped by the Livorno based companies. When the story broke in Italy, the Nigerian embassy in Rome did not take heed of this caveat to inform the Federal government in Lagos of the scam. It was Nigerian students in Italy who phoned the Lagos daily, The Guardian, who then published and triggered off a reaction by President Babangida's regime.

Upon investigation, it was discovered that the waste haphazardly stocked under the hot tropical sun was extremely deadly. Not only was there PCB, but also asbestos fiber and perhaps dioxin. The Federal government ordered these drums of toxic products to be shipped back to Italy. This incident before it was fairly arrested took many Nigerian lives. A more detailed case account of the Nigerian incident will be further discussed.

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26 Worldpaper/Journal of Commerce, Aug/Sep 1988, p. 6
The London-based newsletter, *Africa Analysis*, also carried the news of a British firm stockpiling up to 10 million tons of assorted waste products on the tiny Equatorial Guinean island of Pagalu, some 280 miles off Libreville in the heart of the fish-rich Gulf of Guinea. This development triggered an alarm. The island is of volcanic origin and its soil is like a sponge. It is not hard to imagine that the effects of sun, rain, and salt water would cause leaks in the drums, with the waste materials soaking into the ground and eventually reaching the sea where strong currents would send it all over the West African coastline causing ecological disaster.²⁷

In Sierra Leone, residents complained of choking fumes from more than 600 bags of hazardous waste containing ammonia formaldehyde. The waste was imported from Great Britain and buried in a local garbage dump.²⁸

The above incident of international shipments or exports of hazardous and toxic wastes to the various countries of West Africa according to environmental experts could well be the tip of the iceberg as several illegal dumping cases are hardly reported but imagined.

²⁷*Africa Report*, August 1988, p. 48

Methodology

The study is both theoretical and empirical. The empirical approach or case by case study analysis approach involves testing of the hypothesis in five West African countries. The countries will be sorted into two categories for the purpose of analysis - countries that import hazardous and toxic wastes and those that do not. It is important to draw a distinction here between hazardous and toxic wastes dumping trade and hazardous and toxic wastes import trade. As some of the countries (cases) studied show, the hazardous and toxic wastes dumping trade category involves states that are not directly involved in the hazardous and toxic wastes trade transaction or importation and/or cases where the states were misinformed and had no prior knowledge of any waste shipment(s), but later discovered hazardous and toxic wastes illegally imported into their countries. Several countries are listed under this category, but since information is scarce, some of these cases are listed as unclear in Fig. 3, and for this study unclear cases will be presumed to be dumping cases. However, the study has been able to find some valuable information on three countries. These countries are Guinea, Nigeria and Sierra Leone.

On the other hand, hazardous and toxic wastes import trade category reflect cases where the state was involved in the importation or transaction and at least was aware or
given prior knowledge of the hazardous and/or toxic wastes shipment(s). Two countries have been identified in this category. These countries are Guinea-Bissau and Benin. The two cases will provide interesting accounts of similarities and differences in the range of state behavior.

This study expects to find unique correlations from the case studies that fairly support the hypothesis that the international dumping trade in hazardous and toxic wastes follow the path of the poor, the corrupt or the uninformed and it is exploitative. For example, the social indicators of development of each country will rightly tell how rich or how poor the country is. Also, questions like: Was the waste trade based on informed or uninformed decisions?, will help clarify how informed the recipient or importing country was before making decisions to accept waste for cash. The study will explain exploitation by answering the question: Was the financial compensation for disposing the hazardous or toxic wastes in the recipient country fair or unfair? Fair and unfair in this context will be quantified as cash amount equal to or greater than or less than what it would otherwise cost to dispose such waste in the exporting country respectively. It is possible to make this determination by comparing how much was paid to the recipient country or agent and how much it could have cost in the exporting country to dispose of the same waste. Also, to ascertain the exploitative nature of this type of
trade, the study will address questions like: Was the country a victim of nefarious hazardous and toxic wastes trade brokers?

A theoretical study approach involves analysis of the international trade in hazardous and toxic wastes using the realist, radical/marxist, liberal and dependency approaches. The study conclusion gives the summary of the analyses of the five case studies--whether the hypothesis tested in all the cases has been fairly justified or not and posits which of the theoretical approach(es) paradigm--protectionism or liberalism vis-a-vis the international trade in hazardous and toxic wastes actually promotes proper economic development in the West African region.

**Hypothesis**

In working terms, this research hypothesizes that the hazardous and toxic wastes dumping trade in West Africa follow the path of the poor, the corrupt or uninformed and it is exploitative. It is exploitative because the hazardous and toxic wastes trade in West Africa is based largely on uninformed or corrupt decisions and the exchange is done for token amounts compared to what it would cost to dispose in the exporting countries. In genuine trading relationships, the calculation of risk should be done by both exporting and importing or recipient countries, especially by the recipient countries to determine if the risks outweigh the benefits. In the event that the
importing or recipient countries determine that the benefits exceed the risks, then hazardous and toxic wastes import may be allowed. But where the recipient or importing countries are uninformed and unable to play the role of assessing or determining the risks involved, then the onus is on the exporting countries to fully explain the risks involved in the exchange. This is why the exporting countries and their agents must accept more responsibility for all the problems of the waste trade. Too often, as illustrated in this trade of dumping (see Fig. 3), exporting countries and/or their agencies do not promote proper exchange of information and procedures of waste handling in this trade. Rather, the exporting countries have the tendency to misinform the recipient or importing countries by knowingly mislabelling their products or shipment. It is this kind of behavior by the exporting countries or their agents that makes this trade in hazardous and toxic wastes even more dangerous and easily explained as exploitative.

Significance of Research

It is hoped that the exposition from this research will add to existing literature on global environmental issues and trade in hazardous and toxic wastes. It will provide the much needed information to alert West African Governments to address the issue of implementing effective regulations to control or combat the deadly trade. Possibly too, by exposing the business aspect of the hazardous and
toxic wastes trade as this research will seek to accomplish, the African masses may begin to be informed and come to know more of the dangers involved in allowing their communities to be used as dumping ground for deadly waste. In so doing, engender awareness for environmental groups formation that may form the basis to help address the exploitation by government officials who see hazardous and toxic wastes deals as a means of amassing wealth.

The research will also bring to focus the political science perspective or contribution to the study of global environmental issues, in this case international political economy, as it relates to international relations and international trade.

Theoretical Framework

The theoretical framework for this study is the political economy which by extension focuses on the international political economy since the investigative analysis on toxic and hazardous wastes trade encompasses the international sphere. This study analyzes the international trade in toxic and hazardous wastes in West Africa using the four theoretical perspectives on international political economy: liberalism, realism (mercantilism), radical/realism and dependency. The dependency and radical/realist are considered radical approaches in this study. The two approaches though fairly identical are however analyzed separately. These theoretical perspectives serve as lenses
for viewing and interpreting the international political economy.

Review of the Literature

Before analyzing the international trade in wastes adopting the international political economy approaches and testing this study hypothesis through case-study of some West African countries, it is essential to review previous or related literature in the fields of international political economy, international trade, international relations, transboundary movements of hazardous wastes, and environmental protection and control. Examination of literature reveals non-availability of publication in the specific area of the study subject but few in the related fields. This is one major reason that has prompted this study.

Available literature on international trade tends to focus more on East-West trade and very little on trade between the industrialized countries and West Africa. In a book titled, The Politics of International Economic Relations, Joan Edelman Spero discusses the North-South System in comparison with the Western system. Sparo contends that the North-South relations are controlled by the North as a subsidiary of the Western system and this structure is perceived by the North as legitimate, whereas
the South perceives such structure as illegitimate. The South here representing developing countries and the North, developed market economies. Spero also raises the central question, which is debatable, whether it is possible to achieve growth and development in the South within the prevailing international economic system that is controlled by the developed market economies of the North. The same question, this study will attempt to answer in respect of international trade in hazardous and toxic wastes between the developed industrial countries and West African countries.

In a different argument, Norman Bailey writing on "Foreign Direct Investment and Environmental Protection in the Third World," contends that contrary to the widespread assumptions of the 1970s, detailed empirical studies during the 1980s have demonstrated that the environmental deterioration in the Third World is caused primarily by local, low-technology economic activities and by low per capita incomes, but not by advanced-sector direct investments in those regions. This contention, though


debatable, advances the argument on international trade, investment and the effects on environment which also applies to the waste trade.

In another book titled, *Overcoming National Barriers to International Waste Trade: A New Perspective on the International Movements of Hazardous and Radioactive Wastes*, Elli Louka takes a look at the waste trade issue adopting a legal-policy approach of prescribing minimum standards fortified with liability rules as a means of formulating a transnational waste management. Louka's premise of contention is that: 1. The combination of existing international legal instruments and public opposition has harmed waste management, and has spurred illegal waste transfers to even more unstable and fragile developing countries. 2. That the current prohibitory atmosphere has undermined what he describes as the dynamic dimension of wastes--wastes substances that can be recycled or reused and can save natural resources. To counter what the next question of how this transnational waste management will be enforced differently from the existing international legal instruments, Louka emphasizes on self-enforcement rather than enforcement. According to Louka, shortage of conventional forms of enforcement at the international level
and the scarcity of resources dictate more reliance on self-enforcement.\textsuperscript{31} In another literature by Barbara Kwiatkowska and Alfred H. A. Soons, titled, \textit{Transboundary Movements and the Disposal of Hazardous Wastes in International Law}, the authors examine the legal perspective and implications of the waste trade.\textsuperscript{32} The book discusses international conventions and resolutions that address the global concerns about the hazardous and toxic wastes trade.

On international political economy, David Balaam and Michael Veseth, in their book titled \textit{Introduction to International Political Economy}, discuss the meanings of political economy and international political economy (IPE) and the theoretical perspectives of IPE which is the main instrument of analysis in this study. Political economy is defined as the intellectual discipline that investigates the rich interface between economics and politics. International political economy is the extension of that investigation to the international level.\textsuperscript{33} On the


\textsuperscript{33}Balaam and Veseth, 12.
theoretical perspectives of IPE, Balaam and Veseth agree that there are a variety of theories that attempt to explain how the states and the nations should interact (normative theories) or how they really behave (positive theories). The authors also agree that different people give different names to the main IPE theories—a problem that is also the strength of IPE given its openness. Balaam assert that the three main IPE theories are: mercantilism, liberalism and structuralism or marxism. However, they encourage the consideration of many perspectives as examined below.

The Liberal Perspective

From the liberal perspective of international political economy, four elements are crucial in the context of international trade in hazardous wastes. First, this approach assumes that individuals, or by extension, companies, are the principal actors in the international system. Secondly, it conceives individuals as rational, self-interested beings who seek to maximize their own economic welfare by always seeking the lowest possible cost for themselves. Thirdly, it presumes that economics drives

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34Ibid., 15-16.

human interaction, and the laws of supply and demand, price and income order the market place in which welfare is most efficiently determined and distributed. And lastly, that government has a limited role in the liberal economic world. Adam Smith supports this notion when he maintains that "the uniform, constant, and uninterrupted efforts of every man to better his condition, the principle from which public and national interest, as well as private opulence is originally derived, is frequently powerful enough to maintain the natural progress of things toward improvement, inspite of both extravagance of government, and the greatest errors of administration." 36

Liberals maintain that certain imperfections may exist in the market place mainly due to misguided policy by some individuals to subvert the market. Government, according to the liberals, should regulate the market. But in a more modern concept, liberals see government's role as that of intervening in markets only when there is a "market failure" 37 or to provide a "public good" that cannot be provided by economics. 38 An additional liberal assumption is


38For an introduction to international public goods and the problems of international cooperation in providing them,
that under free exchange, society as a whole will be more wealthy, but individuals will be rewarded in terms of their productivity and relative contribution to the overall product of the society.\textsuperscript{39}

Liberals in essence believe that economics tend to unite people, and that trade and economic exchange are a source of peaceful relations among nations as the mutual benefits of trade and the expanding interdependence among national economies tend to bring about cooperative relations. A liberal international economy is therefore presumed to have a moderating influence on international politics as it is capable of creating bonds of mutual interests and a commitment to the status quo.\textsuperscript{40}

\textbf{Critique of Liberal Perspective}

Liberalism can be described as a set of analytical tools and policy directives that is capable of helping a society to maximize its return from scarce resources. Its strength is very much in its commitment to efficiency and the ability to maximize the total wealth. Liberals from Adam Smith have been seeking to discover the laws governing the wealth of nations.


\footnotesize{\textsuperscript{39}Gilpin, 244.}

\footnotesize{\textsuperscript{40}Ibid.}
The major criticism made against the liberal approach is that its basic assumptions, such as the existence of rational economic actors, competitive markets, and the like, are unrealistic. Liberal economics as a means of understanding society, and especially its dynamics, is limited and therefore cannot serve as a comprehensive approach to political economy. Liberal economists have tended to forget this inherent limitation, to regard economics as the master social science and allow economics to become imperialistic.

One of these limitations is that economics artificially separates the economy from other aspects of society. The liberal frame of reference is one of homogeneous, rational, and equal individuals living in a world free from political boundaries and social constraints. Its "laws" prescribe a set of maximizing rules for economic actors regardless of where and with what they start; but in real life, one's starting point most frequently determines where one finishes.41 There is some truth in the marxist criticism of the liberal approach as a tool kit for managing a capitalist or market economy.

The liberal approach is limited by its assumption that exchange is always free and occurs in a competitive market between equals who have full information and are therefore able to gain mutually if they choose to exchange one value

41Ibid., 41.
for another. This fact is proven in the uneven waste trade exchange between the developed countries and the West African countries. Although liberals argue that exchange is seldom free and equal, unfortunately, the terms of an exchange can be seriously affected by coercion, differences in bargaining power and some political factors. Also, the liberal approach is limited by the fact that its analysis tends to be static with the array of consumer demands, the institutional framework, and the technological environment accepted as constant on the short run. As the marxists contend, liberalism lacks a theory of the dynamics of international political economy and therefore tends to assume the stability and the virtues of the economic status quo. The liberal approach with its laws for maximizing behavior, is based on a set of highly restrictive assumptions.

**Mercantilism**

Mercantilism was the first international political economy perspective that developed with the rise of nation-states in Europe in about the seventeenth century. It is defined in terms of states efforts to promote exports and limit imports, thereby generating trade surpluses to create wealth and power. In the 16th through mid-19th century, mercantilism meant the practice of states seeking to pursue supremacy over one another by accumulating gold and silver bullion, colonizing developing regions of the world, and
trying to produce trade surpluses.\footnote{42Balaam and Veseth, 22.} Since the emergence of competing nation-state system of Western and Central Europe, governments or states have added to their accumulation of military arsenals a variety of economic means and policies to protect themselves and groups within their sphere of authority. Several terms or variants have become synonymous with mercantilism; like economic nationalism, realism, and neomercantilism. Each of these variants connotes the different ways states use wealth and power to protect their industries and other national interest.

**Economic Nationalism**

Mercantilism was popular for some states that tried to overcome economic condition to make themselves more competitive with Great Britain from the late 18th to mid-19th century. Many states during this period adopted a variety of protectionist measures to improve citizen welfare. For example, in the United States, Alexander Hamilton views on a strong central government were popular with those who looked for employment opportunities in manufacturing, with businesses that wanted to attract foreign capital and with public officials who wanted more security and independent nation.\footnote{43Ibid., 26.} However, Hamilton is
remembered for favoring, reluctantly, the use of tariff to limit imports.

Economic nationalism had much in common with the ideas of the German Friedrich List. List disagreed with Smith's and Ricardo's liberal view that all nations could gain from trade if governments did not regulate it excessively and industries produced goods for which the nations had a comparative advantage. List convincingly argued that liberals wrongly assume there was a "cosmopolitical" world made up of relatively equally powerful nations that were in agreement with each other to share the benefits of trade. List rather contended that the real world situation was that as the economy shifted from an agricultural to industrial base, states had to protect domestic industries in order to level up with lead states.

The central idea of economic nationalism is that economic activities are and should be subordinate to the goal of state building and the interest of the state. All nationalists ascribe to the primacy of the state, national security, and the military power in the organization and functioning of the international system. Economic nationalists stress the role of power in the rise of a market and the conflictual nature of international economic relations; they argue that economic interdependence must have a political foundation and that it creates yet another

44Ibid., 27.
arena of interstate conflict; increases national
vulnerability, and constitutes a mechanism that one society
can employ to dominate another. Political factors do, or at
least should, determine economic relations.

Critique of Economic Nationalism

The foremost strength of economic nationalism is its
focus on the state as the predominant actor in international
relations and the instrument of economic development. The
second strength of economic nationalism is its stress on the
importance of security and political interests in the
conduct of international economic relations. The third
strength of the economic nationalism is its emphasis on the
political framework of economic activities, its recognition
that markets must function in a world of competitive groups
and states. One weakness of economic nationalism is its
tendency to believe that international economic relations is
dependent at all times on a zero-sum game, that is, that one
state's gain must of necessity be another's loss. Another
weakness of the economic nationalists is due to the fact
that the pursuit of power and the pursuit of wealth usually
do conflict, at least in the short term.

Neomercantilism

Neomercantilism is an upgraded form of post World War
II mercantilism that accounts for a qualitative change in
the international political economy generated by
international economic interdependence. Under neomercantilism, states have again found it necessary to develop and employ even more sophisticated protectionists trade, monetary, investment, and other economic policies that were not overly, but nonetheless mercantilist and economic nationalist in nature. As more nations saw the protection of their domestic industries in terms of their security interest, they tried newer and more sophisticated but less intensive economic ways. For example, the economic recovery and increasing power of Japan, was one of the developments that set the tone for the kind of protectionist policies that were to become synonymous with neomercantilism. After the war, Japan adopted a carefully thought-out, mercantilistic strategy of running a trade surplus to finance its industrial recovery and development. The state worked closely with corporate officials and Liberal Democratic Party members to direct the development of Japan economy. Government subsidies and other forms of support were readily made available to some chosen industries to make them more competitive with United States and European firms. Japan's export-led industrial economic growth strategy was adopted by a number of other Asian Newly Industrialized Countries. The most successful among them were Singapore, Taiwan, and South Korea. Hong Kong had similar policies set by the British imperial government.
Neomercantilism in the postwar era was also driven by the globalization of multinational corporate activity. Many states found it in their best interest to adopt policies that link multinational corporation investment to national economic objectives.

Critique of Neomercantilism

Liberal critics believe that neomercantilism works to the detriment of all nations, that it generates more protectionism and makes it hard for market forces to properly influence prices as well as consumer and government decisions. Another version of neomercantilism is the practice of "industrial espionage."45

Many states and/or national industries have been involved in the practice to acquire information and technology through clandestine activities. Neomercantilism has yet to address itself to global environmental issues.

Realism

The ideas of mercantilists and realists have often been lumped together and in many ways these two approaches have the same assumptions, though in some ways they differ. In analyzing the international trade in wastes, the realist approach is preferred over other mercantilist approaches in this study.

45Ibid., 34.
Realism has origin or history starting with Thucydides' writings in 400 B.C. and includes Niccolo Machiavelli, Thomas Hobbes, and the mercantilists Jean-Baptise Colbert and Friedrich List. Though discredited for the rise of Liberalism in the nineteenth century, realism reemerged in the aftermath of the Great Depression of the 1930s as an important international political economy approach. Unlike liberals and radical/marxists, realists perceive that politics determines economics.

There are three primary assumptions of realism. One, realists see nation-states as the dominant actors in the international system and the proper unit of analysis. According to realists, the international system is anarchical, a condition under which nation-states are sovereign, the highest authority. Realists recognize that other actors operate in the international system, like, multinational corporations, international organizations, and non-governmental organizations. Since nation-states are the predominant actors, other actors are given as much freedom of operation as nation-states permit.

The second assumption is that realists reason that nation-states are rational, self-interested actors competing with each other in the international system. Realists have a Hobbesian conception of reason as a means to achieve an end. This means that one should not expect all nation-states to have the same objective. Nation-states too are
egoistic. Nation-states behave in ways that further their self-interest. Nation-states according to realists have their interest quite apart from those of other actors in the domestic and international sphere. In short, states are conceived as unitary actors in ways that support and further their interest.46

Thirdly, realists assume that politics takes precedence over economics. Indeed, economics is a function of politics. Realists reason that in a world of zero-sum game, self-interested nation-states would rather win than lose.

Realists assume the nation-states are power maximizers. Nation-states are assumed to perform cost-benefit analyses and choose the option which yields the greatest value, in this case, the one that maximizes power. This assumption of power maximization gives realism its distinctive perspective to international political economy. In the pursuit of power, nation-states shape the international economy to best serve their desired ends.

Realist political economy, given all its assumptions, is primarily concerned with how changes in the international power affect the form and type of international economy.

Critique of Realism

The realists state-centric and power assumptions appear to ignore the role of international organizations in global environmental protection. Because of the failure to give consideration to non-state actors, realism appears therefore too simplistic a theory. Critics claim the system is a deterministic notion, too "Hobbesian" in its underlying philosophy and is a self-fulfilling prophecy. Other critics think this theory is based on unrealistic assumptions. There is also a failure to consider other motivating concerns apart from national interest. The theory is considered ahistorical.

Mercantilism and Realism: Complementary Philosophies

Many of the tenets of mercantilism necessarily complement those of realism as mercantilism accounts for some of the ways that politics, power, and the state affect the economy and the markets. Realists as well as mercantilists assume the nation-state as the primary actor in an international system because it is the highest sovereign political authority. For most modern neomercantilists, the ability of the nation-state to generate wealth is as important as its capacity to produce military weapons. Both realists and neomercantilists agree that state competition and the unequal distribution of the world's resources generate dependence of states on other
states. One slight difference though between realists and modern neomercantilists is the emphasis realists put on military instruments and similar state abilities to make the state secure.

The Radical/Marxist Perspective

This theoretical framework has a marxist underpinning and serves as a critique of the liberal approach. The marxists emphasize the role of capitalist imperialism in the creation of a world market economy. These marxists are divided between the followers of V. I. Lenin, who argued that relations among market economies are by nature conflictual, and those of Karl Kautsky (Lenin's chief protagonist), who believe that market economies (at least the dominant ones) cooperate in the joint exploitation of the weaker economies of the globe.

The radical/marxist perspective focuses also on the moral consequences of the society organized on the principle of self-interest. The radical/marxist perspective here appears to serve as a critique of the liberal perspective. For example, radicals/marxists view reason and self-interest as unnatural and negative human and social attributes while the liberals consider them natural and positive. The radicals/marxists perceive that the majority of humans are rendered miserable by the liberal conception of limited
government and their market economics. Radicals/marxists believe that by allowing humans to pursue their own selfish interests, the world does not grow and develop and become more peaceful and congruous; rather the pursuit of one's individual self-interest leads to gross inequalities of condition and the exploitation of the majority by the minority. Radicals/marxists believe the liberal pursuit of self-interest leads to morally unjust social outcomes.

Radicals/marxists construct of society is that it is made up of socio-economic classes which serve as the basic unit of analysis since class transcends all strata of social formation. The division of society along class lines that radicals believe is a consequence of liberal establishment, makes individuals not to see the common interest that all humans share. For example, liberals concept of competition, differentiation and specialization in society create the divisions among individuals. Radicals/marxists see history replete with the struggles between capital and labor, between rich and poor, between majority and minority. Radicals/marxists, therefore, contend that in order to

48 Ibid., 34.
49 Ibid., 34.
eradicate conflict, class differentiation must be done away with by the state.

The radicals/marxists conceptualization of government institution is that, it reflects the interest of the capitalist, market oriented class. And for the state to take on the role as the provider of social and economic equity, radicals see a problem, since, to them state reflects the class that controls the instrument of power. Radicals/marxists therefore recommend that in order to create a world of social justice and economic equity, power must be transferred to the economically disadvantaged and the politically impoverished class, and the political and economic system should be revolutionized. To the radicals/marxists, politics is defined by economic relationship. Furthermore, politics ought to serve the interests of social justice and equity within and among states. This perspective contends too that economics drive politics.

Critique of the Radical/Marxist Perspective


52Montgomery, 35.
The radical perspective is in itself very much a critique of the liberal political economy. The marxist perspective or marxism as a defining theory properly orders the economic problem—the production and the distribution of material wealth where it should be—at or near the center of political life. Unlike liberals that tend to ignore the issue of distribution, the marxists focus on both the domestic and the international effects of market economy on the distribution of wealth. Another contribution of marxism is its emphasis on the nature and structure of the division of labor at both the domestic and the international levels. The marxist theory of international political economy is also useful in its focus on international political change. Whereas liberalism has no comprehensive theory of social change, marxism emphasizes the role of economic and technological developments in explaining the dynamics of international system. The marxist theory of international political economy is therefore a useful focus on international political change. As emphasized in Lenin's argument of uneven development, the different growth of power among states explain the underlying cause of international political change.

In spite of its proper focus on political change, critics share that the principal weakness of marxism as a theory of international political economy lies in its failure to appreciate the role of political and strategic
factors in international relations. Marxism also suffers from ideological differences among protagonists. The next section reviews the dependency approach that also favors protectionism.

The Structuralists Perspective

The basic ideas of the structuralist approach were developed simultaneously in the 1950s by several economists and by the United Nations Economic Commission for Latin America (ECLA), but did not gain international prominence until the 1964 publication of the report "Towards a New Trade Policy for Development." This report was written by Raul Prebisch, then the newly appointed Secretary-General of the United Nations Conference on Trade and Development (UNCTAD), which brought about the structuralist argument that the world economy was biased against the development efforts of the less developed countries. 53

The structuralist argument contends that the world economy is composed of a core or the center of highly industrialized countries and a large underdeveloped periphery. Secondly, that technical progress which leads to increasing productivity and economic development is the driving force in the system, whereas technical advance has different effect for the industrialized center and the

nonindustrialized periphery due to past inherited structural features of the less developed economies and to the international division of labor.\textsuperscript{54}

The structuralist argument falls between liberalism and Marxism.\textsuperscript{55} Like marxist analysis, structuralist analysis contends that the international market structure perpetuates backwardness and dependency in the South and encourages dominance in the North. Following this view, the market tends to favor the rich and undermine the less developed. Too, that unregulated international trade and capital movements will accentuate, not diminish, international inequalities.

The structural bias of the international market, according to this approach, rest at large on the inequalities of the international trading system. In short, trade does not serve as an engine of growth but indeed widens the North-South gap. The system creates declining terms of trade for the South. The inflexible demand for primary product exports of the less-developed countries and the existence of competitive international markets for those

\textsuperscript{54}Ibid.

products result in lower prices for Third World exports. Also, the monopoly structure of the Northern markets and the rising demand for manufactured goods lead to higher prices for the industrial products of the North. International trade under these conditions, transfers income from the South to the North.

Structuralists argue too that international trade creates an undesirable dual economy. Specialization and concentration on backward export industries by the Southern economies do not fuel the economy as supposedly alleged by the liberals. Rather, trade creates an advanced export sector that has little or no effect on the rest of the economy and drains resources from the rest of the economy. This situation creates a developed and isolated export sector together with an underdeveloped economy.

According to the structuralists, another area of bias is in foreign investment which more often are designed to bypass the South where profits and security are lower than in the developed market economies. The structuralists contend too that whenever investment does flow to the South, it tends to concentrate in export sectors which help in aggravating a dual economy and negative effects of trade. Also, foreign investment leads to a flow of profits and interests to the developed, capital-exporting North.

Structuralists have advocated several policies to deal with these problems. One policy is the creation of
international organizations like UNCTAD to promote the interest of the less developed countries especially the exporting of manufactured goods to the developed countries of the North thereby break the cycle of circular causation. Secondly, the enactment of international policies and regulations, such as a commodity stabilization program that protect earnings of less developed countries of the South. Thirdly, the rapid industrialization to overcome the South's declining terms of trade and absorb its labor surplus. The South should pursue an "import-substitution strategy" through policies of economic protectionism, encouragement of foreign investment in manufacturing, and creation of common markets among the less developed countries of the South.

Critique of the Structuralist Perspective

The first critique of the structuralists arguments is their concept of "the terms of trade" is itself confused, difficult to measure, and highly indeterminant over the long term. Secondly, the terms of trade between South and North can be of less importance than other considerations such as the overall volume of trade and benefit of trade in modernizing the South. Thirdly, the causes of the disparity between the North and South or between the periphery and core are to be found primarily within the less developed economies.

Whatever the merits of the structuralists arguments, their views and solutions had fallen into disrepute by the
mid-1960s. The dependence of most of the less developed countries (LDC) on commodity exports continued, the LDC need for manufactured imports increased and led to severe balance-of-payments problems, and the strategy of import substitution encouraged the manufacturing multinationals of the North to expand into the South markets raising fears of capitalist imperialism.\textsuperscript{56} Given the above stated outcomes of this approach in the 1960s and the fact that the approach falls between liberalism and marxism, a radical dependency approach that will be reviewed in the next section appears a more appropriate approach for this study model.

Dependency Perspective

A central component part in dependency theory is the marxist critique of capitalism developed by Lenin and others. This theory explains the expansion of the core into the less developed periphery of the world economy. The core is driven by under consumption due to over production and the falling rate of profit at home to expand and dominate and exploit the less developed countries. This situation leads to a hierarchical structure of domination by great powers of the industrial core.\textsuperscript{57} Dependency theory, however, differ in many aspects from the traditional marxist analysis

\textsuperscript{56}Ian Roxborough, \textit{Theories of Underdevelopment} (New Jersey: Humanities Press, 1979), 33-35.

\textsuperscript{57}Gilpin, xiii.
of capital imperialism. Dependency substitutes economic for political means of subordination. In short, dependency theory replaces formal political colonialism with economic neocolonialism and indirect control. Although marxist capitalist development theory agrees with the existence of an "external" dependence, it fails to acknowledge underdevelopment in the way dependency sees it, as a consequence and part of the process of the world capitalist expansion. The thrust of the dependency theory, therefore, is that the world capitalist expansion is responsible for underdevelopment at the periphery.

Dependency theory is a model of economic and social development that seeks to explain West African (indeed global) poverty in terms of the historical exploitation of poor societies by rich societies. According to Theotonio dos Santos as quoted by Daniel A. Offiong, dependency is:

a situation in which a certain group of countries have their economy conditioned by the development and expansion of another economy, to which the former is subject. The relation of interdependence between two or more economies, and between these and the world trade, assumes the form of dependence when some countries (the dominant) can expand and give impulse to their own development, while other countries (the dependent) can only develop as a reflection of this expansion.... In all cases the basic situation of dependence leads to global situations in dependent

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58Gilpin, 284.

countries that situate them in backwardness and under the exploitation of the dominant countries. The dominant countries have technological, commercial, capital resource, and social-political predominance over the dependent countries (with pre-dominance of some of these aspects in various historical moments). This permit them to impose conditions of exploitation and extract part of the domestically produced surplus.60

Santos notes too that dependency has a historical form and a contemporary form. The historical form included colonial experience and slavery, especially for Africa. The contemporary form is the process of development conditioned by the exigencies of the international commodity and capital markets. For examples, a) International Monetary Fund (IMF) and Debt Crisis in Sub-Saharan Africa. b) trade relations which take place in a highly monopolized international market, which tends to lower the price of raw materials and raise the prices of industrial products.61

Though the theorists of dependency differ in their definitions of main causes of underdevelopment brought about as a result of the relationship of the advanced capitalist to less developed economies, two concepts discussed in this study appear common--the exploitation concept and the concept of dependent development.


61Dos Santos, 197.
The "exploitation" concept holds that the Third World is poor because it has been systematically exploited. According to Robert Gilpin, the underdevelopment of the Third World is functionally related to development at the core and the periphery by the modern world system. The developed core is permitted by the world system to drain the periphery of its economic surplus, sucking wealth from the less developed to the developed capitalist economy through trade and investment.

The other concept, the "dependent or associated development," is the most recent interpretation of the dependency theory. This concept argues that, although in some circumstances, dependency relations could lead to rapid economic growth like the cases of Brazil, South Korea and Taiwan, this type of growth is not true development as it does not lead to national independence.

Dependency theorists agree that continued economic dependency is very much a limiting condition on economic development and the consequences are many for developing countries. Some of the obvious consequences include: a) over-dependence upon raw materials exports with fluctuating prices, which causes economic instability; b) a mal-

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64 Evans, 1979, referenced by Ibid., 285.
distribution of national income, which creates in the elite inappropriate tastes for foreign luxury goods and neglects the true needs of the masses, which reinforces social inequalities and external domination; c) an international division of labor created between high technology of the core and the low technology of the periphery; and d) reliance on foreign capital, which generally encourages authoritarian-type governments that cooperate with and give foreign corporations the political stability they need.65

Another important component of dependency theory is the assertion that a dependent country is fastened to the world economy by transnational class linkage. A common interest or alliance of convenience exists between core and the clientele class or the national bourgeoisie in power in the dependent economy. This parasitic alliance is made up of agrarian interests, the military, the national bourgeoisie.66 At issue here is that the national bourgeois elites more often pursue the interest of their own class rather than being true patriots and defenders of the society against international capitalism.

Critique of Dependency Approach

Dependency theory is correct in emphasizing the dependency of the world's societies. Dependency theory is

65Ibid., 287.
66Ibid.
accurate too in emphasizing that the historical linkage is important in understanding the present poverty and wealth of nations. It treats wealth as a zero-sum commodity. Dependency predicts that nations with the strongest ties to the West should be the poorest, but, this is not always true. Dependency ignores the role of traditional culture in maintaining poverty. Critics argue that the policy implication of the theory is unclear.

Apart from the solutions offered by the different theoretical approaches to the problems of international trade in toxic and hazardous wastes that exacerbates global environmental pollution, two literature have advanced investment in clean technology as environmental or transboundary pollution control solution. Frederick Van Der Ploeg and Aart J. De Zeeuw in an article titled, "Investment in Clean Technology and Transboundary Pollution Control," have advanced a mathematical model on transboundary pollution that illustrates how a government can effectively deal with the pollution externality within a country by means of emission charges and how government can jointly deal with the pollution externality between countries by means of coordinating emission charges.67 This framework

permits the analysis of elements of the environmental debate between optimists who favor growth in order to have resources to invest in clean technology, and the pessimists who advocate the banning of production and the by-product pollution.

In another book titled, *Earth in the Balance*, Al Gore in his second strategic goal of the Global Marshall Plan, proposes a worldwide development of a Strategic Environment Initiative (SEI)\(^ {68}\) that would discourage and phase out older, inappropriate technologies and replace them with sophisticated and environmentally sensitive technologies that reduce or eliminate the production of polluting wastes.

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CHAPTER II
THEORETICAL ANALYSIS

From the reviewed literature provided in the preceding chapter, this study prefers a radical treatment adopting the radical/marxist perspective and the dependency approach. These approaches, though they have much in common, will be treated as separate. The choice of a radical approach is primarily to properly address the problems involved with the waste trade as it focuses more on the moral consequences of the society organized on the principle of self-interest. Also, the realist approach is preferred over mercantilism, economic nationalism and neomercantilism given the similarities of these approaches. In all, four theoretical perspectives arguments are analyzed in this study--the liberal, the realist, radical/marxist, and dependency in respect of the international trade in hazardous and toxic wastes.

**Liberal Perspective and the Waste Trade in West Africa**

Experts of liberalism or liberal theoretical underpinnings seem to see this trade as normal business and refute the fact that developing countries, particularly African countries, are made dumping grounds. Rather, they
assert that the overwhelming majority of the transboundary transfer of toxic and hazardous wastes take place among industrialized countries. The liberals contend too that very little waste transfers take place with developing countries, particularly African countries. This contention is very debatable given, for example, that the United States EPA account of the amount of hazardous waste generation and disposal have been very much imprecise estimates.

The central logic of liberalism supports dumping on the poor in the Third World. This perspective appears to serve as the basis of Western policies that drives the international trade in hazardous and toxic wastes dumping in the Third World, particularly West African countries. The liberals' reasoning is condemned because of the utter contempt it displays both for the world's poor and the world's environment. The liberals' arguments that stand opposed to the general international perception about the international trade in hazardous and toxic waste trade has prompted the need for this study. There has been a tendency by the liberals to overtly ignore the growing global concern on transboundary trade in hazardous wastes in their pursuit to justify this dumping trade on the poor and the uninformed as good business.

In general, liberals support the international trade in hazardous and toxic waste in West Africa because they argue that this trade promotes the efficient allocation of
resources. According to the liberals, industries generate hazardous wastes, and in their pursuit of self-interest, they seek the lowest disposal price. Also, individual brokers enter the market, more often in violation of legal or ethical standards to make profits at every risk. The contention therefore by liberals is that waste trade is driven by economics.

Some experts agree too with this notion by the liberals that waste trade is fueled by economics. The editors of Global Dumping Ground contend that a powerful economic equation drives the global trade in poisons: mounting piles of hazardous waste, shrinking supply of disposal sites and exorbitant profits for people who can get rid of it—legally or illegally.1 Strohm agrees too that "waste trading is revenue-driven, taking advantage of dramatic new profit opportunities."2

Critharis in support too explains that:

successful waste trade schemes continue to bring thousands of tons of hazardous waste to the Third World. The economic incentives offered by international waste trading is attractive to the waste generators, trade brokers, and government officials. Moreover, if the price is right, destitute individuals and countries may be tempted

1B. Moyers Center for Investigative Reporting, Global Dumping Ground (Washington: Seven Locks Press, 1990), 3.

to allow their territories to become dumping grounds for the industrialized world.³

Price to the liberals appears to dictate the flow and movements of transboundary waste. Price also, is dependent upon a number of factors that include, land, labor and capital cost. The liberals start by outlining market factors that influence the price of hazardous waste disposal. For example, Strohm lists some geographical and geological factors that influence the cost of land used for hazardous waste sites as:

- easily accessible to transportation, located in the areas of low population density, have low alternative land value, [are] on poorly permeable, high-clay soils, on flat terrain, not over fractured bedrock, away from high water tables, and in the area of low rainfall and high evaporation.⁴

To meet these conditions, liberals argue, is rare and these land-based criteria are scarce. As a result of scarcity of supply, the price of hazardous waste disposal is driven up.

Liberals argue too that labor factors drive up the price of hazardous waste disposal. A 1989 World Bank report states that waste management has become an interdisciplinary field, requiring expertise in a number of technical specialties, including civil, chemical, mechanical, and electrical engineering, the biological science, chemistry


⁴Strohm, 39-40
and physical sciences, mathematics, operational research and system analysis, financial analysis, economics, computer technology and applications and others. It follows therefore that the price of an environmental disposal site will take into account the cost of recruiting and maintaining skilled work force.

The third consideration liberals point out is capital to create an ideal waste disposal facility. The argument here is that the technology needed to manage waste most efficiently is expensive. Because of the fact that some waste can retain their toxicity for hundreds and sometimes thousands of years, heavy capital investment for the treatment and disposal facilities over the long term will therefore be needed. Liberals argue that if the normative goal is to provide maximum, long-term protection to human health and the environment, the current price of hazardous waste disposal must require the continuing high cost of capital investment.

By extrapolation from general economic principle, liberals predict that markets will fail to provide non-economic values like protection of the human health and the environment. Liberal analysts of the waste trade therefore

contend that the public welfare demands some form of
government intervention in the international markets to
insure that hazardous waste is handled "properly and
safely." This argument for government regulation or
intervention in the market mechanisms to insure proper and
safe hazardous waste disposal remains the theoretical core
of the liberal analysis of the international waste trade.

In a memo which leaked out to the press, Lawrence
Summers, an orthodox economist, makes yet another liberal
assertion of his view of the world environment saying:

..., shouldn't the World Bank be encouraging more
migration of the dirty industries to the LDCs
[Less Developed Countries]? I can think of three
reasons:

(1) The measurement of the costs of health-
impairing pollution depends on the foregone
earnings from increased morbidity and mortality.
From this point of view a given amount of health-
impairing pollution should be done in the country
with the lowest cost, which will the country of
the lowest wages. I think the economic logic
behind dumping a load of toxic waste in the
lowest-wage country is impeccable and we should
face up to that.

(2) The costs of pollution are likely to be non-
linear as the initial increments of pollution will
probably have very low low cost. I've always
thought that under-populated countries in Africa
are vastly under-polluted; their air quality is
properly vastly inefficiently low [sic] compared
to Los Angeles or Mexico City. Only the
lamentable facts that so much pollution is
generated by non-tradeable industries (transport,
electrical generation) and that the unit
transport costs of solid waste are so high and
prevent world-welfare-enhancing trade in air
pollution and waste.
(3) The demand for a clean environment for aesthetic and health reasons is likely to have very high income-elasticity. The concern over an agent that causes a one-in-a-million change in the odds of prostate cancer is obviously going to be much higher than in a country where people survive to get prostate cancer than in a country where under-five mortality is 200 per thousand. Also, much of the concern over industrial atmospheric discharge is about visibility-impairing particulates. These discharges may have very little direct health impact. Clearly trade in goods that embody aesthetic pollution concerns could be welfare-enhancing. While production is mobile, the consumption of pretty air is a non-tradeable. The problem with the arguments against all of these proposals for more pollution in LDCs (intrinsic rights to certain goods, moral rights, social concerns, lack of adequate markets, etc.) [is that they] could be turned around and used more or less effectively against every Bank proposal for liberation.⁶

Though this memo was denied as an official opinion of the author, the contents of the memo made the point about the liberals' viewpoint on the global environment. A serious contention in this memo that attracts attention is that individual lives in the Third World, especially in West Africa, judged by their "foregone earnings" from sickness and death, are worthless and in comparison with the individual lives in the advanced countries are hundred times less. Therefore, the poor in the periphery are the ones to be dumped on if the overall economic value of human life is to be maximized worldwide. Too, if polluting industries were shifted from the industrial to the poor countries,

worldwide costs of production would fall. This is indeed an open display of an exploitative attitude towards the world's poor countries.

Liberals also advance solutions to the problems of the Waste Trade with a long list for correcting the market failures that may result from free trade in hazardous and toxic wastes. These include, the harmonization of definitions and standards of wastes, prior informed notification and consent, and rules on international liability, the creation of an international emergency fund, waste reduction and minimization at its source and redefinitions of state sovereignty.

**Harmonization of Definitions and Standards**

Is it possible that all states can agree on a definition of hazardous or toxic waste? Because of differing definitions of hazardous waste by the different countries, it has been fairly difficult to regulate transboundary movements of hazardous or waste. In this regard, liberal theorists agree that decisions concerning which kinds or classes of waste are to be controlled are the underlying factor of any control system. In the absence of

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common definitions, the international community has only been able to make up control systems that acknowledge that hazardous waste is a term that is so defined under the domestic law of a particular country. Much as the liberals insist on common definitions, in reference to the trade in waste with Africa or West Africa, harmonization of definitions may not serve any useful purpose if the exporting countries are not honest in their definition or classification of any waste exported. This form of control presumes all waste trade are cases of official waste trade between governments. How will this control address desperate and willful dumping of toxic and hazardous wastes in poor uninformed Third World countries by waste exporters or brokers who do this by mislabelling as a common trade practice in West Africa? The argument here is that consistency in definitions is not enough guarantee to ensure safe management of hazardous waste.

Brain Wynne supports this argument and contends that because waste treatment and disposal standards are very high in industrialized countries; these countries should prohibit shipments of their waste to countries where management standards are less stringent since prospects for

standardization through international cooperation are "illusory."¹⁰

Hilz and Ehrenfeld agree with Wynne by making the same argument linking the harmonization of management with the price mechanism.¹¹ Both contend that if all countries were to have similar ways of waste management, there should be no differences in the disposal prices in the Third World and the industrial countries. At issue with this argument is that, without price differentials, the incentive to ship wastes across borders would diminish.

Helfenstein on standardization of management, goes a step ahead to propose that countries with the more stringent waste management should impose such management on other countries. For example, she writes that "the United States should prohibit the export of hazardous substances (waste inclusive) except when satisfied that the recipient or importing country has the information and technology to handle hazardous wastes."¹² The question with such a

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proposal is, would the U.S. government be able to control importing or receiving states to conform to its definition of standards? Obviously not, as these states may likely see such a move as an imposition of American management standards.

Prior Informed Notification and Consent

The major problem of the waste trade is that more often trade with poor countries, is based on uninformed decisions. Liberals argue that lack of complete knowledge about the trade is the greatest market imperfection. However, this problem is related to cases of official importation between governments. It never holds for cases of waste dumping trade. Many times importing states are unaware of what exactly they are importing or what exporting countries want to dump on them for cash. Some waste agents mislead importers by mislabelling while others lie about the contents of the shipment.

Liberal theorists like Lothar Gundling and Cyrus Mehri contend that countries or the international community as a whole, can right this market imperfection by requiring waste brokers to provide importers with accurate information well in advance of the actual shipment. This advance information allows governments to make informed decisions whether to import waste or not.13

13 For more clarity of the "developing norm" of prior informed notification and consent in international law, see
Normally this notification procedure occurs between governments—the exporting party notifies its home government, which in turn notifies the government of the country to which the waste is going. The government of the importing country gets some time to respond to notification, and if no objection, tacit approval may be implied. The notification requirements are given the name "prior informed notification," "prior informed choice," or prior informed consent," depending upon the level of decision-making power granted the importing country.\textsuperscript{14} There is a great deal of debate though about effectiveness,\textsuperscript{15} notification systems are the basis of international agreements on controlling the transboundary movements of hazardous waste, whether at the treaty, regional or global level.\textsuperscript{16} Analysts of the waste trade still contend that the prior notification requirements


\textsuperscript{16}Article 6 of the Basel Convention outlines provisions for a system of prior informed consent.
are not sufficient to correct market failure in transmitting information among trading parties. Eherenfeld and Hilz, however, suggest the creation of a centralized tracking system through which notifications would be sent through an international body for checking rather than being routed on a government-to-government basis.\(^7\) There is no doubt that international cooperation would be needed to effect such a system which Eherenfeld and Hilz have not proffered any idea on how it might be done.

**International Liability**

Liberals think one of the solutions to the problems of the hazardous and toxic wastes trade can be by the establishment of legal liability rules. This is similar to what obtains in many industrialized countries where they have in place a liability system created by domestic legislation. For example, under this system waste generators are held responsible for all environmental abuses, damages caused by improper management of their waste regardless of when it was done or who did it.\(^8\) For example, in the United States, anybody can bring a civil suit against a waste company or generator where damaged is done to the person by that waste—even where such incidence occurred

\(^{17}\)Hilz and Ehronfold, 57.

\(^{18}\)Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 42 US Code, sec. 9601.9675 (c)[1988].
years after the waste was generated. The idea here is that strict liability encourages waste generators to supervise the disposal of their wastes.

For situations beyond the national frontiers, Eherenfeld and Hilz argue that the system should emphasize "the policy that the cost of [hazardous waste management] belongs to the waste generator and not the communities that live near the disposal sites." Many liberal analysts have advanced different approaches to the idea of international liability but, effective enforcement of the liability law is another debatable issue.

An International Emergency Fund

Accidents occur in the transportation of hazardous waste across borders and this could cause "market failure." There have been cases of huge oil spills resulting from tanker accidents. For example, an incident off the coast of Japan brings the issue to focus.

Given this type of unexpected accident, Cusack has suggested the creation of an international fund that would provide contingency financial support. Provisions in the

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19Ibid.

20Hilz and Ehrenfeld, 57.

21A chemical tanker loaded with 25,700 tons of toxic chemicals exploded, killing the crew. According to one news report, rescue ships were unable to approach the burning vessel for several hours because of the intensity of the fire, Boston Globe (March 15, 1989), 12.
1989 Basel Convention also initiates the creation of such a fund that might be used to offset tank leakage or otherwise dangerous containers while arbitration and litigation processes determine who should have financial responsibility for such development. Eherenfeld and Hilz both propose mandatory insurance requirements for transboundary wastes shipments.

Waste Reduction and Minimization

Of all the alternative liberal solutions to the problems of waste trade, waste reduction and minimization appears plausible. This is so because if less waste were generated, less waste would move across boundaries and risk of global pollution would be minimized. The problem that mitigates against the lofty idea of waste reduction and minimization is rightly pointed out by Worrell who observes that "exporting waste, especially to developing nations, provides a less costly alternative, thereby undermining efforts to implement reduction techniques." Worrell also contends that government intervention in the form of tax

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22Basel Convention, Article 14.

23Hilz and Ehrenfeld, 57.

relief for the companies sinks a large portion of their research and development budgets into pollution prevention.\textsuperscript{25}

**Redefining Sovereignty**

Many liberal waste trade analysts think that a possible solution to the international trade in hazardous waste lies in changing the present institutions and power configurations of the international system. In line with this argument, Eherenfeld and Hilz contend that national sovereign rights regarding the environment should be limited in favor of more extended rights resting in an international agency and in the long run, a broad international agreement is the dominant option.\textsuperscript{26}

This idea sounds more theoretical than practical as it will be almost impossible to create and implement a supra-national waste management authority.

**The Realist Perspective and the Waste Trade in West Africa**

The realists' perspective assumes that states or nation-states are the principal actors in the international system and conceives of them as rational, unitary and egoistic. More appropriately in this study, state is

\textsuperscript{25}This is the thrust the pollution prevention program implemented by the North Carolina State University at the Global Pollution Prevention '91 International Conference and Exhibition, April 3-5, 1991 (Washington, D.C.).

\textsuperscript{26}Hilz and Ehrenfeld, 55.
defined as the central decision-makers of a government.27 Realists contend that states (or the decision makers or bourgeoisie that represent them) weigh the risks and benefits before taking any course of action or determining ways to maximize rewards. It is also worth noting that many times the rationality of states can be imperfect, considering that there could be constraints in the accessibility of complete information, structural impediments in bureaucracies and other decision-makers to understand the entire range of possible risks or benefits.28

The West African region has even an added problem of being plagued with political systems that are authoritarian, unstable, conflictual and corrupt. In many states in West Africa, environmental awareness is still lacking among most policy makers. There are hardly any laws regulating waste disposal, and very little action in place to follow up with environmental issues. Environmental concerns have only recently begun and still there is gross absence of technology to tackle environmental issues in general and in particular disposal of toxic and hazardous wastes. The


point here is that in West Africa, countries behave contrary to the assumption of the realist theory of states being rational and able to weigh risks or benefits. As a result, most states are unable to make the right determination and in this way often become vulnerable and open for exploitation. A case study (see Chapter VI) of Guinea-Bissau involvement with international trade in wastes, reveals that the country lacked the expertise of determining the risks in wastes disposal as an importer, and therefore was compelled to depend on the expertise of the exporters to make its decisions.

Also, Guinea-Bissau reluctantly called off the wastes trade deal with Western exporters only as a result of external pressures from the Organization of African Unity (OAU), concerned African leaders and other world organizations. The OAU's resolutions and the Economic Community of West African States' (ECOWAS) regional pressures seem to be effective coercive measures in preventing African states from engaging in the hazardous and toxic wastes trade. The question for further research in the African situation is, how do realists see the intervention of continental and regional organizations in states' affairs like waste trade?

Some analysts of the international trade in toxic and hazardous wastes see potential economic benefits for developing countries. According to the analysts, by
allowing waste import, a state may reap a variety of economic rewards, including needed foreign exchange to pay off the balance of debt problems or correct the balance of trade.\textsuperscript{29} Like the liberals contend, states may realize other long-term benefits by eventually developing the waste import into a waste disposal industry that creates new jobs and fosters economic growth.\textsuperscript{30} For example, if the importing state has access to sophisticated waste management technology, it might be able to take advantage of economies of scale and create a comparative advantage in waste disposal services and at the same time be protecting its environment, analysts conclude.

However, case studies of some of the countries in West Africa, like Nigeria, Guinea and Sierra Leone reveal more of government rejections of the toxic and hazardous wastes trade (see Fig. 4). Nigerian government in a further action to ban waste import in the West African region, proposed the creation of a regional "Dumpwatch." Nigeria in this proposal worked and cooperated with other West African states to help each other in policing their borders and

\footnotesize{\textsuperscript{29}Hilz and Ehrenfeld, 31.}

\footnotesize{\textsuperscript{30}Some proposals to export wastes to developing countries do often add plans for this kind of economic benefit. Guinea-Bissau's deal to import wastes from the Western states included a plan for a disposal industry.
turning back illegal waste shipment. This ingenious attempt by Nigeria to give some teeth to an illegal waste import ban might be opposed by realists, possibly, arguing that a ban especially on a regional agreement would not be any more enforceable than the liberal global solutions.

The realists approach of the political economy assumes too, that the state is the proper unit of analysis and in a world of zero-sum game, self-interested states would rather win than lose. The West African states have been losers in the waste trade not because they are not self-interested, but, for the lack of what Professor Strange calls structural power or to be more precise, bargain power. In all cases of waste trade studied in West Africa, the foreign waste brokers always dictated the prices for disposal and these prices were token compared to what could have been otherwise the cost in the exporting countries, yet, these money offers were tempting if not always acceptable to government officials. The disparaging state of the West African countries weakens their bargaining power in waste trade deals. The winners always are the aggressive waste brokers or agents who take advantage of the weak bargaining power of


32Balaam and Veseth, 13. Professor Strange defines structural power as "the power to shape and determine the "structures" of the global political economy. She lists the four global structures as: "security, production, finance, and knowledge."
poor countries. Antony T. K. Gadzey writing on the condition of states in the Sub-Saharan Africa notes that:

After three decades of self-rule, most countries in the region are still characterized by low production and consumption, repeated food crisis, large external debts, and a basic inability to use needed foreign technology. Economic stagnation has created so much political disarray that many governments in the region no longer meet the imperial definition of a state based on its ability to exercise control by defining, implementing, and enforcing laws policies, and regulations.  

Corrupt and inefficient administrations and increasingly repressive and extractive tendencies have eroded the legitimacy of many African governments.

The economically and politically weak picture according to Gadzey of the Sub-Saharan region which includes West Africa countries, also affects the rationality assumption of these states as the proper unit of analysis especially with added weaknesses like: corruption, inefficiency, and lack of control.

The realist political economy also addresses how changes in the distribution of international power affect the form and type of international economy like determining cross-border waste movement. In a structural realist

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hypothesis construct on waste movement based on the unequal distribution of power in the international political system: the direction of cross-borders waste movements would depend upon political relationships among states. This hypothesis would likely conclude that waste movement would be from the most powerful to the weakest countries--like the toxic and hazardous wastes movement from the powerful industrial nations to the poor and weak states of West Africa, a one-way traffic. Some analysts may differ with this hypothesis giving isolated examples of waste movement from a relatively weak country to a more powerful state (like the case of Romania's hazardous waste going to France).  

But waste movements among powerful states or from relatively weak countries to more powerful states are more often for commercial recycling purposes using high-level technology and are legal and safe. This type of waste may be classified as "useful waste." The waste movement from Western nations to West Africa is usually traded for illegal disposal or dumping and may be classified as "unwanted waste." Other factors to be considered are: the level of environmental awareness, knowledge or technology to handle waste disposal safely in the recipient country. Taking all factors together, unwanted waste would always follow the

35See Greenpeace, 315. Greenpeace reports that France is the largest importer of hazardous waste in the world. France imported hazardous waste from West Germany, Belgium, Netherlands, Switzerland, Spain, Italy, Romania, Ireland and Luxembourg.
realists' hypothesis which fairly agrees with the hypothesis adopted in this study that "unwanted waste" follow the path of the poor or the corrupt and the uninformed.

The Radical/Marxist Perspective and the Waste Trade in West Africa

The radicals/marxists begin with the assumption that the present structure of the international political economy serves more the interest of the rich countries than those of the poor countries. As a consequence, the radicals/marxists theorize that disproportionate burden of the rich industrial countries' waste disposal problems will be lumped on the poor countries to bear. Rich industrial countries include private firms, large corporations and governments that support the deadly trade in wastes. The radical/marxist analysis of international waste trade is that it is an unbalanced trade between the rich countries and the poor developing countries. The contention is that the rich countries, as a result of their unbridled pursuit for wealth and power, are flooded with hazardous wastes, the by-product of decades of squandering natural resources. Given the structure of the international economic and political system, the rich, powerful interests in the industrialized nations exploit poor, weak, developing nations by dumping on

them their toxic and hazardous wastes. Because poor nations are desperate for economic growth, and because they depend upon the handouts of the rich and powerful nations, they have been made "sanctuaries" for hazards and garbage unwanted in the industrialized nations. Cusack supports this notion of industrialized states of the North dumping hazardous wastes on the poor states of the South. He states:

"Fundamentally,...the issue of exportation of toxic waste to the Third World is thoroughly grounded in the existing global economic structure. Until this global inequality is resolved, wealth will continue to permit industrialized nations to proclaim, "Not In My Backyard." 37"

There is no doubt that global economic structure is unequal. Unequal because the developed countries dictate the terms to the Third World or the developing countries because they are richer.

Diven also believes that the hazardous waste trade is an unsurpassing result of the structure of the international system when he states thus:

"For those who understand the historical context of the Third World poverty, toxic dumping is just one more link in the chain of exploitation that has

impoverished people throughout Africa and the Caribbean.\textsuperscript{38}

Radical/Marxists see industrialized states as accomplices in the hazardous waste trade. For example, Wasserman writes that: 
"...national attitudes reflect those of industry, so that legislation is based on beggar-my-neighbor principles or let's-keep-our-country clean and never mind about the rest of the World."\textsuperscript{39}

Greenpeace, the World's largest and most influential environmental organization supports the radical perspective. Greenpeace writes that:

In the World's most heavily industrialized countries, where landfills and incinerators have polluted the environment beyond public tolerance, chemical firms have faced increasingly high fees for dumping their wastes in heavily-regulated disposal sites. These high disposal rates have inspired many chemical manufacturers and waste brokers to look beyond North America and Western Europe for dump sites. Heavily industrialized countries have accommodated these firms, allowing them to export their wastes to the World's cheapest dumping grounds. And in the global waste marketplace, the most attractive targets for waste dumpers are the countries that are further removed from the economic benefits of industrialization.\textsuperscript{40}

In support of Greenpeace contention, Marx made the same explanation that the international capitalist system "has

\textsuperscript{38}Diven, "Our Newest Hazardous Export" (Washington, DC: Oxfam America, September 1988), quoted in Wynne, 121.


\textsuperscript{40}Greenpeace, 1990. 5.
made barbarian and semi-barbarian countries dependent on
civilized ones, nations of peasants on nations of
bourgeoisie, the East on the West;"41 therefore, the
radicals.marxists predict that the rich countries of the
North will depend on the poor countries of the South for
dumping their wastes.

The radical.marxist prescription for the problems
involved with toxic and hazardous wastes trade is a total
ban. One of the foremost advocates of worldwide ban on the
waste trade has been Greenpeace which contends that:

The debate over how best to prevent the
environmental, political, social, and moral ills
presented by the international waste trade has
resulted in two types of legal instruments-
control mechanisms and bans. The former is
generally supported by major industrialized powers
and consists of a notification and consent regimen
(sic) known commonly as "prior informed consent"
or (pic)(sic).... The latter is more generally
supported by less-industrialized countries and
calls for outright prohibition of hazardous waste
trade.... Greenpeace firmly believes that
instruments that rely on PIC cannot possibly
combat waste trade or mitigate its political,
ecological, moral and social ills.

PIC cannot be a just contract in a world of such
disproportional economic and political planes.
The approval of a single government official
anywhere cannot reflect the desires and fates of
those people living in proximity to a waste import
dump site. PIC cannot pretend to address the
disincentive for waste minimization and for the
implementation of clean production methodology
(sic) when industrial interests can cheaply export

41Karl Marx and Friedrich Engels, "Manifesto of the
Communist Party," in Robert C. Tucker (ed.), The Marx and
Engels Reader, 2nd ed. (New York: W.W. Norton & Co., 1978),
477.
their waste problems rather than take responsibility for them at home.

Thus rather than accepting "control systems" based on some form of 'prior informed consent,' Greenpeace and most of the less industrialized world have insisted on complete import and export bans as the only means to adequately remedy the problems associated with the international trade in hazardous wastes.42

The above passage is a critique of the liberal supported legal instrument of control mechanisms that, according to the radicals/marxists, is an unjust contract for the less industrialized countries. Radicals/marxists oppose the liberal approach of a cooperative or negotiated effort by the World's states for solutions, because of the lopsided structure of the international system. The argument is that such negotiated solution will amount to economic blackmail. For example, Cusack writes that the Basel Convention

reflects most industrialized nations' strategy to checkmate developing nations into accepting waste exports...[Thus] Basel Convention has legitimized the international toxic waste game and proclaimed industrial nations the winners.43

Cusack contends, further that liberal economics and environmental protection are irreconcilable: "Control of the transboundary movement of hazardous waste...increasingly appears to be an oxymoron."44

42Greenpeace, 8.
43Cusack, 420.
44Ibid., 423.
Many experts like Cusack and some liberals support the ban on international waste trade. According to Greenpeace's account, seventy-eight countries, mostly less developed countries, have banned the import of hazardous wastes. In principle, the EEC in 1989 also agreed to ban all waste exports to sixty-eight developing countries of Africa, the Caribbean, and the Pacific ACP countries under the terms of the Lome IV Convention.

Dependency Perspective and the Waste Trade in West Africa

On the issue of Africa being exploited as a dumping ground, Rodney contends:

In their vantage position as the conqueror, the dominant powers--militarily, economically and politically--were able to exploit Africa's natural resources...[and] in addition Africa served as a dumping ground for their cheap and surplus products. The end product of all these events was that Africa became a dependent economy, serving European interests and thus externally controlled and regulated by the metropolitan countries.

The hazardous waste trade in West Africa is a development that emanates from dependency--a condition that makes West African states vulnerable to all forms of exploitation.

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45Greenpeace, "Countries Banning Waste Imports - November 1990."


From the perspective of the West African region, historical situations of dependency have conditioned contemporary underdevelopment. According to Offiong, dependency relations in Africa have also shaped the social structure of underdevelopment and he states:

Thus a crucial problem of underdevelopment is the fact that in this process of dependency there has arisen a coincidence of interest between the local or internal bourgeois and the external capitalist oligarchies. The internal compradors greatly benefit from this dependency situation.... So after independence these national bourgeois have strengthened their relationship with their international allies. Their investments are geared towards export and activities complementary to foreign industrial capital. They have connived with foreign interest to rob their countries of their much needed foreign exchange and have been involved in all sorts of unpatriotic activities that fail to aid economic development.  

It is the same internal bourgeois who are easily tempted by cash in some West African countries to import or accept hazardous and toxic wastes even at the expense of the threat to human lives and the environment.

African countries have unequal trade relations with the industrial countries as Rodney rightly writes:

Africa was forced into the international market system at a competitive disadvantage. Since Africa did not, nor does it now, possess the kind of advanced technology known in the West and North America, it was virtually impossible for Africans to compete with the Europeans and the result was a one-way trade.  

48Ibid., 75.

49Walter Rodney, "How Europe Underdeveloped Africa," in Ibid., 80.
Dependency approach also addresses the role of the African leaders and bureaucrats or the national bourgeoisie. International trade in hazardous and toxic wastes has been very much aided and abetted by some African leaders and bureaucrats. Offiong exposes the role of the African bourgeois when he writes that "the African bourgeois fails to possess something crucial to a bourgeois, and that is 'Money'...If he is given enough time and opportunity, this bourgeois will embezzle enough money to stiffen his domination." According to Frantz Fanon, the African bourgeoisie is a phantom bourgeoisie, so greedy that he is willing and ready to accept what his international counterpart can give. Driven by such greed and corruption, the African bourgeoisie has been very much tempted by the extra cash from waste trade schemes. The London New Scientist made this assertion of the African bourgeoisie:

...observers in Africa said that, given Africa's weak bureaucracies, compounded by lucrative bribes by the industry's middlemen to corrupt officials, stopping illegal imports of toxic waste will be a difficult task in the continent. Many African are angry that their own people put greed before the well being of the environment. Nation, Kenya's leading daily newspaper,...described such people as "the epitome of greed," adding that they had become pachyderms of the most ferocious kind.

There is no doubt that African bureaucrats or bourgeoisie have played a part in perpetuating the hazardous

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50 Ibid., 158
51 New Scientist, June 23, 1988, p. 31.
and toxic waste trade in West Africa. A notorious example is the role played by Benin officials. For example, in a press interview, President Mathieu Kerekou openly explained his country's plan to import toxic waste denying rumors that it was nuclear residue.\textsuperscript{52} Benin's president here appears not to take seriously the warnings by OAU members and other African leaders to stop toxic waste importation. His role in the waste trade typifies the interest some African bourgeoisie have in any trade deal with foreign counterparts. Trade deals of the sort gives the African bourgeois elite the opportunity to make money for himself at the expense of the masses.

In summary, three problems are exemplified by the dependency approach—poverty, underdevelopment and historical exploitation. Poverty can be justly described in terms of inadequate shelter, structural malnutrition, poor health care, and more fundamentally, the lack of a sociopolitical consensus capable of taking care of these problems. It is an economic condition and it could be natural. But, according to Richard W. Lombardi, underdevelopment represents, as it were, a metaphysical loss of footing. Underdevelopment occurs when economic and material structures bypass intellectual and spiritual values. It is a loss of identity to the Third World in the

\textsuperscript{52}\textit{Africa Report}, 1988, p. 47.
name of free trade. Underdevelopment is introduced and represents a deliberate mental blackout. It is primarily what makes West African countries gullible and open to all forms of exploitative trade.

The dependency school contends that dependence is a historical product that manifests in debts and underdevelopment. Most, if not all West African countries, are dependent on external financing. This resort to external financing and the accompanying rise in external debt obligations together worsen the balance-of-payments difficulties of this undeveloped region of West Africa. These countries of West Africa are maintained in a relation of dependency vis-a-vis their Western creditors, and this type of maintenance perpetuates underdevelopment. Many of the countries in West Africa are faced with serious external debt problems and to some there has been the temptation to import Toxic and hazardous wastes to earn foreign exchange. (See Tables 1 and 2)

The liberal and the radical/marxist perspectives have some common grounds. Liberals see markets as the most efficient provider of value and welfare. On the issue of environment, markets are assumed to be unable to provide non-economic values such as protection of human health, clean air, pure water, and unpolluted earth. Where the

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PROFILE OF ECONOMIC DEVELOPMENT IN WEST AFRICA

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<th>Total GNP ($billion) 1989</th>
<th>Real GDP percap (ppp8) 1989</th>
<th>GNP percap Total 1989</th>
<th>Aid Flow USS m 1990</th>
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Source: World Bank Social Indicators of Dev., 1987-.
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**Table 2**

**TOTAL EXTERNAL DEBT**

Low-income economies
China and India
Other low-income

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**Table 2**

**TOTAL EXTERNAL DEBT**

Low-income economies
China and India
Other low-income
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market fails to provide these values, there should be some intervention to make the necessary corrections. Liberals however, disagree about the degree of intervention needed to correct the market failure, but, agree that government (or supranational institution) intervention to rectify the price mechanism in some way is the only way to provide environmental value.

Whereas the radical/marxists' fundamental concern is social equality and on this regard, they believe that the political system is unjust. The radical/marxists therefore assert that because of the unequal distribution of power and wealth in the international system, the poor is very likely to inherit industrial wastes from the wealthy. The radical/marxists condemn the trade in hazardous and toxic wastes as morally repugnant. They proffer the same solution with the liberals: the free market in hazardous and toxic wastes should be altered to stop the exploitation of the poor by the wealthy and powerful. Radical/marxists believe generally that high levels of intervention in the international trade in waste is necessary: hazardous and toxic wastes trade should be banned.

Another common ground between the liberal and the radical/marxist analysis of the international trade in hazardous and toxic wastes lies in their argument that economics is one powerful variable that determines where the waste goes. Liberals in their emphasis on price mechanism,
make the argument that disposal prices are obviously lower in developing countries than developed countries. The logic here being that waste will tend to move to where disposal prices are lowest. Radical/marxists in their economic argument on the waste trade, contend that developing countries are assumed would be unable to resist the will of the industrialized nations given their state of economic distress with attendant political instability. The logic being that developing states will become "the dumping ground" for hazardous and toxic wastes.
CHAPTER III
GUINEA - A CASE STUDY

Introduction

The West African country of Guinea is a former French colony with a population of about 7 million. It became an independent republic on October 2, 1958, with a one-party government. Since the coup of April 1984, Guinea like most West African countries, has been ruled by military government. Environmental legislation or laws are usually non-existent under military rule. Under military rule, typical of a authoritarian rule, environmental consciousness hardly exist as the military tend not to tolerate grassroot environmental movements that militate for environmental protection and awareness.

Like most countries in West Africa, the majority of the population is dependent upon subsistence agriculture. The country's foreign exchange is derived largely from mining. Guinea has valuable minerals like iron ore, gold, diamonds, uranium and oil and its the world's foremost exporter of bauxite and the second largest producer of bauxite ore.¹ Guinea, according to the 1992 World Bank Report, had an

estimated per capita income of $430 in 1989 and $510 for 1992, while the average for all of the sub-Saharan Africa (excluding South Africa) was $390. By these estimated GNP figures, Guinea appears to be doing comparatively better than most countries of the sub-region. However, Guinea's total debt as percentage of GNP was 85 percent in 1989.

Toxic Waste Dumping

The case of toxic dumping was reported in June 1988 when 15,000 tons of toxic industrial ash from Philadelphia, United States, was imported by a Norwegian company in Guinea and dumped in a quarry on the island of Kassa off the mainland capital of Conakary. The importer from Guinea was not the government, but a Norwegian company, A. S. Bulkhandling Inc., based in Guinea. The 15,000 tons of industrial ash was shipped and labeled "raw material for bricks" to confuse port officials in Guinea. It was not until the toxic ash had killed a large part of the island vegetation, as the vegetation was turning brown and the fetid fumes were making the air unbreathable, that this development came to the attention of the government. A government investigation was undertaken and it was discovered that 15,000 tons of toxic ash was dumped in an abandoned mine in the island without its knowledge after

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having been rejected by Panama and Haiti. The dangerous waste from Philadelphia was already poisoning flora and fauna near the capital of Guinea, Conakry. The waste, mischievously described as "brick or construction materials," was sold to a Guinean company for 63,500 British pounds early in the year. This incidence provoked the Guinea government under President Lansana Conte to react swiftly by arresting the Norwegian Consul-General, Sigmund Stromme for complicity. Upon being arrested, the Norwegian Consul-General confessed that his company, of which he was the chairman, forged documents to illegally import and dump the 15,000 tons of toxic ash. This Norwegian company waste shipment portrays yet another case of waste importation acted out in collaboration with a foreign company in Guinea to misinform the Guinean authorities.

The Norwegian company was paid the equivalent of US $40 per ton. This is compared to an estimated US $1,000 per ton that could have been paid in the United States to dispose of the toxic ash in compliance with Government regulation. Under pressure on June 13, 1988, by the Guinean government, Norway agreed to remove the toxic ash and the event led to the arrest of five Guineans while the sixth person fled. The Guinea government ended up charging Norway's Honorary

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Consul Sigmund Stromme for forging documents to bring in the shipment. According to Greenpeace account, officials in Guinea were also approached in 1988 to accept another consignment of hazardous waste that was rejected. (See Fig. 3).

**Analysis**

Several developments about this case support the hypothesis advanced in chapter one of this study. This case supports the hypothesis that toxic and hazardous waste trade follow the path of the poor, the corrupt or the uninformed and it is exploitative. It is exploitative for three main reasons: a) The token amount paid for the exchange was not comparable to the damage done to Guinea vegetation or environment. b) The dishonest practice of mislabeling was a deliberate spirit of taking advantage of the uninformed government officials and people of Guinea. This corrupt trade practice was very likely carried out with the knowledge and possible cooperation of a senior protocol officer of a foreign embassy residing in Guinea. This is proof of an exploitative international relationship explained by dependency. c) This type of trade practice was devoid of the norm - a trade decision based on proper information.
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<td>iterated</td>
</tr>
<tr>
<td>Tunisia</td>
<td>SOP</td>
<td>PAG</td>
<td>1987</td>
<td>unidentified</td>
<td>iterated</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Useless Waste Mixture</td>
<td>USA</td>
<td>1984</td>
<td>shipped, disposed/dumped (mislab)</td>
<td>one-time</td>
</tr>
</tbody>
</table>

* Possible disposed/dumped case, but reported as unclear.

Fig. 3. Greenpeace Waste Trade Data

Source: Greenpeace, 1990.
Was the dumping trade based on any informed decisions?

The dumping in Guinea was not based on an informed decision. The Guinea government was not aware of this toxic waste import into the country until it was abandoned in an island where it ruined a large part of the vegetation by turning it brown and giving off fetid fumes that polluted the air. The exporters or the importer deliberately mislabeled the waste as "construction material." The importation by a Guinea Norwegian company was not based on proper information. The chairman of this Norwegian company, the Norwegian Consul-General, confessed under arrest that his company forged documents to illegally import and dump the 15,000 tons of toxic ash.

Was the payment for the dumping fair?

The Norwegian company was paid the equivalent of US $40 per ton as against an estimated cost of US $1,000 per ton that could have been paid in the United States to dispose of the toxic ash in compliance with government regulations.

Was the country a victim of nefarious waste trade brokers?

In this case, the Norwegian company in Guinea acted as the waste trade brokers. The confession by the chairman of the Norwegian company that his company forged documents to illegally import 15,000 tons of toxic ash explains the typical action of waste brokers. In the case of Guinea, the country was made the victim by the dishonest activity of the
Norwegian company. These vicious waste trade brokers see poor and uninformed African countries as territories they can pray on and make fortunes out of them.

**Conclusion**

This case wrongly portrays Guinea as one of the West African countries that imported toxic ash waste. The Guinea government has not had cause, even on economic grounds, to import waste for money. In rejecting an earlier attempt by Western waste exporters to dump toxic waste on the country, the Guinea government seems to demonstrate no interest in hazardous and/or toxic wastes trade. The importing agent was not Guinea government, but a foreign company residing in Guinea. The import was done based on informed decision by a fraudulent company based in Guinea. It was an unholy arrangement between the foreign waste trade brokers and local informed company. This case falls in line with organized crime by companies. The fee paid for the disposal might have been attractive to the local company, but comparatively with what could have been paid to dispose in the United States it was a token cash. This case does not fully support the hypothesis that toxic and hazardous dumping follow the path of the poor and the uninformed and it is exploitative. It was a exploitative, yes, but the importation was based on informed decision by the company in Guinea.
The consequences of this particular illegal importation/dumping of toxic ash include strain on the Guinea and Norway relationship, ruin to the Guinea environment, and possible negative effects to the population's health as a result of air pollution. The next chapter will examine the notorious hazardous and toxic wastes dumping case in Nigeria that resulted in more casualties.
CHAPTER IV
NIGERIA - A CASE STUDY

Introduction

Nigeria is a former British colony. With a population of about 101.9 million, Nigeria is the most populous black country. In spite of its human and abundant natural resources, Nigeria has not been performing well economically and politically since the mid 1980s. According to the 1992 World Bank Report, the country's GNP per capita was about $990 between 1980-85 and since then slumped to $320 between 1987-92, falling short of the low average of $390 for the sub-region. Nigeria's total debt as percentage of GNP was 97 percent in 1989. The majority of the population is dependent upon subsistence agriculture. The country's foreign exchange is derived mainly from oil production. Oil production provides about 98 percent of the total revenue. Nigeria also possesses substantial deposits of natural gas, coal, tin, iron ore and uranium.¹

Under civilian president Shehu Shagari in 1982, an ad hoc inter-ministerial board or commission, imagined to function as Federal Environmental Agency was proposed. This

agency would have a chairman and fourteen "distinguished scientists" to be appointed by the president. The board would also include representatives from the ministries of health, housing and environment, and science and technology, and three representing interest groups.² The Shagari government was toppled by the military government. Writing on environmental pollution and legislation in Nigeria, in 1985, Hutchful had this to say:

After many years of widespread exploration and production activities, Nigeria still does not possess a comprehensive or coherent set of anti-pollution legislation. Existing legislation is scattered through a number of statutes limited to specific types of pollution and environment and lacking the backing of detailed regulations. The tendency is to leave considerable discretionary power in the hands of enforcement agencies and corresponding opportunity for [pollutants] to evade regulations.³

It might be safe to say that environmental consciousness barely exists in the country as there are no legislation or laws on environmental protection. Critics believe that the military rule that has been in power for about 28 years of the 36 years of Nigeria's independent life, and which has proven repeatedly unable to redeem the country from a lifestyle of corruption and indiscipline, has very much prevented true democracy from

²J. N. Obinegbo, "Nigeria Plans Federal Eco-Protection Agency", World Environment Report 8, no. 5 (March 15, 1982).

taking proper roots in the country. The intervention of the military in the political process, albeit redemptive in nature, has, in the author's opinion, exacerbated more negative conception of Nigeria by the military's continued stay in power with their seeming lack of moral courage to fight corruption, indiscipline and high crimes that plague the Nigerian society. The military, unlike the civilian government, tends not to tolerate any formation of grassroots environmental movements that advocate environmental protection. Rather, the military appears to perceive environmental awareness by grassroots movements as political insurrection.

The Dumping of Hazardous and Toxic Wastes

In Nigeria, 4,000 metric tons of chemical (claimed radioactive) waste from Italy was illegally dumped in the port of Koko in September 1987. Koko village is some 200 meters away from the port. The waste, including deadly dioxin and poly-chlorobiphenyl (PCB), a compound linked to cancer and other diseases, was shipped in drums and containers in several consignments from Italy to Nigeria and arrived in five shipments from Pisa between August 1987 and May 1988. The shipments were smuggled into Nigeria by an Italian director, Bianfranco Raffaelli, of the Iruekpen

Construction Company using forged Italian cargo clearance papers and the Nigerian import permits. Koko port officials were reported bribed to turn a blind eye. This import deal was arranged by an Italian and a Nigerian businessman and the Nigerian was paid a token 500 naira (worth about $100 in 1988) a month to store the waste. To Sunday Nana, a Nigerian impoverished farmer who was paid this token amount to store 8,000 drums of chemical in his small plot of land near the river port of Koko, it was an irresistible deal. Mr. Sunday Nana and his family lived in a house less than five meters from the nearest stack of drums (Fig. 4). They eat cassava grown inside the fence. And from their porch, one could hear the drums "popping" in the heat of the sun and the smell of acrid vapors all over. When Mr. Sunday Nana was questioned by a news reporter, he said he had no knowledge of the contents of the drums. He said that for five years he had been renting portions of his land to different importers to store their goods. One of the importers he identified was Mr. Bianfranco Rafaelli, an Italian businessman. Mr. Raffaelli, a supposedly a Nigerian resident for many years, had been importing the waste in


6Newsweek, November 1988, p. 56.
as part of Koko, Nigeria.

FIG. 4. Toxic waste in leaking drums from Italy dumped at port of Koko, Nigeria.
collaboration with Iruekpen Construction Company, a Nigerian firm by forging document and permits.7

Nigerian authorities first learned of the dumping from Press clippings published in the Nigerian newspaper by a Nigerian student in Italy.8 Investigation by the Nigerian authorities revealed that some of the wastes had arrived via neighboring Benin. The dumping site and the drums were totally unsuitable for storing industrial toxins. It was reported that the toxins from the leaking drums had contaminated the soil, and ground water supplies and the nearby river. Nana, the Nigerian who stored the drums of toxins died two years latter and nineteen villagers died from eating rice contaminated by the toxins. The Nigerian authorities unfortunately had neither the experience on toxic waste management expertise nor technical facilities or the means of handling the toxic materials.9 The alarm of this incidence claiming many lives, compelled the military government of Nigeria to respond by jailing more than 50 people and ordered the Italian government to pay for the return of the chemicals. Cleaning up the dump claimed lives: three workers repackaging the waste suffered severe

7Environmental Action, November/December 1988, p. 27.

8Ibid.

9Center for Investigation Reporting and Bill Moyers, Global Dumping Ground, (Washington: Seven Lock Press, 1990), l.
chemical burns, others vomited blood, and one man was partially paralyzed. The dump site was finally sealed off.

The Nigerian government did request for environmental experts from Britain and the U.S. Environmental Protection Agency to assist in investigating the site. Scientists did determine that a large number of the drums contained volatile solvents and highly toxic and deadly dioxin and poly-chlorobiphenyl (PCBs). The toxic was sent back to Italy and the cost of unloading the ship was about $11 million. The Nigerian government was furious and labeled the episode, "toxic terrorism" and threatened to execute anyone, native or foreign convicted of importing toxic substances in future.\textsuperscript{10} In another report by \textit{Third World Network}, 100,000 tones of waste (including PCB, exhausted earth, asbestos fiber and assorted pharmaceutical and industrial residues) were exported to Nigeria in 1989.\textsuperscript{11} Nigeria was also instrumental to the creation of a regional "Dumpwatch" to police the West African borders and turn back illegal waste shipments.\textsuperscript{12} The "Dumpwatch" concept was later incorporated into the Organization of African Unity (OAU) during the Bamako Convention in 1990.


\textsuperscript{11}\textit{Third World Network}, August 1989, p. 8.

Analysis

This case does not appear to fully support the hypothesis advanced in chapter one; that toxic and hazardous waste dumping trade follow the path of the poor, the corrupt or the uninformed and it is exploitative. The importing agent was not the Nigerian government, but an Italian company in Nigeria. This agent in Nigeria was fully informed of trade in toxic waste. This type of business falls under organized crimes by companies and foreign agents. It is only supportive of the hypothesis in that it is exploitative. Of particular interest here, is the pattern of organized crimes by foreign agents using Nigerian companies. Again, this type of relationship was also observed in the case of Guinea, where a foreign established company was engaged in forging documents and bribing its way to import hazardous and toxic wastes into the country. This Italian company in Nigeria involved in the importation of hazardous and toxic wastes into the country was able to carry out the corruption of Nigerian port authorities and the illegal disposal of the hazardous and toxic wastes using uninformed and informed Nigerians. Sunday Nana happened to be one of the uninformed Nigerians that considered a token storage fee of $100 a month for the toxic drums a deal and ended up losing his life, while the Italian Company in Nigeria and their foreign waste brokers were the profiteers in the waste disposal schemes trade. This case demonstrates
the unholy and corrupt relations that accompany the hazardous and toxic wastes dumping trade. The Nigerian case had horrifying consequences. Apart from the harm to the environment, nineteen villagers were reported dead, including Sunday Nana. Some people were hospitalized and one man was partially paralyzed. If this toxic waste trade as reported continues unnoticed for five years, it will expose the level of corruption in Nigeria that has fast become a culture.

Was the dumping trade based on any informed decisions?

Of course, the Italian company in Nigeria and their agents were fully informed. It was possible there was an exchange of information between the importers and the exporters, granted that it was an illegal deal. It was not a case of official importation by the Nigerian government, but a case of Western waste export agents or brokers working with an Italian company in Nigeria to dump their hazardous and toxic wastes through uninformed local Nigerians. Yes, the dumping trade was based on informed decision. As an illegal deal, the Italian Company in Nigeria forged documents, bribed and mislabeled the drums to beat the scrutiny of the Nigerian authorities at the port of entry.

Was the payment for this dumping fair?

The poor Nigerian farmer was paid a token amount of $100 a month. And as the story had it, the farmer and many
villagers lost their lives from contamination with the deadly chemicals. The payment was not fair and could not be compared with what it could have cost to dispose the chemicals in Italy.

Was the country a victim of nefarious waste trade brokers?

This illegal trade was done without the normal information process between the trading countries; rather it was a trade transaction between Italian waste trade brokers and an Italian company in Nigerian. The Nigerian government authorities were unable to detect the illegal importation because of corruption by Nigerian officials and middlemen. Nigeria therefore became the victim of the illegal dumping.

**Conclusion**

There is no doubt that this chemical waste dumping scheme in Koko, Nigeria, is a classic illustration of a waste dumping trade. It fairly supports the stated hypothesis in chapter I--that toxic and hazardous waste dumping follows the path of the poor, the uninformed or the corrupt, and is exploitative. Clearly, this was not an importation by the Nigerian government to raise revenue, as Nigeria could do better without the revenue from deadly waste. It was an illegal dumping based on informed decisions and corruption. The issue of mislabeling which is the dumpers' common way of doing business illustrates a typical mean spirited ploy agents from exporting countries
resort to in order to penetrate uninformed countries. Indeed, this incident stands out as a classic case of an exploitative dumping on the uninformed. It could also be termed as a case of an organized crime by a foreign company operating in Nigeria with international waste brokers. And it is important to add that ever since this incident, Nigeria has become an outspoken opponent of shipments of wastes to Africa. Soon after this horrible incident, Nigeria initiated the creation of a regional "Dumpwatch." Nigeria also sought to cooperate with other West African countries in an attempt to help one another police the West African borders and turn back illegal waste shipments.\(^{13}\) (See Fig. 5). The consequences of this illegal dumping were many. A farmer, Mr. Sunday Nana, lost his life, nineteen villagers were reported dead, three workers repackaging the toxins were severely burned, and one was partially paralyzed. One can only imagine the threat to the health of the surrounding population caused by the toxin leaching into the groundwater and the nearby river. Over 50 people were jailed and the Italian government was made to pay and return the chemicals.

\(^{13}\)Ibid.
Fig. 5. An Artist Impression of the Nigerian Authorities' Reaction to Toxic Waste Import.

CHAPTER V
SIERRA LEONE - A CASE STUDY

Introduction

Sierra Leone is a former British colony and protectorate with a population of about 4.2 million (1990). Sierra Leone had a fairly stable civilian government until April 29, 1992 when the military took over in a military coup. From World Bank social and economic indicators, Sierra Leone in 1989 was ranked one of the poorest countries in the world. In the same year its total debt as percentage of GNP was 120 percent. Between 1990-92, the country had an estimated per capita income of $170 falling from $220 in 1989 and below the average of $390 for all of the sub-Saharan Africa (excluding South Africa). Sierra Leone's export earnings come from the agricultural sector (including forestry and fishing) of the economy that employs about two-thirds of the work force. The main subsistence crop is rice while cocoa, coffee and palm kernel are the leading agricultural exports. Minerals extracted

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2 Ibid.
include gold, bauxite and rutile. A rapidly dwindling diamond reserve provided about 15 percent of export earnings in 1989.³

Like most West African countries, environmental consciousness is non or barely existent in Sierra Leone and, of course, there are no grassroots environmental movements to militate for environmental protection. The illiteracy rate of Sierra Leone for 1987-92 is estimated at about 79 percent.⁴

According to Africa Report of October, 1988, the waste dumping in Sierra Leone occurred in 1988 when the United Kingdom exported about 628 bags of hazardous waste containing Ammonia and formaldehyde mislabeled as construction material to some local importers. The local importers, on finding out that the contents of the bags were not construction material they had originally ordered, decided to dump the hazardous waste in a local garbage. The shipment of this mislabeled hazardous waste was done by Dumba International. This incident came to light when residents complained of choking fumes that was fast spreading and penetrating the area.⁵ After an official

³Political Handbook of Africa: South of the Sahara, Political Science Dept., Clark Atlanta University, 1992.
investigation, Sierra Leone authorities arrested two people, including Minette Golley, the wife of a prominent judge. According to Golley account, the bags were imported from the U.K. as construction materials, but were found to be unusable for construction and were subsequently dumped. Tests run on the wastes in Sierra Leone determined that they contained ammonia, formaldehyde, and carbon monoxide.  

According to Greenpeace report, another attempt to dump solid waste from Belgium in 1989 was rejected by Sierra Leone. Earlier in 1979 an American company, the Colorado-based Nedlog Technology Group Inc., had offered Sierra Leone $25 million to use its territory for waste disposal. It was under mounting pressure that the then President Siaka Stevens was forced to reject such a tempting deal.

Analysis

The Sierra Leone case of dumping and cases of refusal to accept hazardous wastes for dumping appear not to fully support the hypothesis advanced in Chapter I of this study—that toxic and hazardous waste trade follow the path of the poor, the corrupt or the uninformed and it is exploitative. From World Bank social and economic

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6 Greenpeace, 102. These 628 bags of poisonous wastes are considered hazardous by this study as they are capable of posing health risks.

indicators of development, Sierra Leone in 1989 was ranked one of the poorest countries in the world. Such a picture has tempted developed countries to perceive Sierra Leone as a country that would readily be open for hazardous wastes dumping schemes for cash. It is interesting to see a poor country like Sierra Leone refusing to accept hazardous wastes for cash. Secondly, the refusal of a $25 million deal by the then president Siaka Stevens under pressure, explains to some degree the level of awareness in the country regarding hazardous waste, while also explaining that more likely some of the dumping schemes are usually abetted by African leaders. This importation was not an official order by the government of Sierra Leone. It was an importation by an informed local citizen. This is another possible case of organized crime by the exporting country, the UK, or its agents, who mislabeled hazardous waste as construction materials and shipped such to Sierra Leone. The shipment was a fraud that could not be detected by the entry port authorities. The sustained argument here in support of the hypothesis is that it is exploitative.

Was the waste importation based on informed decisions?

The dumping case here was fairly based on informed decisions as the importers of the construction material knew exactly what they were importing and were able to detect their order was not right. The shipment was a fraud that
was not detected by the Sierra Leone authorities at the port of entry. The labeling of the hazardous waste as construction material was mischievous. The exporting country, UK, must be blamed for this type of trade based on deception and misinformation. The importation here by local citizens of Sierra Leone was somehow based on informed decisions as the importers knew exactly what they were importing. The shipment was a fraud that could not be detected by the entry port authorities. In the other hazardous waste importation schemes or attempts, the government authorities in Sierra Leone were well informed and they decided to deny their entry into the country.

**Was the waste trade exploitative?**

The fact that the hazardous waste shipment was labeled "construction material" rather than hazardous waste made it obvious that the exportation was fraudulent and was designed to take advantage of the Sierra Leone's authorities at the port and the importers. This type of trade is surely fraudulent and exploitative.

**Conclusion**

The conclusion from the case of importation and cases of attempted dumping of hazardous wastes is that they do not in totality support the hypothesis advanced in Chapter I--that hazardous and toxic wastes trade follow the path of the
poor, the corrupt or the uninformed, and is exploitative. The import trade deal was one based on informed decisions. The cases of attempted dumping of hazardous wastes were based on informed decision as the Sierra Leone government officials were able to determine for themselves that such deals were not to their best interest and therefore refused.

The fraudulent manner with which the waste was exported into the country was a deliberate attempt to exploit an African country by European waste trade brokers. There is no doubt that the cases of attempted waste import were cases of trying to take advantage of a poor African country. The hypothesis is supported very much only in the fact that this type of trade is exploitative. The importing or recipient country though poor demonstrated it was somehow informed about the dangers of hazardous waste trade and was not so desperate to accept hazardous and toxic wastes for cash. The trade in hazardous or toxic wastes has consequences too, in the case of Sierra Leone, though no dead was reported, the air or the environment around the dumping site was polluted by choking fumes from the hazardous chemicals and the threat to health could only be imagined.
The following chapter examines the case of dumping in Guinea-Bissau that the government was pressured by external influence to rescind the contract before it was about to take off.
CHAPTER VI

GUINEA-BISSAU - A CASE STUDY

Introduction

Guinea-Bissau, with a population of about one million. In 1989 it had an estimated per capita income of $180, which was far less than the average for all of the Sub-Saharan Africa (excluding South Africa) of $390.\(^1\) Guinea-Bissau had an external debt that stood at about $458mn in 1988 and $505mn in 1989, giving total external debt as percentage of GNP of 271 percent for 1988 and 1989.\(^2\) Indeed, with Guinea-Bissau's economic performance, it ranks among the poorest countries in the world.

Guinea-Bissau gained independence from the Portuguese in 1974. The country depends a great deal on foreign aid from industrialized countries and other international development agencies.\(^3\) In Guinea-Bissau, environmental awareness is non-existent. With low level adult education

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\(^2\)EIU Country Profile: Guinea-Bissau, 46-47.

the population depends on the government to protect both the environment and the public health. And the government has no environmental laws or legislation and like other West African countries, environmental protection is low on the government list of priorities. Given Guinea-Bissau's social indicators of development, the country is among the poorest in the region. It is politically weak with no signs of being able to break out of the circle of poverty.

According to a Greenpeace account, Guinea-Bissau officials were first approached by Western exporters of waste in 1987 to accept a load of incinerator ash aboard the Khian Sea. This request was rejected by the Guinea-Bissau government. In 1988 a Swiss company, Soserco, negotiated with the Guinea-Bissau government to import a million tons of hazardous waste for three to five years. This scheme was rejected by the Guinea-Bissau officials, according to spokesmen for the company. The basis for rejection was as a result of public outcry.

Again in 1988, a consortium of Swiss, American, and British companies approached the government of Guinea-Bissau to ship millions of tons of hazardous waste to this country for over several years. This type of scheme, according to


5Ibid., 82-83.
Greenpeace, supports very much the argument that the distribution of power and wealth in the international political economy dictates that developing states become the dumping ground for the waste of the industrialized countries.\textsuperscript{6}

The government of Guinea-Bissau was to receive $40 dollars per ton for accepting to be dumped on. By calculation, this could have provided Guinea-Bissau with a total revenue of about $600 million, an amount about four times the country's GNP and twice its foreign debt. The deal appeared initially attractive to the government of Guinea-Bissau as it was seen as added revenue to pull the country out of poverty and its circle of debt. The wastes would have been dumped in landfills near Guinea-Bissau's border with Senegal. This deal is believed to have been spearheaded by an Italian waste broker.

According to the Greenpeace report, the Minister of Natural Resources and Industry, Filinto Barros, had signed a preliminary contract with two British companies in February 1988, indicating his approval for them to import up to fifteen million tons of toxic waste from the United States, Europe and Australia for five years. The contract, signed by Barros, authorized the firms BIS Import-Export Ltd., with an office in London, and Hobday Ltd., with its head office in the Isles of Mann, to carry out the importation of the wastes.

\textsuperscript{6}Ibid., 81-83.
toxic waste into Guinea-Bissau. Hobday was represented in Guinea-Bissau by a Portuguese citizen, Mr. Carlos Albino Marques de Freitas. BIS Import-Export was represented by an unnamed Portuguese citizen.

Environmental impact assessments of the waste disposal site was under contract with a French consultancy, but were never done. The cash from this raw deal was very tempting and the government officials were very much tempted to make what appeared a big cash deal to them without questioning how much such offer would compare with disposal of the same wastes in the exporting Western countries. By a comparative analysis of disposal cost, it could have been possible to determine how fair the amount offered was.

The U.S. Embassy in Guinea knew about this contract in March 1988, a month after the signing of the contract.7 Hardly was there any information about the activities of the companies involved, or their relationship to one another as they preferred to operate in secret about their plan.8

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7According to US Ambassador Blacken, the agreement first came to the attention of Embassy personnel when the contract was brought to the consul to be notarized (as there are few notaries in Guinea-Bissau). The consul brought the deal to the Ambassador's attention. Backen then cabled the State Department expressing concern about negative political ramifications against the US should the proposal actually succeeds. Mark A. Montgomery, "Want Not, Waste Not: A Realist Theory of the International Trade in Hazardous Waste," (Ph.D. diss., The Fletcher School of Law and Diplomacy, Tufts University, 1993), 43.

8U.S. State Department Telegram Guinea-Bissau 0455, 09 March 1988. Ambassador Blacken reported that the agreement to import wastes was "closely held as the company
Later, another company became involved in this scheme. A Swiss firm, Societe Intercontract S.A. (some documents refer to it as Empresa Intercontract.⁹) also negotiated a contract with the same Guinea-Bissau minister, Filinto Barros. Intercontract had a post office box and an address with the secretary in Belfaux, Canton Fribourg, Switzerland, through which a Genoa-based Italian company conducted business. This company was manned by Gian Franco Ambrosini, who had been involved in a number of other waste trade deals with developing countries.¹⁰

Much as Europe and Australia were mentioned as exporting countries in this waste scheme in Guinea-Bissau, no available information shows that Intercontract, BIS Import-Export, or Hobday had made contact with these countries. Evidence, however, shows that one American company was planning to ship tons of waste to Guinea-Bissau. On investigation, U.S. government officials in Washington found that Robert Zeff, a prominent divorce attorney in Detroit had somehow become associated with Intercontract.¹¹

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¹⁰The standard account of the Zanoobia case appears in Global Dumping Ground, 30-32.

¹¹Montgomery, 34.
Zeff had no direct meeting with the Guinea-Bissau minister, Filinto Barros.

Zeff had created a company named Lindaco a day before it proposed to export wastes to Guinea-Bissau, even though he had no previous experience of waste management. The same Zeff had interests in jai alai frontons in Connecticut, oil companies in Louisiana and Texas and casino in Las Vegas.\(^\text{12}\) The only connection Zeff had with the waste disposal business may have been his personal relations with waste hauling company in Bridgeport, Connecticut.\(^\text{13}\) The U.S. State Department was concerned about the political ramifications of waste export plan that it invited Zeff to Washington for meeting. *Detroit News* had this account of the meeting:

Arriving by Private jet, accompanied by a lawyer and two waste disposal specialists from New Jersey, he (Zeff) held forth for an hour on the advisability of the project. He showed photographs of the dump site. He talked of feasibility studies and environmental safeguards. During the entire meeting, one participant recalled, Zeff never removed his sunglasses..... At the State Department meeting, Zeff did not win over the participants. The EPA's Grieder said pictures of the area where the hazardous waste is to be unloaded showed a "rickety little dock."


\(^\text{13}\)According to Richard Willing, Zeff was involved with business dealings relating to the jai alai fronton in Bridgeport, CT, with the son of Emilio Daddario (sometimes known as "Hi Ho Daddario") who operated a municipal waste collection business in Bridgeport. See Montgomery, 109.
"It looks like something I'd go crabbing off over in Maryland," she said.\textsuperscript{14}

This account gives a vivid picture of a typical waste trade broker. It is common to find waste trade brokers with this kind of unsavory character who will go to any length to make their fortune out of the poor and the uninformed. The author believes an investigation of the role, reputation and activities of these companies and entrepreneurs involved in wastes schemes and their relationships with exporter countries, should be a subject of a further study to fully comprehend the masterminding business of these mindless waste brokers.

Few days after Zeff made his trip to Washington, his lawyer, Ronald A. Schy, filed a notification of intent to export hazardous waste to Guinea-Bissau, and asked for the notification to be processed.\textsuperscript{15} Zeff's Lindaco company requested for permission to export all types of hazardous waste to Guinea-Bissau. Well over 1000 different waste compositions were included in the notification letter from Schy, including explosives to corrosive chemicals. The waste was to be dumped or stored on the land until one

\textsuperscript{14}Montgomery, 110.

\textsuperscript{15}According to EPA, this notification is required under RCRA Waste Export Regulations.
million tons were received leading possibly to land incineration.16

A Guinea-Bissauan businessman, Carlos Bernardo Vieira on March 25, 1988 met with Ambassador Blacken to say that he was involved in the plan to import industrial waste. Mr. Vieira however, did not give specifics of his role but, maintained that all guidelines would be adhered to and that Veritas had been given contract to control and supervise the import and storage [of the wastes].17 According to Roelants du Vivier account, Carlos Bernardo Vieira is the brother of the President of Guinea-Bissau and the owner of the land where part of the imported waste was to be dumped or disposed.18 This land is very near Farim, on the border with Senegal.19 This involvement by the President's brother possibly suggests a personal and vested interest of the President in the waste deal.

The U.S. Environmental Protection Agency sent a telegram on April 5, 1988 to U.S. Embassy in Guinea-Bissau explaining U.S. regulations on the shipment of the hazardous wastes.

16See article 8 of the contract between Intercontract and the government of Guinea-Bissau outlines this project. Fig II.


19Ibid.
waste to Guinea-Bissau. The telegram, a form letter, outlined the proposal made by Lindaco and explained the amounts and types of hazardous waste to be exported. The telegram also instructed embassy personnel to inform the government of Guinea-Bissau requesting a written consent authorizing waste transfer.\(^{20}\)

As the stage was set and this waste shipment business was about to start, the international media took on this proposal and exposed the whole deal. The first exposure appeared on April 4, 1988, in Lisbon's leftist daily newspaper, Diario de Lisboa.\(^{21}\) On April 14, Lisbon radio reported on the contract between a Swiss firm and Guinea-Bissau government to ship waste to Guinea-Bissau.\(^{22}\)

The Senegalese news service on April 14 reported that Guinea-Bissau government had signed a contract to import 15 million tons of toxic waste from the United States for over ten years. Coincidentally, the Economic Officer of the U.S. Embassy was at the home of Alfreda da Silva, the chief of accounting of the National Bank of Guinea dining when the Senegalese news bulletin came on and both were listening

\(^{20}\)This is a standard procedure under the RCRA Waste Export Regulations. See US State Department telegram State 106385, April 5, 1988.

\(^{21}\)U.S. State Department Telegram, Lisbon 03531, April 19, 1988.

\(^{22}\)The British Broadcasting Corporation, Summary of World Broadcasts/The Monitoring Report, April 19, 1988, ME/WOO22/1.
together. In their conversation, Mr. da Silva expressed his fears of Guinea-Bissau becoming the world's toxic waste dumping ground and questioned Filinto Barros and Carlos Bernardo Vieira motives in the waste deal. In a telegram to Washington later, the Embassy official quoted Mr. da Silva's statement in their conversation saying:

several western ambassadors have spoken to President Vieira to object to the deal, and he hoped that the U.S. Embassy would add its voice in warning the President. (The Brazilian, French and U.S. are the only western ambassadors residing here.) [U.S. Embassy personnel] were already aware that the French Ambassador made a demarche to President Vieira opposing the deal. Guinea-Bissau's ambassador in the U.S.S.R. had called on da Silva that same day for details concerning this matter.23

Here, the impact of international pressures on Guinea-Bissau on the waste deal was becoming a concern of the U.S. Embassy and more so as some well informed Guinea-Bissauans were not in accord with the decision of Barros and President Vieira.

The Portuguese daily, Diario Popular, on April 14 also carried an article about the waste deal.24 At the same time the U.S. Embassy in Guinea-Bissau responded with another telegram to Washington requesting the State Department for "press guidance" on the hazardous waste deal and

23 U.S. State Department Telegram, Bissau 0745, April 11, 1988; Montgomery, 110.

24 U.S. State Department Telegram, Lisbon 03531, April 19, 1988; and "Bissau recebe lixo do ocidente," Diario Popular (Lisbon), April 15, 1988. See also Montgomery, 114.
Lindaco/Intercontract proposal specifically. The telegram pointed out the concern that the Senegalese and Portuguese press reports were giving the impression that the U.S. was the only likely source of the waste to be shipped into Guinea-Bissau.

In spite of U.S. denial that it was not the sole waste exporter to Guinea-Bissau, evidence was overwhelming that Lindaco of Detroit, an American company, was the only company that had actually pursued a plan to export waste to Guinea-Bissau. Intercontract of Switzerland and the British firms BIS Import and Hobday apparently had not shown any plans to be involved in the waste export. There was no evidence that these two companies were successful in locating customers in Europe.\(^{25}\) What then appeared obvious was that the waste was indeed going to be primarily of American origin.

\(^{25}\) U.S. State Department Telegram, Bern 2721, April 20, 1988. This report was based on a "street rumor" that a Norwegian Firm was probably involved, but such rumor was never confirmed. The same telegram continued that the Swiss Federal Environmental Office had heard of "two companies located at the same address in Geneva, Maribe, S.A. and Tradasec, S.A., both of 47 rue du 31 Decembre, CH 1211, Geneva, Switzerland, have been seeking to negotiate a contract to serve as agents for Guinea-Bissau in arranging shipment of such wastes from Europe, including Switzerland when their export is permitted by (the government of Switzerland." In another telegram, US State Department Telegram Bern 3908, June 8, 1988, pointed out that Ambrosini had tried to "recruit potential (solvent) clients" in Switzerland and Germany, but could locate none by the time Barros had rescinded from the deal. See Montgomery, 114.
On April 16, 1988, a wire service item from the Portuguese News Agency appeared on the second foreign news page of the Darker newspaper, Le Soleil, reporting the plan to send waste to Guinea-Bissau.\textsuperscript{26} In another article in April 17th reported in the leading Lisbon Daily, Diario de Noticias, the news of Guinea-Bissau deal was mentioned briefly adding that "no decision had yet been reached" by the government of Guinea-Bissau.

On April 19th, the U.S. Embassy received a reply from Filinto Barros, Guinea-Bissau Minister of Natural Resources that the government of Guinea-Bissau was considering Lindaco's (the American company's) proposal.

At this stage the pressure was building up on the government of Guinea-Bissau. The waste trade proposal had been carried alive in the domestic news in Guinea-Bissau. The Minister of Natural Resources, Filinto Barros, was forced to give a radio broadcast on April 23rd giving assurance that the government of Guinea-Bissau was carefully studying the proposal to import waste to ensure safeguards against damage to the people and the environment.

The U.S. Ambassador in Guinea-Bissau, Ambassador Blacken, felt at this juncture to make his assessment of the waste trade deal and the political clout engendered in Guinea-Bissau by this waste trade. Ambassador Blacken made

\textsuperscript{26}See U.S. State Department Telegram, Dakar 04362, April 18, 1988.
the following observations in a telegram to the State Department in Washington:

My impression is that GOGB (Government of Guinea-Bissau), when approached by the representatives of the waste exporting companies, was given a smooth pitch in which possible problems of waste disposal were minimized. The prospect of receiving dollars 40 per ton for 15m tons caused GOGB leaders to leap into the agreement without much prior investigation about the complexities of handling toxic wastes. Since then, each week someone raises a new question and the Guineans are realizing that they do not know much about hazardous waste disposal and that the people who sold them the idea certainly did not prepare them adequately for either the technical questions concerning safeguards and processing the wastes or the public relations implications. The GOGE is beginning to realize that if proper safeguards can be assured, the public relations aspects involving the country's image must be considered.

(...) No members of the international press have arrived here on scene. However, I am getting queries and expressions of concern from GOGB officials who wonder about the GOGB's ability to analyze the dangers and enforce the agreement with the importing companies. They report that President Vieira has told them that he has discussed the pro and cons with me, that I am obtaining information about the wastes and that he has full confidence in that I will help the GOGB avoid problems. I have discussed the matter with the President, drawing upon guidance Department has provided and have urged him to ascertain that the firm Veritas doing the feasibility studies proved answers to the questions as I am not a specialist in such matters. While expression of confidence in the embassy's knowledge are flattering, they are also disconcerting. I am trying to limit my role in this to that of a channel for information and I keep responsibility for evaluation and decision on GOGB and Veritas. Nevertheless, relations here are such that the President and others on both sides of the issue will keep turning to the Embassy for information,
advice and reassurance. We ask therefore to be given as much useful information as possible.\textsuperscript{27}

The picture here is that Blacken strongly believed that Barros and other Guinea-Bissau officials had been misled by the companies proposing the waste imports, and that they were not prepared for the political and/or environmental risks of the waste trade. This picture also supports the conclusion that Guinea-Bissau was a victim of nefarious waste trade brokers.

During a press conference on April 29, 1988, Francois Roelants du Vivier, a member of the European Parliament and one of the co-founders of L'Entente Europeenne pour L'Environnement, "uncovered" the Guinea-Bissau contract with Intercontract of Switzerland. In his moral outrage he explained the exploitation of an impoverished country like Guinea-Bissau by nefarious traffickers in toxic death.\textsuperscript{28}

Copies of the memorandum written by Menezes d'Alva, as well as a copy of the contract between the government of Guinea-Bissau and Intercontract were distributed during the conference. This press conference gave rise to the internationalization of the Guinea-Bissau case.

On May 4, 1988, President Lansana Conte of Guinea made a five-hour surprise visit to Guinea-Bissau to call on

\textsuperscript{27}U.S. State Department Telegram, Bissau 816, April 27, 1988.

\textsuperscript{28}Ibid.
President Vieira. Many speculate that Conte's visit was possibly to advise Vieira not to accept the waste shipment.29

On May 10, 1988, thirty-eight UN personnel based in Guinea-Bissau signed a letter of protest to UN Secretary General, Javier Perez de Cuellar, registering their concern about the waste trade proposal, requesting him to take whatever action possible to keep it from materializing. The letter reads as follows:

We, the United Nations staff stationed in Guinea Bissau, wish to inform you of the government's imminent decision to authorize the deposit of toxic industrial waste in its territory. We are extremely anxious and concerned about this very distressing situation and would request you to thoroughly investigate the consequences of this decision and take action as appropriate lest serious environmental hazards affect both the local population and the international community.30

In a later conversation meeting of American Ambassador Blacken, Gordon Powers, Deputy Director of the State Department's Economic Policy Staff for Africa (who happen to be in Guinea-Bissau on routine visit) and Filinto Barros, Guinea-Bissau Minister for Natural Resources, Barros admitted that the international politics of the affairs were beginning to weigh on his decision. He pointed out the furor in the foreign press, the concern of other African


states, and the rejection by Guinea (Conakry) of the ash dumped on Kassa Island.  

As international pressures were building up, the government of Guinea-Bissau was weighing the risks and benefits of importing hazardous waste. In mid-May, two international organizations made news as they went to press condemning the hazardous trade. The European Parliament on May 19, unanimously passed a resolution condemning the export of hazardous waste to developing nations. It must be added that this European resolution makes several references to the Guinea-Bissau case, indeed suggesting, the parliament vote was influenced very much by the Guinea-Bissau example.

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31U.S. State Department Telegram, Bissau 0969, May 13, 1988. See also Montgomery, 111.


Resolution on Exports of Toxic Waste to the Third World
The European Parliament

A. having regard to the documents circulated by the "Entente Europeenne pour l'Environnement" which show that European and American firms have concluded contracts with the Guinea-Bissau authorities for the disposal in that country of toxic industrial waste at a rate of three million tonnes per year for a five year period at least,

B. whereas the Republic of Guinea-Bissau has been offered a payment of 120 million dollars per annum in return for accepting this waste, a sum which is greater than the country's annual GNP,

C. whereas, in addition to the dangers posed by toxic waste, account must also be taken of the risks involved in long distance transport,

D. whereas the humid climate and the permeable soil of Guinea-Bissau make it unsuitable for the large-scale disposal of dangerous waste, particularly in a region where the European Community is funding a rural development project,

F. whereas it is irresponsible on the part of industrialized countries to dispose of their waste in the poorest countries.

1. Condemns all large-scale exportation of dangerous waste to the developing countries, and calls for existing contracts to be canceled, particularly those involving Guinea-Bissau;

On May 23, 1988, The Organization of African Unity (OAU) Council of Ministers passed a resolution condemning the dumping of nuclear and other hazardous waste in Africa by foreign firms. This resolution was also very much influenced by the Guinea-Bissau case as several paragraphs made veiled references to the proposal contract initially approved by Guinea-Bissau government.
OAU Resolution Against Dumping of Hazardous Waste in Africa
The Organization of African Unity

Aware of the growing practice of dumping nuclear and industrial wastes in African countries by transnational corporations and other enterprises from Industrialized countries, which they cannot dispose of within their territories,

Gravely concerned about the growing tendency of some African countries to conclude agreements or arrangement with such corporations and enterprises which facilitate the dumping of nuclear and industrial wastes in their territorial boundaries,

Bearing in mind the harmful effects of radiation from nuclear and other hazardous industrial waste to human and marine life as well as to the ecosystems on which they depend for their existence:

1. DECLARES that the dumping of nuclear and industrial wastes in Africa is a crime against Africa and the African people;

2. CONDEMN all transnational corporations and enterprises involved in the importation, in any form, of nuclear and industrial wastes in Africa; and DEMANDS that they clean up the areas that have already been contaminated by them;

3. CALLS UPON African countries which have concluded or are in the process of concluding agreements or arrangements for dumping nuclear and industrial wastes in their territories to put an end to these transaction;

4. REQUESTS Member States of the OAU to carry out information campaigns among their people about the danger of Nuclear and Industrial Wastes;(...)34

Indeed, it was this OAU resolution, which like the proverbial straw, broke the camel's back. The Guinea-Bissau Minister of Natural Resources and his government could not face such strong and unified opposition by African countries, western countries and international environmental

organizations. Filinto Barros was forced to back out of the deal.

A report in the *Washington Times* on June 1, 1988, made it clear the Lindaco/Intercontract waste deal was dead. The Times article said that Barros final decision "echoed a resolution passed at last week's summit meeting of the Organization of African Unity that condemned the use of poor African countries as dumping ground for industrial countries." The article also added that Barro's decision "also followed an appeal by the National Union of Guinean Workers to cancel the project on safety grounds."35

According to a telegram report to Washington by the U.S. Ambassador in Guinea-Bissau, John Blacken, Baross pointed out to Blacken that:

> even if the studies were to show that safeguards could be maintained, the pressure created by international criticism and the OAU resolution had been so strong that the government of Guinea-Bissau made a political decision not to proceed with the project, despite the country's desperate need of foreign exchange.36

Minister Barros followed up his government decision with this letter to the U.S. Ambassador, John Blacken:

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35"Guinea-Bissau Cancels Toxic Waste Agreement," *Washington Times*, June 1, 1988, 2. The report was also subsequently picked up by the BBC on June 2, 1988. Agence France-Presse also carried a similar report.

Letter from Minister Filinto Barros to Ambassador John D. Blacken

Bissau, June 3, 1988

Subject: Project on storage of industrial wastes in Guinea-Bissau

Excellency,

Guinea-Bissau has been faced during this period with a difficult and very delicate international situation within the scope of the project mentioned. In spite of all efforts and attempts made to reassure the international public opinion about the government's intention, making known the steps taken during the whole process for a good eventual implementation of the project, an international (and national) campaign was launched in an intensive way against Guinea-Bissau which caused some negative-domestic and external--reactions concerning the project.

Thus, faced with this campaign and taking into account the "resolutions and decisions" reached by the conference of heads of the OAU member states held recently in Addis Ababa (Ethiopia), we regretfully took upon us to inform you that we decided to "suspend" all activity and negotiations that have been undertaken within the scope of this project.

We hope that you will take into account the reasons for our present position, regarding the project mentioned, which is due to a pressured situation.

We are very grateful for the support and information provided by you in the course of the whole process, and we hope to find the same openness, availability and cooperation for other activities in the future.

Please, accept my sincere compliments.

Filinto Barros, Minister of Natural Resources and Industry

On June 16, 1988, President Vieira of Guinea-Bissau called upon developed nations to help in his nation's development instead of offering to dump their industrial

37U.S. State Department Telegram, Bissau 01232, June 14, 1988.
waste there in exchange for cash. "Send us what will enable us to conquer the state of underdevelopment, but not what could kill us." Reaffirming his country's refusal to become "the dust bin of developed countries" under the pretext of being poor, he said Guinea-Bissau will fight "for the good and development of its people and not for creating a situation which risks endangering the whole nation."\(^{38}\)

**Analysis**

It was indeed the alarm raised by international concern and the OAU resolve that forced the government to rescind its decision. Some may well argue that Guinea-Bissau finally abandoned this deal because it gathered sufficient technical advice to make such decision, justifying high risk to the environment. But, its equally true that the main reason for backing out of this deal was the strong international pressure, internal political pressure in Guinea-Bissau and particularly African leaders pressure following the Organization of African leaders resolve to ban the trade in waste that actually aided Guinea-Bissau decision.

\(^{38}\)Xinhua General Overseas News Service, June 16, 1988 (NEXIS), item no. 0616062.
Was the waste trade based on any informed decisions?

To a large extent in this proposal there was a lack of vital technical exchange of information between the exporter and the recipient country, the Guinea-Bissau government on the messy and problematic aspect of this trade. For example, the contract neither mentions exactly how hazardous, how toxic, or how dangerous the waste might be, nor specified how the waste was to be disposed. Also, since Ambrosini (waste broker) was behind the scheme, and had problems exporting waste to other countries, one might well argue that he perhaps deliberately kept the troubling details secret possibly hoping the Guinea-Bissau officials would not ask too many questions. Or it could be that Ambrosini and other nefarious brokers were planning to defraud the Government of Guinea-Bissau.

There is also the argument about the bargaining power between the Third World and industrialized countries. For example, the Brooklyn Journal of International Law, made this argument:

The great disparity of the bargaining power between the Third World and the industrialized world, coupled with the inadequacy of (...) notification requirements, limit the Third World's ability to make an informed decision. It is probable that even when exporters comply with (...) notice and consent provisions, it is highly
unlikely that the consent given by less developed countries is truly informed."\(^{39}\)

Was the payment for the dumping fair?

The government of Guinea-Bissau would have received $40 dollars per ton for disposal service. This would amount to a total revenue of about $600 million, a figure about four times the GNP for Guinea-Bissau. At issue here is that the Government of Guinea-Bissau was very much tempted by the foreign exchange to the point that it almost approved the deal if not for mounting pressures. The government of Guinea-Bissau possibly did not bother to check on how much it could have cost to dispose of the same waste in the export countries. It definitely would cost about $1000.0 or more per ton to dispose of the same toxic waste in the United States in compliance with government regulation. The payment therefore might have been attractive to poor Guinea-Bissau but in comparing with what it would otherwise be paid in the exporting country, it was unfair.

**Conclusion**

The case of Guinea-Bissau clearly supports the study hypothesis that wastes dumping trade follow the path of the poor, the corrupt or the uninformed and it is exploitative. Guinea-Bissau is a poor country that was tempted by the

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economic benefit of importing hazardous wastes. The Guinea-Bissau government was forced to rescind its decision to import the wastes by external political pressures, particularly pressure from member countries of the Organization of African Unity.

The case of Guinea-Bissau was very much the triumph of political pressures over economic benefits. The West African countries fit into this pattern where external pressures always serve to salvage them from the temptation of becoming victims of nefarious waste brokers in desperate attempts to make easy cash. The reluctant manner with which this deal was called off demonstrates Guinea-Bissau officials' interest in making easy money. The whole episode calls to question the intentions of Filinto Barros, President Vieire and his brother, Carlos Beinada Vieira. As typical African national bourgeoisie, this waste trade was an opportunity for them to swell their pockets even at the expense of the masses. Frantz Fanon supports this tendency by African bourgeoisie to capitalize on money deals with foreign counterparts to enrich themselves. Fanon writes:

Since the bourgeoisie has not the economic means to ensure its domination and to throw a few crumbs to the rest of the country; since, moreover, it is preoccupied with filling its pockets as rapidly as possible, the country sinks all the more deeply into stagnation.40

40 Fanon, 165.
While this deduction in the case of Guinea-Bissau could be presumptuous, since the deal was prevented by public and international outcry, this tendency is a common practice among African national bourgeoisie. The case of Guinea-Bissau informs too about unsavory international waste brokers who serve as agents of the industrial countries. The Guinea-Bissau's case confirms the assertion by dependent theorists that an alliance of convenience and common interest exists between the centers of international capitalism and the clientele class that wields power in the dependent economy.\(^4\) However, the case of Guinea-Bissau helped in furthering the consolidation of the African resolve to ban the trade in toxic and hazardous wastes completely in Africa.

The next chapter examines the dumping schemes in Benin. Benin like Guinea-Bissau is a classic example of official waste importation trade by government to earn foreign exchange.

\(^4\)Gilpin, 286-7.
CHAPTER VII

BENIN - A CASE STUDY

Introduction

Benin, a former French colony, was known as Dahomey until 1975. The population of Benin is about 4.6 million (1990). Its GNP per capita in 1989 was $380, slightly lower than the average for all of Sub-Saharan Africa (excluding South Africa) of $390.1 Benin had a total debt as percentage of GNP of 72 percent in 1989. The country's total external debt was $1,367m at the end of 1992.2

Benin has very few natural resources, some of which are not yet exploited, and it derives less than one percent of its GDP from mining. The government operates on a deficit. Living conditions in Benin are harsh compared to other West African countries. About a third of the urban labor force was estimated to be unemployed or underemployed in early 1990s. Benin is one of the countries in West Africa that relies wholly on foreign financial support. Environmental consciousness in the country appears to be virtually nil,

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and there are no grass roots environmental movements to militate for environmental protection.

Benin has been ruled by a former military officer, Mathieu Kerekou since 1972 who later in 1987 resigned from the army to become a civilian head of state. Kerekou pursued a policy of "scientific socialism"--a local form of socialism supposedly based on Marxism-Leninism philosophy.³ As will be seen in the following paragraphs, the People's Republic of Benin under the leadership of Mathieu Kerekou became almost notorious for its role in receiving and storing hazardous and toxic wastes for cash.

According to Africa Analysis, a London based journal, two French shiploads of radioactive French waste were dumped in Benin in 1988 and Greenpeace reports this as unclear (Fig. 3). In exchange for these waste dumping, Benin was to receive special finance assistance for thirty years.⁴ A shipment of nuclear waste from Le Havre in the north of France and transported by the "ganvie" (Benin's only merchant-marine vessel) was buried in Saklo in the Abomey region.⁵ It was one of these dumping practices in Benin that prompted a reaction from Nigeria, a neighboring country

³Ibid., 530.


⁵Africa Newsfile, July 1988, a London-based bulletin.
to issue strong warnings to the Benin government. The Nigerian authorities were aware of an agreement between President Mathieu Kerekou and France to bury nuclear waste near Abomey, which is some 160km north-west of Lagos.\(^6\)

In another report by *Africa Newsfile*, a London based bulletin, the Soviet Union dumped "several tons" of radioactive waste in Benin between 1984 and 1986. The Benin President, according to the bulletin, was well aware of the secretive dumping. A former head of Benin's air force, Christophe Fandohan, was dismissed for trying to stop the Soviets from dumping under the tarmac of the military airfield the Russians were constructing at Canna, 15 km south of Abomey. More than two Benin workers were reported to have died following this incidence at Canna in 1984. This incidence also resulted in a temporary suspension of the airport project. More Soviet radioactive wastes were also dumped in an abandoned quarry at Dan, 25 km north of Abomey. This area has since been converted to a "military zone" and restricted from general public use.

In 1988 Benin signed a contract with the Gibraltar-registered Sesco Ltd. Under this contract, Sesco Ltd. was to deliver up to five million tons of toxic waste from Europe and North America to Benin each year, and will pay Benin

\(^6\)Charles Secrett, "Deadly Offer Poor Countries Find Hard to Refuse", in *New Straits Times*, July 1988.
$2.50 per ton of waste dumped. The normal cost of disposing such waste in Europe according to European Environmental Association, is estimated between $140—160 per tonne. However, the dumping site for the waste was to be near the historical center of the Fon empire at Abomey, about 60 miles north of the capital, Cotonu.

This deal sparked an uproar. Abomey, being traditionally a hot bed of dissent against the Benin supremo, dumping the waste there sparked opposition protests which followed army officers from Abomey being arrested and accused of plotting a coup. Because of the mounting pressure, Benin was forced to back out of this waste deal. Benin of all the states in West Africa that are involved in the waste trade has maintain the most equivocal attitude towards this trade in hazardous and toxic wastes. This attitude of Benin was encouraged and abetted by its President, Mathieu Kerekou. Interviewed during a meeting of Economic Community of West African States (ECOWAS) leaders, President Mathieu Kerekou openly explained his country's plan to import toxic waste, denying rumors that it was nuclear residues.  

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7 Africa Report, September 1988, 47.
Analysis

This Benin case study is another good example that supports the hypothesis that toxic and hazardous waste trade follow the path of the poor, the corrupt or uninformed and it is exploitative. There is no doubt that Benin is a very poor country even on a comparative basis with the rest of the West African countries and as such depends largely on handouts from the rich countries. It is important to note too that the French government still maintains a neo-colonial and exploitative relationship with their former colonies in West Africa. Benin happens to be one of such countries in West Africa that still serves very much the French interest. The French exploited such relationship with Benin as a means of transferring their unwanted wastes to this poor country for token economic assistance.8 On the other hand, the Benin government leaders particularly under President Mathieu Kerekou, were very much tempted by foreign cash considering the country's poor condition. The dismissal of a former Head of Benin's Air Force, Christophe Fandohn, for trying to stop the Soviets from dumping under the tarmac of the military airfield at Canna, illustrates how costly and humiliating it can be to oppose foreign collaborated interests in West Africa, even when these interests are at the expense of the common people. If an

8Ibid., 48, and Dowden, 1988.
air force officer was treated this way for opposing a waste deal, you can imagine how a common civilian would be treated. Benin has a high illiteracy rate (77%)\textsuperscript{9}, which makes it more difficult to have grassroot environmental awareness movement in this country. Also, it appears that in spite of the pressures several African leaders have brought upon Benin to stop importing wastes, this country's attitude remains defiantly equivocal.

Was the dumping trade based on informed decisions?

In all the cases of dumping or importation, there are no evidence to show that the Benin government was properly informed or briefed about the type of waste that was exported into the country either by the Soviets or the French. The fact that the then President Mathieu Kerekou had denied that the wastes dumped in his country were not nuclear wastes proves the point that either the President was refusing to accept the fact or could not distinguish between nuclear or radioactive waste and other types of waste. More often as it has been pointed out in previous case studies, the exporters of wastes have the tendency of misleading the importers or recipient countries by mislabeling. For recipient countries to make well informed decisions, their assessment of the wastes must be based on

\textsuperscript{9}1994 World Bank Social Indicators of Development.
official communicated knowledge from the exporting countries which also requires verification from other sources. The case of Benin, like most of the cases in West Africa, was a trade based largely on uninformed decisions.

Was payment for the dumping fair?

The French nuclear waste dumping was in exchange for some French financial assistance, and the specific amount was not given. The Soviet dumping too did not give the specific payments made to the Benin government. But the later rejected the deal, the contract with the Gibraltar-registered British company Sesco Ltd. to dump up to 5 million tons of wastes was a raw deal for Benin. Benin was offered $2.50 a ton compared to $40 a ton offered by other companies to Guinea-Bissau and the normal cost of disposing waste in Europe at $140-160 per ton. To poor Benin these token offers might have been quite a deal, given the country's poor condition. But, comparing these offers to what could have been paid in the exporters' countries, and considering that the dumping schemes in Canna for example, claimed two Benin workers' lives, the payments were token and exploitative.

Conclusion

Some deductions can be made from this case of waste dumping in Benin, which in some way supports the stated
hypothesis in chapter one: that hazardous and toxic wastes dumping trade follow the path of the poor, the corrupt or the uninformed and it is exploitative. The Benin trade of importing nuclear wastes was an official government business based on uninformed decisions. Uninformed because from all indications, the government of Benin like most West African countries, does not have the technical expertise of managing hazardous and toxic wastes. Benin with illiteracy rate of about 77% clearly explains why there is a total absence of environmental awareness and grassroot environmental movements that should have helped enlightened the people about environmental issues. In the absence of environmental awareness and education, the people of Benin like what obtains in most West African countries rely wholly on their government to protect the environment. Also, as a poor country given Benin's social indicators of development, the government under President Kerekou was tempted very much by foreign exchange payment for waste maybe to settle its huge foreign debt and not minding the risks to lives and the environment. The case of Benin also portrays the exploitative relationship that still exists between West African countries and their colonial masters. Benin for example, is still very much dependent on France for its economic survival, France being its main creditor. Benin dependence on France has been very much a collaboration
strongly supported by some government officials like the then President Mathieu Kerekou. Benin possibly enjoyed the same economic relationship with the former Soviet Union. For President Mathieu Kerekou to embrace a local form of socialism based on marxism-leninism philosophy suggests he had deep interest in the socialist ideology and likely maintained good relationship with the socialist countries. President Kerekou's outspoken stand to continue the importation of hazardous and toxic wastes despite pressure from his neighboring African states explains how desperate Benin was to make money from the waste trade. President Kerekou and his loyal government officials involvement in hazardous and toxic wastes trade very much highlights the problems of the African national bourgeoisie. Writing on the problems of the national bourgeoisie, Fantz Fanon contends that:

The national bourgeoisie turns its back more and more on the interior and on the real facts of its undeveloped country, and tends to look toward the former mother country and the foreign capitalists who count on its obliging compliance.\(^{10}\)

Benin Government's waste trade relation with France and the former Soviet Union was based on a dependent or exploitative basis that made Benin to settle for any token gesture. The consequences for Benin in this trade in hazardous and toxic

\(^{10}\)Frantz Fanon, *The Wretched of The Earth* (New York: Grove Press, Inc., 1963), 165.
wastes are many. Benin officials may not be aware that without the scientific knowledge of safe disposal and management of the hazardous and toxic wastes, it could be a costly adventure that could end up destroying the entire population and the environment with time. Like a timed bomb, these toxic and hazardous wastes disposed anyhow would surely surface someday and the population will stand to lose. The threat to human lives, the damage to the soil and drinking water can only be imagined.
CHAPTER VIII
SUMMARY AND CONCLUSION

This study has fairly examined the impact of the international trade in hazardous and toxic wastes in West Africa. This chapter begins with a brief summary of the international response to the waste trade to shed more light on the international perception of this trade.

Since the 1980s, international trade in hazardous wastes trade has drummed up a lot of world attention and concerns. As a result, an evolution of continental and global concerns and decisions has emerged which is shaping the general perception about this trade in toxic and hazardous wastes towards a total ban. There is a growing global awareness to ban international trade in hazardous wastes. One reason is the United Nations Environmental Program working group models its efforts after the regulatory systems created in North America and Europe. As a result, these systems, which are based on the principle of "prior informed consent," have done nothing to stem the flow of wastes, often illegal, from North America and Europe to developing countries. Also, bureaucratic systems designed to monitor the flow of wastes from industrialized nations ...
appear to be incapable of stopping the proliferation of "sham recycling" and overtly illegal waste export schemes.

The international trade in hazardous wastes has been widely condemned by Africans, other Third World countries, some developed countries, and many international organizations. The incidence of trans-national dumping of hazardous and toxic wastes was a major issue in Lome during the June 1988 conference of the Economic Community of West African States (ECOWAS). It was realized from the conference that at least 10 African states had signed or were negotiating waste disposal contracts. This revelation emerged with shocking brutality and raised serious concerns about the North-South relations. The meeting of ECOWAS leaders though in principle agreed to make it a criminal offense, for trading in dangerous waste. Leaders like President Mathieu Kerekou of Benin, openly explained his country's plan to import toxic waste, denying rumor that it was nuclear residues.\(^1\) The position of President Kerekou, for example, illustrates the different positions of some African leaders on this international trade based on their interest and perception of environmental issues.

However, in June 1988, the 16 heads of state of Economic Community of West Africa States (ECOWAS) followed with a declaration that it was a criminal offense to aid

\(^1\)Africa Report, August 1988, 47
dumpers in the region. Nigeria, Sierra Leone, Guinea, Guinea-Bissau, Gabon, Senegal, Togo, and Ivory Coast have all at the country level officially prohibited the use of their territories for dumping hazardous and toxic wastes. For example, in the Ivory Coast, there is legislation that permits imprisonment of up to 20 years and fine of up to $1.6m for a toxic trade deal. Nigerian military government has threatened to execute guilty importers. ²

On a wider international level, concerns over the international trade in hazardous waste have brought about resolutions to ban hazardous wastes trade. In 1972, a United Nations Conference on Human Environment, in a declaration called "principle 21" adopted at Stockholm, states that each state is responsible for ensuring that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of their national jurisdiction.

In June 1987, a resolution called the Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes adopted by the Governing Council of the United Nations Environmental Program (UNEP) by decision 14/30 was adopted. The Cairo Guidelines state in part that states should take such steps as are necessary to promote the development and employment of low-waste technologies

applicable to activities generating hazardous wastes and the recycling and reuse of hazardous wastes unavoidably produced by such activities.

The Lome' convention of 1989 banned waste exports from the European Community to any of the former European Community (EC) colonies, 69 in Africa, Caribbean and Pacific.

In the late 1980s, against the backdrop of several highly publicized transboundary toxic shipments and dumping of hazardous wastes illegally in developing countries, the Basel Convention was negotiated. The Basel Convention was adopted in March 1989. Ninety-one countries plus the EC ratified the international treaty to control the trade in hazardous wastes in Switzerland and came into force in May 1992. The United States did not ratify this treaty. At this meeting, a decision was taken asking all developing countries to ban all hazardous waste imports. It was agreed that industrialized countries should ban all hazardous waste exports, pending the review of a paper on the issue of recycling to be submitted to the second Conference of Parties. Two important recognition of this treaty as contained in articles 6 and 9 were the need for notification between parties and the handling of illegal trafficking. The Basel Convention in summary has four fundamental principles: 1. Parties must ensure that the transboundary
movement of hazardous wastes be reduced to a minimum. 2. Parties must ensure that the generation of hazardous wastes be reduced to a minimum. 3. Parties must have the obligation "to the extent possible" to locate hazardous waste management facilities on their own territories. 4. Parties must take "all practicable steps" to ensure that hazardous wastes are managed in an environmentally sound manner.

The Basel Convention to some expert is a product of the Cold War era that has been drawn on lines between the North and the South. For example, Cusack wrote that the Basel Convention reflects most industrialized nations' strategy to checkmate developing nations into accepting waste exports... [Thus] Basel Convention has legitimized the international toxic waste game and proclaimed industrial nations the winners.³

However, many waste trade critics still maintain that wastes are not appropriate commodities for trade in the global marketplace. The export of wastes they contend serve as safety valve for waste generators in the industrialized countries, where both popular and official recognition of the need for better protection of public health and the environment is escalating the cost of waste disposal.

The prevailing trend shows that many countries and regions of the world are responding in support of a call for a ban on international trade in hazardous wastes trade. According to Greenpeace account, as of September 1993, 95 countries and two regions of the World (Africa and Central America) have prohibited all imports of hazardous wastes into their territories. The Pacific and the Mediterranean regions are in the process of drafting their regional instruments to ban waste trade. The list continues with 16 of the 24 countries of the Organization for Economic Cooperation and Development (OECD), including Belgium, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the G-77 (Group of 77, a coalition of less industrialized and newly industrialized countries), and China.\(^4\)

Finally on March 25, 1994, in Geneva, Switzerland, 65 parties to the Basel Convention unanimously banned all transboundary movements of hazardous wastes from the 25 rich, industrialized countries of the OECD including Mexico to other non-OECD states. This bold decision to ban waste trade is both historic and unprecedented and shall take

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effect in 1998 as it includes all hazardous wastes even those destined for recycling or recovery.\footnote{Ibid., 2.}

Summary of Analyses

Preceding chapters on literature review and theoretical analysis have reviewed the contributions and limitations of the adopted approaches on international political economy for the study of international trade in toxic and hazardous wastes. The different analyses of the international trade in wastes dumping is rooted in the different perceptions of toxic and hazardous wastes as a trading commodity. The liberal perspective sees the poor countries with low wage as the proper place to dump, or dispose of globally produced hazardous and toxic wastes in order to maximize worldwide economic value of human life. And too, that in moving polluting industries from industrial to poor countries, worldwide cost of production will fall. It emphasizes the philosophy of laissez-faire where the "invisible hand" determines the supply and demand mechanisms of the market. The liberals' solutions to the problems of wastes trade include proposals for correcting the market failures; like harmonization of definitions and standards, prior informed notification and consent, and rules and international liability, the creation of an international
emergency fund, waste reduction and minimization at its source, and redefinitions of state sovereignty.

The realists would prefer to adopt protectionists trade policies to safeguard the interest of the states whenever necessary, but will not support a ban on the international trade in wastes. The realists' state-centric and power assumptions seem to ignore the role of international organizations in global environmental protection. Realists' assumptions do not all apply to the West African countries given the disparaging conditions of most of these countries. Therefore, these assumptions do not fully inform on the waste trade.

The radical/marxist perspective to international trade in wastes contends that the present structure of the political economy favors the interest of the rich countries over the interest of the poor countries. The radicals/marxists favor protectionism and postulate that the poor are poor because of inequality in the world economic structure governing trade, aid and monetary relation. Developing countries are held captives by the supranational forces of the world's capitalist system. The radicals/marxists therefore advocate that the solution to the problem with waste trade is outright ban.

The dependency perspective stresses the exploitative relations between the developed countries and the poor
developing countries--a historical pattern that can be traced back to slave trade days in West Africa. The resultant effect of dependency is underdevelopment and poverty. For example, the dependency school stresses that the debt condition of the West African countries tends to create permanent dependent local structures that are gullible and vulnerable.

The various approaches to the same issue can be summarized around two opposing paradigms. The first paradigm, which could substitute for protectionism, is a common denominator for the radical/marxist and the dependency approaches that defines the trade in wastes as exploitative dumping on the poor and the uninformed and such trade as promoting distortions in development strategy. This paradigm fairly supports the adopted case study hypothesis--that hazardous and toxic wastes trade follow the path of the poor, the corrupt or the uninformed and it is exploitative. The solution, according to this paradigm, is an outright ban of this trade. The realists' reasoning fall under this categorization where states always emerge the winners of the zero-sum game. The realists, however, differ in their solution to the waste problem.

The second paradigm, which underlies the liberal perspective sees wastes trade as a natural element of growth that can spread development from the developing countries to
the poor developing countries. The solution, according to this paradigm, is not in outright banning but in form of international control by international regulations that ensures that recipient or importing states are always properly informed before agreeing on any trade transactions. But, the problem here lies in the guarantee that international regulations will be enforced. And one might add by who and how?

The case studies of Guinea, Nigeria, Sierra Leone, Guinea-Bissau and Benin fairly confirm the hypothesis that toxic and hazardous wastes trade follow the path of the poor, the corrupt or uninformed and is exploitative. These countries are by their GNP poor countries that have been made to depend wholly on the industrialized countries for their survival. Environmental awareness in these West African countries is lacking as this type of awareness is hardly encouraged by authoritarian rule that abounds in this region. Government regulations and laws are non-existent. As a result, it has been easy for these West African countries to become victims of nefarious Western waste trade brokers and waste importers.

This study notes the enlightened and political roles played by organizations like OAU and Greenpeace and other environmental organizations that have helped in alarming the world of the dangers of this deadly trade. The OAU member
countries have particularly been influential politically in helping to discourage poor African countries from being tempted by monetary attractions to become dumping grounds for toxic and hazardous wastes (see Appendix E).

The cases of waste trade in Nigeria, Guinea and Sierra Leone were cases of corrupt trading schemes between West African based foreign companies and/or individuals in the West African countries and nefarious Western waste trade brokers or companies. Indeed, the three cases may not be unrelated with organized crimes by companies. These were at large cases of exploitation by foreign waste companies and abetted by middlemen in the West African countries. All these cases were very much successful schemes of dumping of toxic and hazardous wastes which were in all cases done without the proper information exchange with the governments of the recipient countries.

The cases of waste trade in Guinea-Bissau and Benin illustrate cases of poor and desperate West African governments maneuvering or trying to import toxic and hazardous waste for money. Again, these two countries driven by poverty were saved the potential of becoming major West African toxic and hazardous waste dumping grounds by the strong political will of the OAU member countries and international environmental organizations who helped expose the waste schemes. These countries considered economic
benefit over potential health, environmental, and socioeconomic effects. Benin particularly, has been very reluctant to stop the importation of wastes in spite of strong protest by other OAU member countries.

Benin and Guinea-Bissau examples have also demonstrated that even in cases of official importation of wastes, the West African countries are always on the disadvantage as they are usually uninformed on environmental issues and on the basis that trade exchange and relations are always uneven. The point must also be made that in all the cases examined, it was always the exporting countries or their agents, the waste brokers, who approached the poor West African countries to accept hazardous and toxic wastes for cash. The Benin and Guinea-Bissau examples illustrate the continuation and perpetuation of dependent relations between France and Portugal respectively with their former colonial territories. For example, Benin is still very much dependent on France for its economic survival, France being its main creditor. Benin dependence on France has been supported by some government officials like the then President Mathieu Kerekou. Benin possibly enjoyed the same economic relationship with the former Soviet Union. For President Mathieu Kerekou to promote a local form of socialism based on marxism-leninism philosophy suggests he
had deep interest in the socialist ideology and likely maintained good relationship with the socialist countries. President Kerekou's outspoken stand to continue the importation of hazardous and toxic wastes despite pressure from neighboring African states explains not only how desperate Benin was to make money from the waste trade, but also explains the problem of the African national bourgeoisie. The same deduction can be made of the Guinea-Bissau's case. The reluctant manner with which the waste deal was called off demonstrates Guinea-Bissau officials interest in making easy money. The whole episode calls to question the intentions of Filinto Barros, President Vieira and his brother, Carlos Beinada Vieira. As typical African bourgeoisie, this waste trade was an opportunity for them to swell their pockets even at the expense of the masses. Frantz Fanon supports this tendency by African bourgeoisie to capitalize on money deals with foreign counterparts to enrich themselves as he writes:

> Since the bourgeoisie has not the economic means to ensure its domination and to throw a few crumbs to the rest of the country; since, moreover, it is preoccupied with filling its pockets as rapidly as possible,... the country sinks all the more deeply into stagnation.⁶

On the relationship between the foreign waste brokers and local bourgeoisie elite, foreign waste brokers have been

⁶Frantz Fanon, *The Wretched Of The Earth* (New York: Grove Press, 1963), 165.
known to encourage and perpetuate corruption in poor countries in their desperate attempts to dispose wastes for cash. The cases of Nigeria, Guinea and Sierra Leone are glaring examples of corrupt collaborative relations between foreign waste brokers and local bourgeoisie elites. Agents of the industrialized countries have the tendency of often mislabeling their waste shipments to evade arrest by local custom officials. Imagine the role of the waste brokers and regulatory agencies of the exporting countries who always tend to give assurances to recipient countries of the harmlessness of wastes from which no safe means of disposal exist.

This study posits that the political economy of international trade in hazardous and toxic wastes in West Africa is better explained by the radical/marxist and dependency approaches as these perspectives seek to address the implications and dangers in the waste trade than the liberal's approach that appears to show utter contempt for the world's poor and the world environment. The radical/marxist and dependency approaches argue that the potential health risks, environmental effects, and other long-term effects arising from the toxic and hazardous wastes trade schemes are likely to exceed the short term economic benefits and possibly with more tragic consequences than slave trade. The dependency approach contentions also
fairly support the hypothesis—that hazardous and toxic wastes trade is exploitative.

**Conclusion**

It is clear that toxic and hazardous wastes dumping trade will likely continue to follow the path of the poor, the corrupt or the uninformed and remain exploitative except the global ban on this trade is enforced. This international trade in hazardous and toxic wastes does not properly serve development in the West African countries. As defended strongly by the dependency and the radical/marxist theories, this type of waste trade relations between the industrialized countries and the developing countries cannot lead to true development. It is inhumane to deliberately dump life and environmentally threatening hazards on others especially the uninformed. It is morally repugnant. The international trade in hazardous and toxic wastes does not only divert attention from proper development, it posses a serious threat to the lives of the West African people and the environment.

Many in Africa for example, have equated the international trade in hazardous and toxic wastes in Africa as another form of slave trade. And they contend, as a modern form of slave trade, the version is just as nasty but, the cargo is hazardous wastes, not human beings and although the traffic is still one-way, the direction has
changed. Other Africans see this trade as "toxic terrorism." African consumer organizations from 18 countries at a meeting in Nairobi in 1988 deplored the dumping of industrial waste on the continent and demanded "an immediate stop to such shameful acts and call on all African governments and international agencies to act decisively on these acts of toxic terrorism." 7

Organization of African Unity (OAU) Foreign Ministers Summit in Addis Ababa condemned this trade and demanded an outright ban. On May 25, 1988, African foreign ministers pledged in a resolution to stop the dumping of foreign (toxic) wastes in Africa. In a declaration drafted to mark the 25th anniversary of the founding of the Organization of African Unity, African states pledged

to refrain from entering into agreements with any industrialized countries, transnational corporations, privates companies or interest groups on the dumping of nuclear and hazardous industrial wastes on African territories. 8

In 1991 the Bamako Convention was enacted, banning all waste imports into Africa, but permitting movements between African countries pursuant to the prior notification and informed consent requirement, and a version of proximity and


self-sufficiency principles parallel to the one contained in the Basel Convention. Critics, however, see the Bamako Convention as an idealistic legislation establishing ambitious goals but without means (financial resources) to enforce and support the ban. (Appendix E gives the full text of the Bamako Convention.) In spite of criticism, the Bamako Convention has been reported as curbing the waste trade with African countries and contributing to the increase of waste trade with other less developed countries.\(^9\) The Bamako waste ban legislation, its shortcomings notwithstanding, supports very much the conclusion of this study. Indeed, this study contends that the shortcomings, like lack of enforcement and financial resource, can be addressed by adopting the Nigerian initiative of organizing a regional "Dumpwatch" which is more financially feasible than a state-organized "Dumpwatch," as an enforcement mechanism.

It must be noted that other international instruments like the Basel Convention have played important roles in generating and focusing debates on the international trade in toxic and hazardous wastes. For example, both the Basel and Bamako Conventions have tended to restrict or ban waste movements. The Basel Convention, adopted in 1989 and ratified in 1991, stresses prior notification and informed

consent of the importing country before any waste transfer. It favors recycling, disposal close to the place of waste generation and emphasizes self-sufficiency in the waste management. However, the Basel Convention fails to identify "sound waste management" which opens it to divergent interpretations. For example, critics contend that the Basel Convention uses politically popular vocabulary to cloak realistic but unpopular goals in order to make them acceptable to certain constituencies. However, on March 1994, the Basel Convention, in a bold and historic decision that will take effect in 1998, banned all transboundary movements of hazardous wastes from the 25 rich industrialized countries of the OECD, including Mexico, to other non-OECD countries. As this study finds, the ban on waste trade is not only gaining African consent but also global support.

In addition to the ban on waste trade, West African countries must see democratization as a priority to salvage the disparaging state of development in the region. Democratization should be encouraged to replace authoritarian rule that abounds in the region. There is also the strong need for the West African countries to embrace environmental education and become more politically aware and address corruption especially at the national bourgeoisie level. West African countries must learn fast
to encourage democratic rule that allows for more political enlightenment, awareness and freedom of expression and at the same time encourages environmental education and awareness. In doing this, the masses will become environmentally aware and be able to form grassroots environmental movements that will help lobby the government to promulgate environmental regulations to address issues of waste trade and the environment. Democratically elected government that permits the rule of law, political awareness and freedom of expression is the only possible check to the corrupt indulgence of the bourgeois elites. There is an essential need for African countries, particularly West Africa, to encourage environmental studies and education to narrow down the widening gap in environmental awareness and technology between them and the industrialized countries.

The industrialized nations must realize that the threat to innocent lives and the environment is real in promoting this type of waste trade. The industrialized countries must face up to the responsibility of properly managing their "unwanted wastes" rather than shifting the burden and responsibility to poor and uninformed countries or relying on the presumptuous liberal philosophy of laissez-faire. Many critics of the international trade in hazardous wastes, particularly from the rich to poorer
countries, admit that this trade is a global obstacle to overcoming the hazardous waste crisis.

A lasting solution to the toxic and hazardous wastes dumping trade lies in an enforced worldwide ban. A ban hopefully will provide the incentive to come up with environmentally safe technology at the production end that will minimize or totally eliminate excessive production of toxic and hazardous wastes. For as long as rich countries can cheaply export their hazardous wastes to their poorer neighbors, or poor West African countries, significant steps to eliminate hazardous waste at their source will hardly take place. Action must be taken to eliminate most of the toxic and hazardous wastes problems through prevention.

Recommendations

The following recommendations are therefore advanced in this study:

1. (a) A ban of the toxic and hazardous wastes trade between the developed industrialized nations and the poor, uninformed and unstable countries of West Africa as this region's economic development is not served by becoming a dumping ground for hazards that ruin the environment, but, in a prior agricultural revolution as experienced in the West and Japan. Also, for the ban to be effective, this study highly recommends the continuation of the regional "Dumpwatch" concept initiated by the Nigerian government as
monitoring and enforcement mechanisms. Waste dumping (including sea) and/or waste imports should be treated as illegal and criminal act. (Also see Appendix E, Article 4.)

(b) Coupled with the waste ban enforcement, West African countries should embrace democratization.

2. A radical rethinking in the rich developed countries about the continued production of hazardous wastes and arsenal military weapons like nuclear bombs that produce nuclear wastes, over-hauling of outdated production technology and the encouragement of new incentives and technology that encourage prevention which promote less toxic and hazardous wastes generation. The Vice President, Al Gore, in his book, *Earth in the Balance*, has, in a global Marshall Plan, proposed a worldwide development of a Strategic Environment Initiative (SEI), a program that hopefully would discourage and phase out older inappropriate production technologies and replace them with new and sophisticated and environmentally safe and adaptable technology. This initiative by the Vice President is highly recommended.

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<tr>
<td>Sierra-Leone</td>
<td>6</td>
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<td>Guinea</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>3</td>
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Note: All figures are expressed in relation to the North average, which is indexed to equal 100. The smaller the figure the bigger the gap, the closer the figure to 100 the smaller the gap, and a figure above 100 indicates that the country is better than the North average.

APPENDIX E

ORGANIZATION OF AFRICAN UNITY (OAU)

RESOLUTION

HEADQUARTERS: ADDIS ABABA, ETHIOPIA

MEMBER STATES: EVERY INDEPENDENT AFRICAN STATE, EXCEPT SOUTH AFRICA


29.1.1. STATUS AS OF 6 MARCH 1991, UN doc. UNEP/CHW/WG.1/2/INF.1, 1991

AD HOC WORKING GROUP OF LEGAL AND TECHNICAL EXPERTS TO DEVELOP ELEMENTS WHICH MIGHT BE INCLUDED IN A PROTOCOL ON LIABILITY AND COMPENSATION FOR DAMAGE RESULTING FROM THE TRANSBOUNDARY MOVEMENTS AND DISPOSAL OF HAZARDOUS WASTES AND OTHER WASTES

Second session
Nairobi, 6-9 March 1991

NOTE FROM THE UNEP SECRETARIAT

As requested, the UNEP Secretariat is providing members of the Working Group with copies of the Bamako Convention, signed in Bamako on 29 January 1991. The draft which the UNEP Secretariat possesses is not in final form. The changes adopted in Bamako are introduced in the margin of the text.

To the knowledge of the UNEP Secretariat, the Bamako Convention was signed by the following:

Benin
Burkina Faso
Burundi
Central African Republic
Cote d'Ivoire
Egypt
Guinea
Libya
Mali
Senegal
Togo

As far as the UNEP Secretariat is aware, no ratification has been received up to date.

The Bamako Convention will enter into force after receiving the tenth instrument of ratification.

The Bamako Conference was attended by 29 African countries and by observers from UNEP, WMO and FAO.


PREAMBLE

The Parties to this Convention,

1. Mindful of the growing threat to human health and the environment posed by the increased generation and the complexity of hazardous wastes,

2. Further mindful that the most effective way of protecting human health and the environment from the dangers posed by such wastes is the reduction of their generation to a minimum in terms of quantity and/or hazard potential.

3. Aware of the risk of damage to human health and the environment caused by transboundary movements of hazardous wastes,

4. Reiterating that States should ensure that the generator should carry out his responsibilities with regard to the transport and disposal of hazardous wastes in a manner that is consistent with the protection of human health and environment, whatever the place of disposal,

5. Recalling relevant chapters of the Charter of the Organisation of African Unity (OAU) on environmental
protection, the African Charter for Human and Peoples' Rights, Chapter IX of the Lagos Plan of Action and other Recommendations adopted by the Organisation of African Unity on the environment,

6. Further recognizing the sovereignty of States to ban the importation into, and the transit through, their territory, of hazardous wastes and substances for human health and environmental reasons,

7. Recognizing also the increasing mobilization in Africa for the prohibition of transboundary movements of hazardous wastes and their disposal in African countries,

8. Convinced that hazardous wastes should, as far as is compatible with environmentally sound and efficient management, be disposed in the State where they were generated,

9. Convinced that the effective control and minimization of transboundary movements of hazardous wastes will act as an incentive, in Africa and elsewhere, for the reduction of the volume of the generation of such wastes,

10. Noting that a number of international and regional agreements deal with the problem of the protection and preservation of the environment with regard to the transit of dangerous goods,


13. Concerned by the problem of transboundary traffic in hazardous wastes,

14. Recognizing the need to promote the development of clean production methods, including clean technologies, for the sound management of hazardous wastes produced in Africa, in particular, to avoid, minimize and eliminate the generation of such wastes,

15. Recognizing also that where necessary hazardous wastes should be transported in accordance with relevant international conventions and recommendations,

16. Determined to protect, by strict control, the human health of the African population and the environment against the adverse effects which may result from the generation of hazardous wastes,

17. Affirming a commitment also to responsibly address the problem of hazardous wastes originating within the Continent of Africa,

HAVE AGREED AS FOLLOWS:

Article 1
Definitions

For the purpose of this Convention:

1. "Wastes" are substances or materials which are disposed of, or are intended to be disposed of, or are required to be disposed of by the provisions of national law;

2. "Hazardous wastes" means wastes as specified in Article 2 of this Convention;

3. "Management" means the prevention and reduction of hazardous wastes and the collection, transport, storage, and
treatment either for the reuse or disposal, of hazardous wastes including after-care of disposal sites;

4. "Transboundary movement" means any movement of hazardous wastes from an area under the national jurisdiction of any State to or through an area under the national jurisdiction of another State, or to or through an area not under the national jurisdiction of another State, provided at least two States are involved in the movement;

5. "Clean production methods" means production or industrial systems which avoid, or eliminate the generation of hazardous wastes and hazardous products in conformity with Article 4, section 3 (f) and (g) of this Convention;

6. "Disposal" means any operation specified in Annex III to this Convention;

7. "Approved site or facility" means a site or facility for the disposal of hazardous wastes which is authorised or permitted to operate for this purpose by a relevant authority of the State where the site or facility is located;

8. "Competent authority" means one governmental authority designated by a Party to be responsible, within such geographical areas as the Party may think fit, for receiving the notification of a transboundary movement of hazardous wastes and any information related to it, and for responding to such a notification, as provided in Article 6 of this Convention;

9. "Focal point" means the entity of a Party referred to in Article 5 of this Convention responsible for receiving and submitting information as provided for in Articles 13 and 16;

10. "Environmentally sound management of hazardous wastes" means taking all practicable steps to ensure that hazardous wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes;

11. "Area under the national jurisdiction of a State" means any land, marine area or airspace within which a State exercises administrative and regulatory responsibility in accordance with international law in regard to the protection of human health or the environment;

12. "State of export" means a State from which a transboundary movement of hazardous wastes is planned to be initiated or is initiated;
13. "State of import" means a State to which a transboundary movement is planned or takes place for the purpose of disposal therein or for the purpose of loading prior to disposal in an area not under the national jurisdiction of any State;

14. "State of transit" means any State, other than the State of export or import, through which a movement of hazardous wastes is planned or takes place;

15. "States concerned" means States of export or import, or transit states, whether or not Parties;

16. "Person" means any natural or legal person;

17. "Exporter" means any person under the jurisdiction of the State of export who arranges for hazardous wastes to be exported;

18. "Importer" means any person under the jurisdiction of the State of import who arranges for hazardous wastes to be imported;

19. "Carrier" means any person who carries out the transport of hazardous wastes;

20. "Generator" means any person whose activity produces hazardous wastes, or, if that person is not known, the person who is in possession and/or control of those wastes;

21. "Disposer" means any person to whom hazardous wastes are shipped and who carries out the disposal of such wastes;

22. "Illegal traffic" means any transboundary movement of hazardous wastes as specified in Article 9 of this Convention;

23. "Dumping at sea" means the deliberate disposal of hazardous wastes at sea from vessels, aircraft, platforms or other man-made structures at sea, and includes ocean incineration and disposal into the seabed and sub-seabed.

Article 2
Scope of the Convention

1. The following substances shall be "hazardous wastes" for the purposes of this convention:
(a) Wastes that belong to any category contained in Annex I of this Convention;

(b) Wastes that are not covered under paragraph (a) above but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the State of export, import or transit;

(c) Wastes which possess any of the characteristics contained in Annex II of this Convention;

(d) Hazardous substances which have been banned, canceled or refused registration by government regulatory action, or voluntarily withdrawn from registration in the country of manufacture, for human health or environmental reasons.

2. Wastes which, as a result of being radioactive, are subject to any international control systems, including international instruments, applying specifically to radioactive materials, are included in the scope of this Convention.

3. Wastes which derive from the normal operations of a ship, the discharge of which is covered by another international instrument, shall not fall within the scope of this convention.

Article 3

National Definitions of Hazardous Wastes

1. Each State shall, within six months of becoming a Party to this Convention, inform the Secretariat of the Convention of the wastes, other than those listed in Annex I of this Convention, considered or defined as hazardous under its national legislation and of any requirements concerning transboundary movement procedures applicable to such wastes.

2. Each Party shall subsequently inform the Secretariat of any significant changes to the information it has provided pursuant to Paragraph 1 of this Article.

3. The Secretariat shall forthwith inform all Parties of the information it has received pursuant to paragraphs 1 and 2 of this Article.
4. Parties shall be responsible for making the information transmitted to them by the Secretariat under Paragraph 3 of this Article available to their exporters and other appropriate bodies.

Article 4

General Obligations

1. Hazardous Waste Import Ban

All Parties shall take appropriate legal, administrative and other measures within the area under their jurisdiction to prohibit the import of all hazardous wastes, for any reason, into Africa from non-Contracting Parties. Such import shall be deemed illegal and a criminal act. All Parties shall:

(a) Forward as soon as possible, all information relating to such illegal hazardous waste import activity to the Secretariat who shall distribute the information to all Contracting Parties;

(b) Co-operate to ensure that no imports of hazardous wastes from a non-Party enter a Party to this Convention. To this end, the Parties shall, at the Conference of the Contracting Parties, consider other enforcement mechanisms.

2. Ban on Dumping of Hazardous Wastes at Sea and Internal Waters

(a) Parties in conformity with related international conventions and instruments shall, in the exercise of their jurisdiction within their internal waters, territorial seas, exclusive economic zones and continental shelf, adopt legal, administrative and other appropriate measures to control all carriers from non-Parties, and prohibit the dumping at sea of hazardous wastes, including their incineration at sea and their disposal in the seabed and sub-seabed. Any dumping of hazardous wastes at sea, including incineration at sea as well as seabed and sub-seabed disposal, by Contracting Parties, whether in internal waters, territorial
seas, exclusive economic zones or high seas shall be deemed to be illegal;

(b) Parties shall forward, as soon as possible, all information relating to dumping of hazardous wastes to the Secretariat which shall distribute the information to all Contracting Parties.

3. Waste Generation in Africa

Each Party Shall:

(a) Ensure that hazardous waste generators submit to reports regarding the wastes that they generate in order to enable the Secretariat of the Convention to produce a complete hazardous waste audit;

(b) Impose strict, unlimited liability as well as joint and several liability on hazardous waste generators;

(c) Ensure that the generation of hazardous wastes within the area under its jurisdiction is reduced to a minimum taking into account social, technological and economic aspects;

(d) Ensure the availability of adequate treatment and/or disposal facilities, for the environmentally sound management of hazardous wastes which shall be located, to the extent possible, within its jurisdiction;

(e) Ensure that persons involved in the management of hazardous wastes within its jurisdiction take such steps as are necessary to prevent pollution arising from such wastes and, if such pollution occurs, to minimize the consequence thereof for human health and the environment;

The Adoption of Precautionary Measures:

(f) Each Party shall strive to adopt and implement the preventive, precautionary approach to pollution problems which entails, inter-alia, preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding
such harm. The Parties shall co-operate with each other in taking the appropriate measures to implement the precautionary principle to pollution prevention through the application of clean production methods, rather than the pursuit of a permissible emissions approach based on assimilative capacity assumptions;

(g) In this respect Parties shall promote clean production methods applicable to entire product life cycles including:

- raw material selection, extraction and processing;
- product conceptualisation, design, manufacture and assemblage;
- materials transport during all phases;
- industrial and household usage;
- reintroduction of the product into industrial systems or nature when it no longer serves a useful function;

Clean production shall not include "end-of-pipe pollution controls such as filters and scrubbers, or chemical, physical or biological treatment. Measures which reduce the volume of waste by incineration or concentration, mask the hazard by dilution, or transfer pollutants from one environmental medium to another, are also excluded;

(h) The issue of preventing the transfer to Africa of polluting technologies shall be kept under systematic review by the Secretariat of the Conference and periodic reports shall be made to the Conference of the Parties;

Obligations in the Transport and Transboundary Movement of Hazardous Wastes from Contracting Parties:

(i) Each Party shall prevent the export of hazardous wastes to States which have prohibited by their legislation or international agreement all such imports, or if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner, according to criteria to be decided on by the Parties at their first meeting;
(j) A Party shall not permit hazardous wastes to be exported to a State which does not have the facilities for disposing of them in an environmentally sound manner.

(k) Each Party shall ensure that hazardous wastes to be exported are managed in an environmentally sound manner in the State of import and transit. Technical guidelines for the environmentally sound management of wastes subject to this Convention shall be decided by the Parties at their first meeting;

(l) The Parties agree not to allow the export of hazardous wastes for disposal within the area South of 60 degrees South Latitude, whether or not such wastes are subject to transboundary movement;

(m) Furthermore, each Party shall:

(i) Prohibit all persons under its national jurisdiction from transporting, storing or disposing of hazardous wastes unless such persons are authorized or allowed to perform such operations;

(ii) Ensure that hazardous wastes that are to be the subject of a transboundary movement are packaged, labeled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labeling, and transport, and that due account is taken of relevant internationally recognized practices;

(iii) Ensure that hazardous wastes be accompanied by a movement document, containing information specified in Annex IV B, from the point at which a transboundary movement commences to the point of disposal;

(n) Parties shall take the appropriate measures to ensure that the transboundary movements of hazardous wastes only are allowed if:

(i) The State of export does not have the technical capacity and the necessary facilities, capacity or suitable disposal sites in order to dispose of the wastes in question in an environmentally sound and efficient manner; or
(ii) The transboundary movement in question is in accordance with other criteria to be decided by the Parties, provided those criteria do not differ from the objectives of this Convention;

(o) Under this Convention, the obligation of States in which hazardous wastes are generated, requiring that those wastes are managed in an environmentally sound manner, may not under any circumstances be transferred to the States of import or transit;

(p) Parties shall undertake to review periodically the possibilities for the reduction of the amount and/or the pollution potential of hazardous wastes which are exported to other States;

(q) Parties exercising their right to prohibit the import of hazardous wastes for disposal shall inform the other. Parties of their decision pursuant to Article 13 of this Convention;

(r) Parties shall prohibit or shall not permit the export of hazardous wastes to States which have prohibited the import of such wastes, when notified by the secretariat or any competent authority pursuant to sub-paragraph (q) above;

(s) Parties shall prohibit or shall not permit the export of hazardous wastes if the State of import does not consent in writing to the specific import, in the case where that State of import has not prohibited the import of such wastes;

(t) Parties shall ensure that the transboundary movement of hazardous wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes, and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement;

(u) Parties shall require that information about a proposed transboundary movement of hazardous wastes be provided to the States concerned, according to Annex IV A of this Convention, and clearly state the potential effects of the proposed movement on human health and the environment.
(a) Parties shall undertake to enforce the obligations of this Convention against offenders and infringements according to relevant national laws and/or international law;

(b) Nothing in this Convention shall prevent a Party from imposing additional requirements that are consistent with the provisions of this Convention, and are in accordance with the rules of international law, in order to better protect human health and the environment;

(c) This Convention recognizes the sovereignty of States over their territorial sea, waterways, and air space established in accordance with international law, and jurisdiction which States have in their exclusive economic zone and their continental shelves in accordance with international law, and the exercise by ships and aircraft of all States of navigation rights and freedoms as provided for in international law and as reflected in relevant international instruments.

Article 5

Designation of Competent Authorities, Focal Point and Dumpwatch

To facilitate the implementation of this Convention, the Parties shall:

1. Designate or establish one or more competent authorities and one focal point. One competent authority shall be designated to receive the notification in case of a State of transit.

2. Inform the Secretariat, within three months of the date of the entry into force of this Convention for them, which agencies they have designated as their focal point and their competent authorities.

3. Inform the Secretariat, within one month of the date of decision, of any changes regarding the designations made by them under paragraph 2 above.
4. Appoint a national body to act as a Dumpwatch. In such capacity as a Dumpwatch, the designated national body only will be required to co-ordinate with the concerned governmental and non-governmental bodies.

Article 6

Transboundary Movement and Notification Procedures

1. The State of export shall notify, or shall require the generator or exporter to notify, in writing, through the channel of the competent authority of the State of export, the competent authority of the States concerned of any proposed transboundary movement of hazardous wastes. Such notification shall contain the declarations and information specified in Annex IV A of this Convention, written in a language acceptable to the State of import. Only one notification needs to be sent to each State concerned.

2. The Party of import shall respond to the notifier in writing consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. A copy of the final response of the State of import shall be sent to the competent authorities of the States concerned that are Parties to this Convention.

3. The State of export shall not allow the transboundary movement until it has received:

   (a) written consent of the State of import; and

   (b) from the State of import, written confirmation of the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question.

4. Each State of transit which is a Party to this Convention shall promptly acknowledge to the notifier receipt of the notification. It may subsequently respond to the notifier in writing, within 60 days, consenting to the movement with or without conditions, denying permission for the movement, or requesting additional information. The State of export shall not allow the transboundary movement to commence until it has received the written consent of the State of transit.

5. In the case of a transboundary movement of hazardous wastes where the wastes are legally defined as or considered to be hazardous wastes only:
(a) By the State of export, the requirements of paragraph 8 of this Article that apply to the importer or disposer and the State of import shall apply **mutatis mutandis** to the exporter and State of export, respectively;

(b) By the Party of import, or by the States of import and transit which are Parties to this Convention, the requirements of paragraphs 1, 3, 4 and 6 of this Article that apply to the exporter and State of export shall apply **mutatis mutandis** to the importer or disposer and Party of import, respectively; or

(c) By any State of transit which is a Party to this Convention, the provisions of paragraph 4 of this Article shall apply to such State.

6. The State of export shall use a shipment specific notification even where hazardous wastes having the same physical and chemical characteristics are shipped regularly to the same disposer via the same customs office of entry of the State of import, and in the case of transit, via the same customs office of entry and exit of the State or States of transit; specific notification of each and every shipment shall be required and contain the information in Annex IV A of this Convention.

7. Each Party to this Convention shall limit their points or ports of entry and notify the Secretariat to this effect for distribution to all Contracting Parties. Such points and ports shall be the only ones permitted for the transboundary movement of hazardous wastes.

8. The Parties to this Convention shall require that each person who takes charge of a transboundary movement of hazardous wastes sign the movement document either upon delivery or receipt of the wastes in question. They shall also require that the disposer inform both the exporter and the competent authority of the State of export of receipt by the disposer of the wastes in question and, in due course, of the completion of disposal as specified in the notification. If no such information is received within the State of export, the competent authority of the State of export or the exporter shall so notify the State of import.

9. The notification and response required by this Article shall be transmitted to the competent authority of the State concerned.
10. Any transboundary movement of hazardous wastes shall be covered by insurance, bond or other guarantee as may be required by the State of import, or any state of transit which is a Party to this Convention.

Article 7

Transboundary Movement from a Party through States which are not Parties

Paragraph 2 and 4 of Article 6 of this Convention shall apply mutatis mutandis to transboundary movements of hazardous wastes from a Party through a State or States which are not Parties.

Article 8

Duty to Re-import

When a transboundary movement of hazardous wastes to which the consent of the States concerned has been given, subject to the provisions of this Convention, cannot be completed in accordance with the terms of the contract, the State of export shall ensure that the wastes in question are taken back into the State of export, by the exporter, if alternative arrangements cannot be made for their disposal in an environmentally sound manner within a maximum of 90 days from the time that the importing State informed the State of export and the Secretariat. To this end, the State of export and any State of transit shall not oppose, hinder or prevent the return of those waste to the State of export.

Article 9

Illegal traffic

1. For the purpose of this Convention, any transboundary movement of hazardous wastes under the following situations shall be deemed to be illegal traffic:

   (a) if carried out without notification, pursuant to the provisions of this Convention, to all States concerned; or
(b) if carried out without the consent, pursuant to the provisions of this Convention, of a State concerned; or

(c) if consent is obtained from States concerned through falsification, misrepresentation or fraud; or

(d) if it does not conform in a material way with the documents; or

(e) if it results in deliberate disposal of hazardous wastes in contravention of this Convention and of general principles of international law.

2. Each Party shall introduce appropriate national legislation for imposing criminal penalties on all persons who have planned, carried out, or assisted in such illegal imports. Such penalties shall be sufficiently high to both punish and deter such conduct.

3. In case of a transboundary movement of hazardous wastes deemed to be illegal traffic as the result of conduct on the part of the exporter or generator, the State of export shall ensure that the wastes in question are taken back by the exporter or generator or if necessary by itself into the State of export, within 30 days from the time the State of export has been informed about the illegal traffic. To this end the States concerned shall not oppose, hinder or prevent the return of those wastes to the State of export and appropriate legal action shall be taken against the contravenor(s).

4. In the case of a transboundary movement of hazardous wastes deemed to be illegal traffic as the result of conduct on the part of the importer or disposer, the State of import shall ensure that the wastes in question are returned to the exporter by the importer and that legal proceedings according to the provisions of this Convention are taken against the contravenor(s).

Article 10

Intra-African Co-operation

1. The Parties to this Convention shall co-operate with one another and with relevant African organizations, to improve and achieve the environmentally sound management of hazardous wastes.
2. To this end, the Parties shall:

(a) Make available information, whether on a bilateral or multilateral basis, with a view to promoting clean production methods and the environmentally sound management of hazardous wastes, including harmonization of technical standards and practices for the adequate management of hazardous wastes;

(b) Co-operate in monitoring the effects of the management of hazardous wastes on human health and the environment;

(c) Co-operate, subject to their national laws, regulations and policies, in the development and implementation of new environmentally sound clean production technologies and the improvement of existing technologies with a view to eliminating, as far as practicable, the generation of hazardous wastes and achieving more effective and efficient methods of ensuring their management in an environmentally sound manner, including the study of the economic, social and environmental effects of the adoption of such new and improved technologies;

(d) Co-operate actively, subject to their national laws, regulations and policies, in the transfer of technology and management systems related to the environmentally sound management of hazardous wastes. They shall also co-operate in developing the technical capacity among Parties, especially those which may need and request technical assistance in this field;

(e) Co-operate in developing appropriate technical guidelines and/or codes of practice;

(f) Co-operate in the exchange and dissemination of information on the movement of hazardous wastes in conformity with Article 13 of this Convention.

Article 11

International Co-operation
Bilateral, Multilateral and Regional Agreements

1. Parties to this Convention may enter into bilateral, multilateral, or regional agreements or arrangements regarding the transboundary movement and management of hazardous wastes generated in Africa with Parties or non-
Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are no less environmentally sound than those provided for by this Convention.

2. Parties shall notify the Secretariat of any bilateral, multilateral or regional agreements or arrangements referred to in paragraph 1 of this Article and those which they have entered into prior to the entry into force of this Convention for them, for the purpose of controlling transboundary movements of hazardous wastes which take place entirely among the Parties to such agreements. The provisions of this Convention shall not affect transboundary movements of hazardous wastes generated in Africa which take place pursuant to such agreements provided that such agreements are compatible with the environmentally sound management of hazardous wastes as required by this Convention.

3. Each Contracting Party shall prohibit vessels flying its flag or aircraft registered in its territory from carrying out activities in contravention of this Convention.

4. Parties shall use appropriate measures to promote South-South co-operation in the implementation of this Convention.

5. Taking into account the needs of developing countries, co-operation between international organizations is encouraged in order to promote, among other things, public awareness, the development of rational management of hazardous waste, and the adoption of new and non/less polluting technologies.

Article 12
Liabilities and Compensation

1. The Conference of Parties shall set up an Ad Hoc expert organ to prepare a draft Protocol setting out appropriate rules and procedures in the field of liabilities and compensation for damage resulting from the transboundary movement of hazardous wastes.
Article 13

Transmission of Information

1. The Parties shall ensure that in the case of an accident occurring during the transboundary movement of hazardous wastes or their disposal which is likely to present risks to human health and the environment in other States, those States are immediately informed.

2. The States shall inform each other, through the Secretariat, of:

   (a) Changes regarding the designation of competent authorities and/or focal points, pursuant to Article 5 of this Convention;

   (b) Changes in their national definition of hazardous wastes, pursuant to Article 3 of this Convention;

   (c) Decisions made by them to limit or ban the import of hazardous wastes;

   (d) Any other information required pursuant to paragraph 4 of this Article.

3. The Parties, consistent with national laws and regulations, final set up information collection and dissemination mechanisms on hazardous wastes. They shall transmit such information through the Secretariat, to the Conference of the Parties established under Article 15 of this Convention, before the end of each calendar year, in a report on the previous calendar year, containing the following information:

   (a) Competent authorities, Dumpwatch, and focal points that have been designated by them pursuant to Article 5 of this Convention;

   (b) Information regarding transboundary movements of hazardous wastes in which they have been involved, including:

      (i) The quantity of hazardous wastes exported, their category, characteristics, destination, any transit country and disposal method as stated in the notification;

      (ii) The amount of hazardous wastes imported, their category, characteristics, origin, and disposal methods;
(iii) Disposals which did not proceed as intended;

(iv) Efforts to achieve a reduction of the amount of hazardous wastes subject to transboundary movement;

(c) Information on the measures adopted by them in the implementation of this Convention;

(d) Information on available qualified statistics - which have been compiled by them on the effects on human health and the environment of the generation, transportation, and disposal of hazardous wastes - as part of the information required in conformity with Article 4 Section 3 (a) of this Convention;

(e) Information concerning bilateral, multilateral and regional agreements and arrangements entered into pursuant to Article 11 of this Convention;

(f) Information on accidents occurring during the transboundary movements, treatment and disposal of hazardous wastes and on the measures undertaken to deal with them;

(g) Information on treatment and disposal options operated within the area under their national jurisdiction;

(h) Information on measures undertaken for the development of clean production methods, including clean production technologies, for the reduction and/or elimination of the production of hazardous wastes; and

(i) Such other matters as the Conference of the Parties shall deem relevant.

4. The Parties, consistent with national laws and regulations, shall ensure that copies of each notification concerning any given transboundary movement of hazardous wastes, and the response to it, are sent to the Secretariat.
Article 14

Financial Aspects

1. The regular budget of the Conference of Parties, as required in Article 15 and 16 of this Convention, shall be prepared by the Secretariat and approved by the Conference.

2. Parties shall, at the first meeting of the Conference of the Parties, agree on a scale of contributions to the recurrent budget of the Secretariat.

3. The Parties shall also consider the establishment of a revolving fund to assist, on an interim basis, in case of emergency situations to minimize damage from disasters or accidents arising from transboundary movements of hazardous wastes or during the disposal of such wastes.

4. The Parties agree that, according to the specific needs of different regions and sub-regions, regional or sub-regional centers for training and technology transfers regarding the management of hazardous wastes and the minimization of their generation should be established, as well as appropriate funding mechanisms of a voluntary nature.

Article 15

Conference of the Parties

1. A Conference of the Parties, made up of Ministers having the environment as their mandate, is hereby established. The first meeting of the Conference of the Parties shall be convened by the Secretary-General of the OAU not later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting.

2. The Conference of the Parties to this Convention shall adopt Rules of Procedure for itself and for any subsidiary body it may establish, as well as financial rules to determine in particular the financial participation of the Parties to this Convention.

3. The Parties to this Convention at their first meeting shall consider any additional measures needed to assist them in fulfilling their responsibilities with respect to the
protection and the preservation of the marine and inland waters environments in the context of this Convention.

4. The Conference of the Parties shall keep under continued review and evaluation the effective implementation of this Convention, and in addition, shall:

(a) promote the harmonization of appropriate policies, strategies and measures for minimizing harm to human health and the environment by hazardous wastes;

(b) consider and adopt amendments to this Convention and its annexes, taking into consideration, inter alia, available scientific, technical, economic and environmental information;

(c) consider and undertake any additional action that may be required for the achievement of the purpose of this Convention in the light of experience gained in its operation and in the operation of the agreements and arrangements envisaged in Article 11 of this Convention;

(d) consider and adopt protocols as required:

(e) establish such subsidiary bodies as are deemed necessary for the implementation of this Convention; and

(f) make decisions for the peaceful settlement of disputes arising from the transboundary movement of hazardous wastes, if need be, according to international law.

5. Organizations may be represented as observers at meetings of the Conference of the Parties. Any body or agency, whether national or international, governmental or non-governmental qualified in fields relating to hazardous wastes which informed the Secretariat, may be represented as an observer at meeting of the Conference of the Parties. The admission participation of observers shall be subject to the rules procedure adopted by the Conference of the Parties.
Article 16

Secretariat

1. The functions of the Secretariat shall be:

(a) To arrange for, and service, meetings provided for Article 15 and 17 of this Convention;

(b) To prepare and transmit reports based upon information received in accordance with Articles 3, 4, 6, 11, and 15 of this Convention as well as upon information derived from meetings of subsidiary bodies established under Article 15 of this Convention as well as upon, appropriate information provided by relevant inter governmental and non-governmental entities;

(c) To prepare reports on its activities carried out in implementation of its functions under this Convention and present them to the Conference of the Parties;

(d) To ensure the necessary co-ordination with relevant international bodies, and in particular to enter into administrative and contractual arrangements as may be required for the effective discharge of its functions;

(e) To communicate with focal points, competent authorities and Dumpwatch established by the Parties in accordance with Article 5 of this Convention as well as appropriate inter-governmental and non-governmental organizations which may provide assistance in the implementation of the Convention;

(f) To compile information concerning approved national size and facilities of Parties to this Convention available to the disposal and treatment of their hazardous wastes to circulate this information;

(g) To receive and convey information from and to Parties on:

- sources of technical assistance and training;
- available technical and scientific know-how;
- sources of advice and expertise; and
- availability of resources;
This information will assist them in,
- the management of the notification system of this Convention;
- the management of hazardous wastes;
- environmentally sound clean production methods relating to hazardous wastes, such as clean production technologies;
- the assessment of disposal capabilities and sites;
- the monitoring of hazardous wastes; and
- emergency responses;

(h) To provide Parties to this Convention with information on consultants or consulting firms having the necessary technical competence in the field, which can assist them with examining a notification for a transboundary movement, the concurrence of a shipment of hazardous wastes with the relevant notification, and/or whether the proposed disposal facilities for hazardous wastes are environmentally sound, when they have reason to believe that the wastes in question will not be managed in an environmentally sound manner. Any such examinations would not be at the expense of the Secretariat;

(i) To assist Parties to this Convention in their identification of cases of illegal traffic and to circulate immediately to the Parties concerned any information it has received regarding illegal traffic;

(j) To co-operate with Parties to this Convention and with relevant and competent international organizations and agencies in the provision of experts and equipment for the purpose of rapid assistance to States in the event of an emergency situation; and

(k) To perform such other functions relevant to the purposes of this Convention as may be determined by the Conference of the Parties to this Convention.

2. The Secretariat's functions shall be carried out on an interim basis by the Organization of African Unity (OAU) jointly with the United Nations Economic Commission for Africa (ECA) until the completion of the first meeting of the Conference of the Parties held pursuant to Article 15 of this Convention. At this meeting, the Conference of the Parties shall also evaluate the implementation by the
interim Secretariat of the functions assigned to it, in particular under paragraph 1 above, and decide upon the structures appropriate for those functions.

Article 17

Amendment of the Convention and of Protocols

1. Any Party may propose amendments to this Convention and any Party to a Protocol may propose amendments to that Protocol. Such amendments shall take due account, inter alia, of relevant scientific, technical, environmental and social considerations.

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any Protocol shall be adopted at a meeting of the Parties to the Protocol in question. The text of any proposed amendment to this Convention or to any Protocol, except as may otherwise be provided in such Protocol, shall be communicated to the Parties by the Secretariat at least six months before the meeting at which it is proposed for adoption. The Secretariat shall also communicate proposed amendments to the Signatories to this Convention for their information.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall, as a last resort, be adopted by a two-thirds majority vote of the Parties present and voting at the meeting. It shall then be submitted by the Depository to all Parties for ratification, approval, formal confirmation or acceptance.

Amendment of Protocols to this Convention

4. The procedure specified in paragraph 3 above shall apply to amendments to any protocol, except that a two-thirds majority of the Parties to that Protocol present and voting at the meeting shall suffice for their adoption.

General Provisions

5. Instruments of ratification, approval, formal confirmation or acceptance of amendments shall be deposited with the Depository. Amendments adopted in accordance with paragraph 3 or 4 above shall enter into force between Parties having accepted them, on the ninetieth day after the receipt by the Depository of the instrument of ratification,
approval, formal confirmation or acceptance by at least two-thirds of the Parties who accepted the amendments to the Protocol concerned, except as may otherwise be provided in such Protocol. The amendments shall enter into force for any other Party on the nineteenth day after that Party deposits its instrument of ratification, approval, formal confirmation or acceptance of the amendments.

6. For the purpose of this Article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

Article 18

Adoption and Amendment of Annexes

1. The annexes to this Convention or to any Protocol shall form an integral part of this Convention or of such Protocol, as the case may be and, unless expressly provided otherwise, a reference to this Convention or its Protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to scientific, technical and administrative matters.

2. Except as may be otherwise provided in any Protocol with respect to its annexes, the following procedures shall apply to the proposal, adoption and entry into force of additional annexes to this Convention or of annexes to a protocol:

(a) Annexes to this Convention and its Protocols shall be proposed and adopted according to the procedure laid down in Article 17, paragraphs 1, 2, 3, and 4 of this Convention;

(b) Any Party that is unable to accept an additional annex to this Convention or an annex to any Protocol to which it is Party shall 60 days notify the Depository, in writing, within six months from the date of the communication of the adoption by the Depository. The Depository shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for a previous declaration of objection and the annexes shall thereafter enter into force for that Party;

(c) Upon the expiration of six months from the date of the circulation of the communication by the Depository, the annex shall become effective for all Parties to this Convention or to any Protocol
concerned, which have not submitted a notification in accordance with the provision of sub-paragraph (b) above.

3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any Protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to a Protocol. Annexes and amendments thereto shall take due account, inter alia, of relevant scientific and technical considerations.

4. If an additional annex or an amendment to an annex involves an amendment to this Convention or to any Protocol, the additional annex or amended annex shall not enter into force until such time as the amendment to this Convention or to the Protocol enters into force.

Article 19
Verification

Any Party which has reason to believe that another Party is acting or has acted in breach of its obligations under this Convention must inform the Secretariat thereof, and in such an event, shall simultaneously and immediately inform, directly or through the Secretariat, the Party against whom the allegations are made. The Secretariat shall carry out a verification of the substance of the allegation and submit a report thereof to all the Parties to this Convention.

Article 20
Settlement of Disputes

1. In case of dispute between Parties as to the interpretation or application of, or compliance with, this Convention or any Protocol thereto, the Parties shall seek a settlement of the dispute through negotiations or any other peaceful means of their own choice.

2. If the Parties concerned cannot settle their dispute as provided in paragraph 1 of this Article, the dispute shall be submitted either to an Ad Hoc organ set up by the Conference for this purpose, or to the International Court of Justice.
3. The conduct of arbitration of disputes between Parties by the Ad Hoc organ provided for in paragraph 2 of this Article shall be as provided in Annex V of this Convention.

Article 21

Signature

This Convention shall be open for signature by Member States of the OAU in Bamako and Addis Ababa for a period of six months from 30 January 1991 to 31 July 1991.

Article 22

Ratification, Acceptance, Formal Confirmation or Approval

1. This Convention shall be subject to ratification, acceptance, formal confirmation, or approval by Member States of the OAU. Instruments of ratification, acceptance, formal confirmation, or approval shall be deposited with the Depository.

2. Parties shall be bound by all obligations of this Convention.

Article 23

Accession

This Convention shall be open for accession by Member States of the OAU from the day after the date on which the Convention is closed for signature. The instruments of accession shall be deposited with the Depositary.

Article 24

Right to Vote

Each Contracting Party to this Convention shall have one vote.
Article 25
Entry into Force

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the tenth instrument of ratification from Parties signatory to this Convention.

2. For each State which ratifies this Convention or accedes thereto after the date of the deposit of the tenth instrument of ratification, it shall enter into force on the ninetieth day after the date of deposit by such State of its instrument of accession or ratification.

Article 26
Reservations and Declarations

1. No reservations or exception may be made to this Convention.

2. Paragraph 1 of this Article does not preclude a State when signing, ratifying, or acceding to this Convention, from making declarations or statements, however phrased or named, with a view, inter alia, to the harmonization of its laws and regulations with the provisions of this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effects of the provisions of the Convention in their application to that State.

Article 27
Withdrawal

1. At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depository.

2. Withdrawal shall be effective one year after receipt of notification by the Depository, or on such later date as may be specified in the notification.

3. Withdrawal shall not exempt the withdrawing Party from fulfilling any obligations it might have incurred under this Convention.
Article 28

 Depository

The Secretary-General of the Organization of African Unity shall be the Depository for this Convention and of any Protocol thereto.

Article 29

 Registration

This Convention, as soon as it enters into force, shall be registered with the Secretary-General of the United Nations Organization (UNO) in conformity with Article 102 of the Charter of the UNO.

Article 30

 Authentic Texts

The Arabic, English, French and Portuguese texts of this Convention are equally authentic.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

Adopted in Bamako, Mali, on 30 January 1991.

CATEGORIES OF WASTES WHICH ARE HAZARDOUS WASTES

Waste Streams:

YO All wastes containing or contaminated by radionuclides, the concentration or properties of which result from human activity

Y1 Clinical wastes from medical care in hospitals, medical centers and clinics
Y2 Wastes from the production and preparation of pharmaceutical products
Y3 Waste pharmaceuticals, drugs and medicines
Y4 Wastes from the production, formulation and use of biocides and phytopharmaceuticals
Y5 Wastes from the manufacture, formulation and use of wood preserving chemicals
Y6 Wastes from the production, formulation and use of organic solvents
Y7 Wastes from heat treatment and tempering operations containing cyanides
Y8 Waste mineral oils unfit for their originally intended use
Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions
Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment
Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
Y15 Wastes of an explosive nature not subject to other legislation
Y16 Wastes from production, formulation and use of photographic chemicals and processing materials
Y17 Wastes resulting from surface treatment of metals and plastics
Residues arising from industrial waste disposal operations

Wastes collected from households, including sewage and sewage sludges

Residues arising from the incineration of household wastes

Wastes having as constituents:

- Metal carbonyls
- Beryllium; beryllium compounds
- Hexavalent chromium compounds
- Copper compounds
- Zinc compounds
- Arsenic; arsenic compounds
- Selenium; selenium compounds
- Cadmium; cadmium compounds
- Antimony; antimony compounds
- Tellurium; tellurium compounds
- Mercury; mercury compounds
- Thallium; thallium compounds
- Lead; lead compounds
- Inorganic fluorine compounds excluding calcium fluoride
- Inorganic cyanides
- Acidic solutions or acids in solid form
- Basic solutions or bases in solid form
- Asbestos (dust and fibres)
- Organic phosphorous compounds
- Organic cyanides
Y39 Phenols; phenol compounds including chlorophenols
Y40 Ethers
Y41 Halogenated organic solvents
Y42 Organic solvents excluding halogenated solvents
Y43 Any congener of polychlorinated dibenzo-furan
Y44 Any congener of polychlorinated dibenzo-p-dioxin
Y45 Organohalogen compounds other than substances referred to in this Annex (e.g., Y39, Y41, Y42, Y43, Y44).

ANNEX II
LIST OF HAZARDOUS CHARACTERISTICS

<table>
<thead>
<tr>
<th>UN Class*</th>
<th>Code</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H1</td>
<td>Explosive</td>
</tr>
</tbody>
</table>

An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction or producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.

3 H3 Flammable liquids

The word flammable has the same meaning as "inflammable." Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapor at temperatures of not more than 60.5 degrees C, closed-cup test, or not more than 65.6 degrees C, open-cup test. (Since the results of open-cup tests and of closed cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such
difference would be within the spirit of this definition).


4.1 H4.1 Flammable solids

Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.

4.2 H4.2 Substances or wastes liable to spontaneous combustion

Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.

4.3 H4.3 Substances or wastes which, in contact with water emit flammable gases

Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.

5.1 H5.1 Oxidizing

Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen, cause or contribute to the combustion of other materials.

5.2 H5.2 Organic peroxides

Organic substances or wastes which contain the bivalent-0-0-structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.

6.1 H6.1 Poisonous (Acute)

Substances or wastes liable either to cause death or serious injury or to harm human
health if swallowed or inhaled or by skin contact.

6.2 H6.2 Infectious substances
Substances or wastes containing viable microorganisms or their toxins which are known or suspected to cause disease in animals or humans.

8 H8 Corrosives
Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.

9 H10 Liberation of toxic gases in contact with air or water

9 H11 Toxic (Delayed or chronic)
Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.

9 H12 Ecotoxic
Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.

9 H13 Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

ANNEX III
DISPOSAL OPERATIONS

D1 Deposit into or onto land (e.g., landfill, etc.)

D2 Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)
D3 Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)

D4 Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds, or lagoons, etc.)

D5 Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)

D6 Release into a water body except seas/oceans

D7 Release into seas/oceans including sea-bed insertion

D8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Annex III

D9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Annex III, (e.g. evaporation, drying, calcination, neutralisation, precipitation, etc.)

D10 Incineration on land

D11 Incineration at sea

D12 Permanent storage, -(e.g., emplacement of containers in a mine, etc.)

D13 Blending or mixing prior to submission to any of the operations in Annex III

D14 Repackaging prior to submission to any of the operations in Annex III

D15 Storage pending any of the operations in Annex III

D16 Use as a fuel (other than in direct incineration) or other means to generate energy

D17 Solvent reclamation/regeneration
D18 Recycling/reclamation of organic substances which are not used as solvents
D19 Recycling/reclamation of metals and metal compounds
D20 Recycling/reclamation of other inorganic materials
D21 Regeneration of acids and bases
D22 Recovery of components used for pollution abatement
D23 Recovery of components from catalysts
D24 Used oil re-refining or other reuses of previously used oil
D25 Land treatment resulting in benefit to agriculture or ecological improvement
D26 Uses of residual materials obtained from any of the operations numbered D1-D25
D27 Exchange of wastes for submission to any of the operations numbered D1-D26
D28 Accumulation of material intended for any operation in Annex III

ANNEX IV
INFORMATION TO BE PROVIDED ON NOTIFICATION

1. Reason for waste export.
2. Exporter of the waste 1/
3. Generator(s) of the waste and site of generation 1/
4. Importer and Disposer of the waste and actual site of disposal 1/
5. Intended carrier(s) of the waste and actual site of disposal 1/
   Competent authority 2/
7. Countries of transit.
   Competent authority 2/
9. Projected date of shipment and period of time over which waste is to be exported and proposed itinerary (including point of entry and exit).

10. Means of transport envisaged (road, rail, sea, air, inland waters).

11. Information relating to insurance 3/

12. Designation and physical description of the waste including Y number and UN number and its composition 4/ and information on any special handling requirements including emergency provisions in case of accidents.

13. Type of packaging envisaged (e.g., bulk, drummer, tanker).

14. Estimated quantity in weight/volume

15. Process by which the waste is generated 5/

16. Waste classification from Annex II: Hazardous characteristics, H number, and UN class

17. Method of disposal as per Annex III.

18. Declaration by the generator and exporter that the information is correct.

19. Information transmitted (including technical description of the plant) to the exporter or generator from the disposer of the waste upon which the latter has based his assessment that there was no reason to believe that the wastes will not be managed in an environmentally sound manner in accordance with the laws and regulations of the country of import.

20. Information concerning the contract between the exporter and disposer.

Notes

1/ Full name and address, telephone, telex or telefax number and the name, address, telephone, telex, or telefax number of the person to be contacted.

2/ Full name and address, telephone, telex or telefax number.
3/ Information to be provided on relevant insurance requirements and how they are met by exporter, carrier, and disposer.

4/ The nature and the concentration of the most hazardous components, in terms of toxicity and other dangers presented by the waste both in handling and in relation to the proposed disposal method.

5/ Insofar as this is necessary to assess the hazard and determine the appropriateness of the proposed disposal operation.

ANNEX IV B

INFORMATION TO BE PROVIDED ON THE MOVEMENT DOCUMENT

1. Exporter of the waste 1/

2. Generator(s) of the waste and site of generation 1/

3. Disposer of the waste and actual site of disposal 1/

4. Carrier(s) of the waste 1/ or his agent(s)

5. The date the transboundary movement started and date(s) and signature on receipt by each person who takes charge of the waste

6. Means of transport (road, rail, inland waterway, sea, air) including countries of export, transit and import, also point of entry and exit where these have been designated

7. General description of the waste (physical state, proper UN shipping name and class, UN number, Y number and H number as applicable)

8. Information on special handling requirements including emergency provisions in case of accidents

9. Type and number of packages

10. Quantity in weight/volume

11. Declaration by the generator or exporter that the information is correct

12. Declaration by the generator or exporter indicating no objection from the competent authorities of all States
concerned

13. Certification by disposer of receipt at designated
disposal facility and indication of method of disposal
and of the appropriate date of disposal.

Notes

The information required on the movement document shall
where possible be integrated into one document with that
required under transport rules. Where this is not
possible, the information should complement rather than
duplicate that required under the transport rules. The
movement document shall carry instructions as to who is to
provide information and fill-out any form.

1/ Full name and address, telephone, telex or telefax
number and the name, address, telephone, telex or
telefax number of the person to be contacted in case of
emergency.

ANNEX V

ARBITRATION

Article 1

Unless the agreement referred to in Article 20 of the
Convention provides otherwise, the arbitration procedure
shall be conducted in accordance with Articles 2 to 10
below.

Article 2

The claimant Party shall notify the Secretariat that the
Parties have agreed to submit the dispute to arbitration
pursuant to paragraph 1 or paragraph 2 of Article 20 of this
Convention and include, in particular, the Articles of the
Convention, and the interpretation or application of which
are at issue. The Secretariat shall forward the information
thus received to all Parties to the Convention.

Article 3

The arbitral tribunal shall consist of three members. Each
of the Parties to the dispute shall appoint an arbitrator,
and the two arbitrators appointed shall designate by common agreement the third arbitrator, who shall be the chairman of the tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his usual place of residence in one of the Parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

Article 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Secretary-General of the OAU shall, at the request of either Party, designate him within a further two months period.

2. If one of the Parties to the dispute does not appoint an arbitrator within two months of the receipt of the request, the other Party may inform the Secretary-General of the OAU who shall designate the chairman of the arbitral tribunal within a further two months period. Upon designation, the chairman of the arbitral tribunal shall request the Party which has not appointed an arbitrator to do so within two months. After such period, he shall inform the Secretary-General of the OAU who shall make this appointment within a further two month's period.

Article 5

1. The arbitral tribunal shall render its decision in accordance with international law and in accordance with the provisions of this Convention.

2. Any arbitral tribunal constituted under the provisions of this Annex shall draw up its own rules of procedure.

Article 6

1. The decisions of the arbitral tribunal both on procedure and on substance, shall be taken by majority vote of its members.

2. The tribunal may take all appropriate measures in order to establish the facts. It may, at the request of one of the Parties, recommend essential interim measures of protection.

3. The Parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.
4. The absence or default of a Party in the dispute shall not constitute an impediment to the proceedings.

Article 7

The tribunal may hear and determine counter-claims arising directly out of the subject-matter of the dispute.

Article 8

Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the Parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the Parties.

Article 9

Any Party that has an interest of a legal nature in the subject matter of the dispute which may be affected by the decision in the case, may intervene in the proceedings with the consent of the tribunal.

Article 10

1. The tribunal shall render its award within five months of the date on which it is established unless it finds it necessary to extend the time-limit for a period which should not exceed five months.

2. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon the Parties to the dispute.

3. Any dispute which may arise between the Parties concerning the interpretation or execution of the award may be submitted by either Party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another tribunal constituted for this purpose in the same manner as the first.
Adopted by the Conference of Environment Ministers at Bamako, Mali, 30 January 1991

ALGERIA
ANGOLA
BENIN
BOTSWANA
BURKINA FASO
BURUNDI
CAMEROON
CAPE VERDE
CENTRAL AFRICAN REPUBLIC
CHAD
COMOROS
CONGO
COTE D'IVOIRE
DJIBOUTI
EGYPT
EQUATORIAL GUINEA
ETHIOPIA
GABON
GAMBIA
GHANA
GUINEA
GUINEA BISSAV
KENYA
LESOTHO
LIBERIA
SOCIALIST PEOPLE'S LIBYAN ARAB JAMAHIRIYA

MADAGASCAR
MALAWI
MALI
MAURITANIA
MAURITIUS
MOZAMBIQUE
NAMIBIA
NIGER
NIGERIA
RWANDA
SAHRAWI ARAB DEM. REPUBLIC
SAO TOME AND PRINCIPE
SENEGAL
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