Seventh Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its related protocols

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PREVENTING THE TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTES IN THE MEDITERRANEAN REGION

Prepared by GREENPEACE INTERNATIONAL

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1. INTRODUCTION

The problems related to the transboundary movements of hazardous waste in the Mediterranean were first addressed by MAP's Joint Meeting of the Scientific and Technical Committee and the Socio-Economic Committee in June, 1989.

The concerns expressed on that occasion by several delegations were referred to the Sixth Meeting of the Contracting Parties to the Barcelona Convention (October, 1989) which entrusted the Secretariat to:

- prepare an assessment on the movements of hazardous wastes in the Mediterranean, including the carriage of hazardous wastes by ships transiting the Mediterranean sea;

- suggest a mechanism to assist Contracting Parties in monitoring the movements of hazardous wastes in and through the Mediterranean and their disposal;

- prepare, in the light of the assessment, a draft legal instrument or a protocol on the subject applicable to the Mediterranean region.

The available information on the extent of these movements is therefore evaluated in this document with a view to present to the Contracting Parties an assessment on waste trade in the Mediterranean, an overview of relevant national, regional and international agreements on this subject and a recommendation for the establishment of prevention strategies in the region.

2. SOURCE AND SCOPE OF THE PROBLEM

Toxic waste, if left to the free market, follows the path of least resistance. The hazardous by-products of industrialization inevitably move toward those areas with the least political and economic power to refuse them. The economic "gradient" defined by the contrast in disposal costs in different locations causes wastes to move. This "gradient" is determined by many factors including labour costs, land value, etc. But of crucial significance are the costs relative to the differential in comparative environmental protection legislation and liability obligations.

In recent years the public in Western industrialized countries, has begun to rebel against having their land, air and water poisoned by toxic wastes. This rising public furore has forced industrialized countries to adopt increasingly strict and costly regulations for waste disposal. The legislation has taken the form of absolute bans or phase-outs of certain types of disposal. Examples include; ocean incineration in the North Sea\(^1\) or

\(^1\)The North Sea Declaration of the Third International Conference on the Protection of the North Sea, March 7-8, 1990 states that the practice of ocean incineration will be phased out
landfilling of certain USA wastes, more requirements for environmental protection resulting in higher costs, or strict liability upon generators of wastes for future damages from disposal.

In addition, new, more encompassing definitions of hazardous waste are increasingly being implemented into legislation which require more wastes to be managed. According to Harvey Yakowitz, senior consultant for the environment at the OECD in Paris has stated that the new more encompassing definitions of hazardous wastes which will soon be adopted by the European Community will approximately double the volume of hazardous wastes needed to be "disposed". This will result in a rise in toxic-waste exports to non-EC destinations, according to Yakowitz.3

By the United States Environmental Protection Agency’s (EPA) own admission, there is a lack of hazardous waste treatment capacity in that goliath waste producing country. Despite this, the EPA has banned the landfilling of an increasing list of wastes (83 waste streams as of March 1989).4 This is also the case in the European Community. Recent decisions by the Oslo Commission, Barcelona Convention and the North Sea Ministers Conference have all but banned the use of ocean incineration. In addition, according to the Community Strategy for Waste Management, Brussels, 18 September 1989, the landfilling of many waste streams will be phased out within the Community.5

This lack of "treatment capacity" combined with legal pressure to "properly dispose" of wastes has created immense pressures to export. And the pattern of waste dumping within industrialized countries is repeating itself on a global scale, as waste generators seek to export wastes to those areas most remote and poor.

Meanwhile the door for this unscrupulous trade remains open, as few industrialized countries have sought to prohibit hazardous waste exports. Only Norway and Italy now have even partial export bans. In the past five years, we have seen waste brokers sending ship and trainloads of poisons around the globe in quest of new dumping grounds for the effluent from the world's most affluent

by December 31, 1991 and urgent agreement on that date would be sought in the Oslo Commission.


4HazNews, No. 12, P. 20.

and wasteful countries.

Greenpeace research has revealed that the business of waste trade is global and proliferating. Over 78 non-OECD (Organization for Economic Cooperation and Development) nations have been asked to accept massive quantities of industrial waste from the U.S. and Europe." In a hopeless choice between poverty and poison, these relatively poor countries are often asked to choose between short term economic gain and the long term health of generations of their people. As a result, between 1986 and 1988, over three million tons of wastes were exported from the OECD countries to non-OECD countries."

Not surprisingly, the Mediterranean region with its numerous ports and its location in a sea-trade cross-road of North and South, and East and West geo-political regions, lies at the centre of the international trade in hazardous wastes. Almost every less-industrialized country of the region has at one time or another been targeted as a dumpsite for wastes from the heavily industrialized but highly regulated countries of Western Europe.

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"Ibid."
3. INVENTORY OF WASTE TRADE IN THE MEDITERRANEAN

The following is an inventory of some of the known proposals that have threatened to turn the Mediterranean Region into a dumping ground for hazardous wastes. All proposals will be listed by Date, Type of Waste, Source Countries, Exporting party, Pretext or Fate for export and Current Status.

3.1 ALGERIA

Scheme: ECO Recycling
Date: August 1988
Type of Waste: PCB contaminated oils etc.
Source: Austria
Exporter: ECO Recycling
Pretext/Fate: Unknown
Status: Unclear

In August 1988, 73 barrels of waste containing PCB contaminated transformer oils, which were illegally stored by the waste hauling firm, Fritsch, near Linz, (Austria), were shipped to Re-Chem in the United Kingdom by the Austrian company OSTAB. The West German government did not allow the passage through West Germany, so the shipment from the illegal storage site near Linz listed Algeria as the intended destination. According to the Oberoesterreichische Nachrichten of 12 December 1988, the barrels never arrived in Great Britain. It is unknown if the waste ever ended up in Algeria. The Austrian waste exporters were ECO Recycling of Kottingbrunn, Austria.  

3.2 CYPRUS

In 1989, the Cypriot authorities were put on "red alert" by the Police Department following information received through INTERPOL, on the movement of ships with "toxic wastes" in the sea area of Cyprus. The Fisheries Department carried out regular aerial patrols from June through September, logging a total of 120 hours of air time covering a distance of 40 miles off shore. The Cypriot Fisheries Department was especially concerned because of a strange phenomenon affecting the fish species called Grouper which were found floating dead on much of the sea-surface around Cyprus. No answer was ever found to the mysterious floating Grouper. Floating Grouper has also been registered washing up in Malta, Tunisia, and Algeria. None of these countries has ever pin-pointed the reason for this strange phenomenon.  

3.3 FRANCE

Officially, France imports 250,000 to 300,000 tonnes a year of

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8Greenpeace Austria
9Greenpeace Mediterranean Project
industrial waste and 1 million tonnes of domestic waste. Domestic waste importation is not regulated. Hazardous waste imports have been controlled since 1983.

In 1987 and 1988, 75% of the waste dumped in Class 1 landfills or incinerators (for special wastes), were imported wastes. In 1989, this percentage dropped to 30% due to decreasing capacity for domestically produced wastes.

Imports in France - 1987

<table>
<thead>
<tr>
<th>Country</th>
<th>Tonne</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Germany</td>
<td>109,827</td>
</tr>
<tr>
<td>Belgium</td>
<td>61,735</td>
</tr>
<tr>
<td>Netherlands</td>
<td>45,830</td>
</tr>
<tr>
<td>Switzerland</td>
<td>19,641</td>
</tr>
<tr>
<td>Spain</td>
<td>5,149</td>
</tr>
<tr>
<td>Italy</td>
<td>5,070</td>
</tr>
<tr>
<td>Rumania</td>
<td>675</td>
</tr>
<tr>
<td>Ireland</td>
<td>257</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>156</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>249,340</strong></td>
</tr>
</tbody>
</table>

* In 1986, France imported 827,318 tonnes of hazardous wastes from West Germany, which is one-sixth of the total annual production of regulated hazardous wastes in West Germany.\(^{11}\)

* According to the French Greens of Lille, through the course of two years, one million tonnes of hazardous industrial wastes were shipped illegally to France, hidden under West German and Dutch solid waste.


\(^{11}\)Bundestag, Drucksache No. 11/2075, April 18, 1988.
The wastes included mercury-contaminated and cadmium-contaminated substances and have been used, for example, as road bed material for motor ways.\textsuperscript{12}

* Over a million metric tonnes of hazardous wastes from Belgium, West Germany and the Netherlands have been illegally stored at sites in northern France, according to the French Green Party. The Greens from the Nord-Pas de Calais region released this information on 21 September 1988 after a two-year investigation. According to the Greens, the waste has been able to enter France because authorities were too lenient in requiring proper authorization for imports.\textsuperscript{13}

Waste Trade Schemes:

Scheme: Municipal wastes from West Germany

Date: Since 1986
Type of Waste: Municipal
Source: West Germany
Exporter: Unclear
Pretext/Fate: Incineration and dumping
Status: Active

275,000 tonnes of municipal waste (figure from late 1988) are shipped annually from Baden-Wurttemberg to France. The wastes originate in the regions of Esslingen, Ulm, the Rhein-Neckar-region, Offenburg-Kehl and Baden-Baden. The wastes were shipped to the French regions of Haut-Rhin and Alsace for incineration and to dumps in Lorraine, Champagne and the surroundings of Paris.\textsuperscript{14}

Scheme: Land Saarland

Date: 1986
Type of Waste: Household
Source: West Germany
Exporter: Land Saarland
Pretext/Fate: Dumping
Status: Actual

In 1986, the Land Saarland exported 290,000 tonnes of solid waste to France.\textsuperscript{15}

\textsuperscript{12}Reuter, September 16, 1988.

\textsuperscript{13}International Environment Reporter, October 1988.

\textsuperscript{14}Landen Baden-Wurttemberg, Drucksache No. 10/941, 18 January 1989, application by the Ulrich Brinkmann (SPD).

\textsuperscript{15}Deutscher Bundestag, Drucksache No. 11/2075, 18 April 1988.
Scheme: Sarp Industries

Date: 1987  
Type of Waste: Hazardous  
Source: Erieway Inc. (Cleveland, Ohio)  
Exporter: Erieway Inc.  
Importer: Sarp Industries  
Pretext/Fate: Unclear  
Status: Unknown

Sarp Industries of Limay, France, planned to import hazardous wastes from Erieway Inc. of Cleveland, Ohio, but had not received permission from the French government as of November 1987.\textsuperscript{16}

Scheme: Montchanin

Date: 1988  
Type of Waste: Incinerator ash  
Source: Germany  
Exporter: Deblai Servic Environment  
Pretext/Fate: Dumping  
Status: Actual

According to the environmental group Bourgogne Ecologie, dioxin contaminated incinerator ash from an unidentified West German factory was dumped in a landfill in Montchanin, France. The wastes were shipped by the hauling firm, Deblai Servic Environment. The Mayor of Montchanin asked the French Ministry of Industry to investigate this incident.\textsuperscript{17}

The responsible German firms Seifermann and HIM (Hessische Industriemuell) denied the dumping of the dioxin contaminated waste. The spokesperson of the Interessengemeinschaft Niederfreistett (IG), a group of people living on the grounds of the Seifermann company in Rheinau in Baden, Hans Schutz and Bourgogne Ecologie reported that Seifermann had emptied several trucks containing hazardous waste per day on the surface of a pond. The waste is supposed to be liquid hazardous waste that is mixed with sawdust to make it solid. The company is said to accept 100 tonnes per day and to handle between 30,000 and 45,000 tonnes per year.\textsuperscript{18}

According to the Citizens' Group IG Niederfreistett, the Montchanin dump was closed in 1988 and Seifermann stopped hazardous waste treatment and continued to work merely as a hauling company. It is supposed by the IG Niederfreistett that another firm has begun transporting the respective amounts of hazardous wastes to another place in France. The Seifermann waste yard has since been fined and closed.

\textsuperscript{18}Greenpeace Germany; \textit{Die Tageszeitung}, 1988
Scheme: Karin B

Date: August, 1988
Type of Waste: Hazardous
Source: Italy via Nigeria, UK
Exporter: Jelly Wax / Ecomar
Pretext/Fate: Dumping
Status: Rejected

Upon leaving England, the Italian waste-hauling ship, KARIN B, claimed to be headed towards Rotterdam but instead attempted to dock in Le Havre, France, on 31 August 1988. There, as elsewhere in Europe, the vessel was denied entrance. Instead, the vessel anchored 15 miles off the coast near Cherbourg.

For more details about the journey of the Karin B, see Italy

Scheme: Zapro/Van der Voorde

Date: 1988
Type of Waste: Emission control dust
Source: Dusseldorf Incinerator, West Germany
Exporter: Van der Voorde, Zapro
Pretext/Fate: Unclear
Status: Actual, returned

In 1988 the Belgian waste trader Van der Voorde, of the company, Zapro, shipped emission control dust originating from the Dusseldorf incinerator in West Germany to the French firm Sertiru, in Northern France. The French analyzed the wastes and found more heavy metals in it than were found when analyzed in Germany. The firm then rejected the wastes.

About ten of the waste carrying ships have neither been unloaded at Sertiru nor come back to West Germany. Zapro's only comment to this is that it had been necessary "for technical reasons, to divert the ships".

Scheme: Van Balkom I

Date: 1988, 1989
Type of Waste: Car recycling residues
Source: Germany
Exporter: Van Balkom-Seeliger (Heidelberg, West Germany)
Pretext/Fate: Dumping
Status: Actual

The Heidelberg, West Germany-based company Van Balkom-Seeliger carried out a plan to import and incinerate 50,000 tonnes per year of unusable car scraps in Biblisheim, Alsace, France. The car scrap included rubber and plastic residues mixed and electronic scraps. Van Balkom imported an incinerator without

19 Documents obtained by Greenpeace Germany
permission while the wastes were stored on an open field. Van Balkom was subsequently fined for illegal dumping and the facility was closed.

West German authorities had refused to site the incinerator in Heidelberg because of environmental risks.\textsuperscript{20}

Scheme: Sarp Fuel Substitute

Date: 1989
Type of Waste: Fuel substitute
Source: West Germany
Exporter: Weber (Salach, West Germany)
Pretext/Fate: Incineration
Status: Active

Since 9 January 1989, the "fuel substitute", consisting of enamel sludge, waste oil and sawdust, that was returned from Isparta, Turkey to Stuttgart, West Germany, in 1988, has been re-exported to France and incinerated in Limay near Paris. Of the total amount of 1,500 tonnes, 100 tonnes per week are being shipped to France. The French cost for incineration is one-sixth of the German price.

For more details on this "fuel substitute," see Turkey.

Scheme: Breisgau

Date: 1989
Type of Waste: Various
Source: West Germany
Exporter: Unclear
Pretext/Fate: Dumping
Status: Proposed

The region Breisgau-Hochschwarzwald plans to dump 60,000 to 100,000 tonnes annually of solid waste, "harmless" industrial wastes, sewage sludge and wastes from building sites in Langres Department Haute- Marne.\textsuperscript{21}

Scheme: Zurich Municipal Wastes

Date: 1989
Type of Waste: Household
Source: Zurich, Switzerland
Exporter: Unclear
Pretext/Fate: Incineration
Status: Proposed

The city of Zurich plans to ship 10,000 tonnes per year of solid

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\textsuperscript{20} Document obtained by Greenpeace Germany

\textsuperscript{21} Greenpeace Germany
waste for incineration to the municipal incinerator of Maubeuge in Northern France. Maubeuge is located 1,000 km from Zurich.  

Scheme: Canadian PCBs  
Date: 1989  
Type of Waste: PCB contaminated  
Source: Canada  
Exporter: Provirotect  
Pretext/Fate: Unclear  
Status: Actual  

In stark contrast to the protests that were raised in England over the import of PCBs from Canada, the arrival of Canadian PCBs went unnoticed in France. The Quebec Environment Ministry unsuccessfully went to court to prevent the exportation, and the PCB wastes were sent off by the Canadian firm Provirotect in early November 1989. The French shipping company, UAL, handled the cargo transportation.  

Scheme: Van Balkom II  
Date: 1990  
Type of Waste: Car scrap  
Source: West Germany  
Exporter: Van Balkom-Seeliger  
Pretext/Fate: Incineration  
Status: Proposed  

The same Van Balkom scheme that was proposed to Biblisheim, Alsace, was then proposed to the mayor of Bitche, Lorraine, and is still under debate.  

Scheme: Van Balkom III  
Date: 1990  
Type of Waste: Unclear  
Source: West Germany  
Exporter: Van Balkom  
Pretext/Fate: Landfill, road construction, incineration  
Status: Active  

An unknown quantity of the waste material was illegally dumped in the Rhine Harbour of Mannheim, West Germany. After it had burned several times, causing dioxin and heavy metals emissions, the authorities ordered it to be removed. Van Balkom said they would transport it to a garbage landfill near Cattenom, Lorraine, France. But a television team found that the wastes were used for  

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24Greenpeace Germany
road construction. Van Balkom said that the material was burned in a French incinerator.25

3.4 GREECE

Scheme: CBI/Incinerator

Date: March, 1990
Type of Waste: Hazardous
Source: Europe
Exporter: Advanced Technology
Pretext/Fate: Incineration, economies of scale
Status: Rejected

On 13 March 1990, following public protests near the west-central Greek town of Astakos, where a one billion dollar household and hazardous waste incineration plant was proposed, the Greek Environment Ministry issued a statement saying that it "will not allow the establishment of such a unit in Greece by the Chemical Burning Industry (CBI) on the basis of the data we have at present."

Executives of CBI Hellas, an affiliate of the Swiss firm, Advanced Technology, were behind the scheme which, due to the arguments of "economies of scale" (waste must be imported to justify a large and an economic incinerator) was designed to accept unknown quantities of imported wastes. While CBI claimed that their plant would not harm the environment, residents of Astakos insisted that they should not allow their area to become a dump for European toxic waste.

According to Greenpeace informants, as of July 1991, CBI is still actively pursuing their waste importation plans for Greece. However, political analysts have stated that the siting of an incinerator in Greece in the near future is politically risky.26

Scheme: Jelly Wax I

Date: February 1987
Type of Waste: hazardous
Source: Italy
Exporter: Jelly Wax
Pretext/Fate: dumping
Status: actual, returned

(See Italy)

3.5 ISRAEL

25Greenpeace Germany

Scheme: Sommer Metall Gesellschaft

Date: 1989/90
Type of Waste: Aluminum salt slag
Source: Sommer Metall Gesellschaft
Exporer: Sommer Metall Gesellschaft
Pretext/Fate: Recycling, cement production
Status: Rejected

An Israeli government-owned company planned to build a major waste importing facility in an old copper mine in the desert of Negev. The state-owned firm Israel Chemicals Limited proposed to build a major waste processing plant in Timna, to extract aluminum from 100,000 tonnes of salt slags which are generated in the recovery process of used aluminum materials. ICL planned to mix much of the remaining toxic wastes with cement.

The source of the waste is the West German company, Sommer Metall Gesellschaft. This company’s wastes have already been rejected by the United Kingdom and several countries in Africa. In exchange for dealing with the waste, Israel would get some of the recycled aluminum, an undisclosed sum of money, and an estimated 30 or 40 jobs.

The Minister of Finance and the Minister of Industry and Trade, had placed the proposal on their "100 Preferred Projects List," the Ministry of Environment has expressed serious concerns. The Director General of the Ministry of Environment, called for several stringent regulations which has both the Germans and ICL thinking twice about their scheme. If permitted to proceed with their plans, ICL would not only have had to build a bypass road to shuttle the wastes outside the city, but they would also have had to assure the prevention of chemicals being released into the environment and finally ship the remaining toxic residues back to West Germany.

The West Germans refused to take back the wastes, saying that would be too costly, and ICL said it would give up the idea altogether if they had to build the alternative access road.

An Israeli regional council rejected the scheme in late December.

3.6 ITALY

Italy produces between 40 and 50 million tonnes of industrial wastes and 16 million tonnes of household waste each year, much of which is believed to be exported. There are no official figures on the total amount of wastes exported from Italian territory.

Two Italian waste management firms, Servizi Industriali and

27Davar (Trade Union Periodical); Jerusalem Post 18, 19 and 28, October 1989; Die Tageszeitung, Berlin, 20 October 1989; Frankfurter Rassau, 6 November 1989.
Ecodeco, export nearly 50,000 tonnes of wastes to Belgium, East Germany, Finland, France, and the United Kingdom.

The Italian government has launched an investigation to identify all companies involved in illegal dumping in developing countries.

For more information on Italian waste exports, see also the sections on Lebanon and Turkey.

Waste export schemes:

**Scheme: Black Sea Barrels**
- **Date:** Spring 1987
- **Type of Waste:** Hazardous, DDT and PCBs etc.
- **Source:** Italy
- **Exporter:** Sirteco
- **Pretext/Fate:** Incineration, landfill in Rumania
- **Status:** Actual, dumped at sea (see: Turkey)

**Scheme: Jelly Wax I**
- **Date:** February 1987
- **Type of Waste:** Hazardous
- **Source:** Italy
- **Exporter:** Jelly Wax
- **Pretext/Fate:** Dumping
- **Status:** Actual, returned

Italy was the starting point for an elaborate waste trade scheme that involved three separate ships that carried one shipload of 2,200 tonnes of toxic waste to four continents over a 14-month period.

The waste's historic journey began when the Maltese-flagged ship, the **LYNX**, left Italy in February 1987, with 2,200 tonnes of highly toxic wastes collected by an Italian waste trade broker named Jelly Wax. When the ship arrived at its destination of Djibouti, it was prevented from unloading by the Djibouti government because no contractual agreement had been made with the local authorities for disposal of the wastes.

In March 1987, the **LYNX** sailed for Venezuela. Jelly Wax had made an agreement with a Panamanian firm, Mercantil Lemport S.A., which claimed to have a permit for the disposal of toxic wastes in Venezuela. The wastes were unloaded in Puerto Cabello, Venezuela in April 1987, and were left above ground for six months.

In August 1987, the Venezuelan government ordered the removal of the barrels which had begun to leak and were causing harm to nearby residents. Two months later, in October, the **MAKIRI** arrived to remove the wastes. The **MAKIRI** left Venezuela on 17 November 1987, with the wastes on board, but did not return them to Italy as requested by Venezuela.
In December 1987, the MAKIRI dumped the wastes in Tartous, Syria. Jelly Wax paid a Syrian company, Samin, $200,000 for accepting the wastes. The Syrian government ordered Samin to remove the wastes and in February 1988, the wastes were loaded onto another vessel, the Syrian-flag ZANOOBIA, for return to Italy.

The ZANOOBIA stopped in Greece on the way to Italy but was denied permission to unload the hazardous cargo. On 26 April 1988, the vessel arrived at the port of Marina di Carrara -- the same Italian port from which the wastes were exported 14 months earlier. Again permission to unload the cargo was denied because the ship did not have proper permits. Captain Tabalo declared Jelly Wax the owner of the wastes; Jelly Wax claimed the wastes belonged to Samin.

During this time the crew was exposed to leaking hazardous waste and nine crewmembers had to be hospitalized. One crewmember died en route, possibly from contact with the wastes.

In late May the Italian government agreed to take the wastes, but unloading the cargo was delayed when port workers declared a strike in protest of the fumes coming from the so-called "ship of poison," the ZANOOBIA.

The ZANOOBIA was finally unloaded in late 1988 in Genoa.

11,000 barrels of hazardous wastes returned to Italy from Syria aboard the ZANOOBIA were repackaged. 28

An Italian government official who has been carrying out investigations aboard the ZANOOBIA, has identified 70 Italian companies that generated the wastes carried on board. The waste generators include many major chemical production firms, such as Akzo Chemie, Bayer Italia, Ciba Geigy, and ICI.

Residents and authorities of Genoa are anxious to be rid of the ZANOOBIA's wastes. However, Castalia, the Italian firm that is now handling the wastes, is still having problems finding a final disposal site.

Half of the wastes were originally planned to be shipped to the United Kingdom and France, and the rest were to remain in Italy. The first shipment, scheduled for 5 December 1988, was delayed because the wastes were not properly identified. Some of the barrels were marked "PCB" although it had always been affirmed that no PCB-wastes had been on board.

Later, two British waste hauling companies, Collier Company and Etna Waste Disposal, backed out of the contract. The Chairman of the Italian state-owned company Castalia, responsible for unloading the wastes, was not able to satisfactorily explain this. He reportedly had trouble with the people living in the

area of the French waste incinerator, SARP. To date, the only assured waste disposal is that planned for Italy. 5,000 barrels are to be shipped to a plant for waste-oil treatment by the Italian company, Servizi Industriali. After chemical treatment, the wastes will probably be exported to the German dump at Schoenberg.29

Scheme: Jelly Wax / Ecomar

Date: 1988
Type of Waste: Hazardous
Source: Italy
Exporter: Jelly Wax and Ecomar
Pretext/Fate: Dumping
Status: Actual

Between late 1987 and May 1988, almost 4,000 tonnes of toxic wastes from Italy were dumped in Nigeria in an illegal arrangement between Italian businessmen and Nigerian officials. In the tiny delta port of Koko, a Nigerian citizen, Sunday Nana, agreed to rent his backyard to an Italian businessman, Gianfranco Raffaelli, for approximately $100 a month. The property was then used for the storage of 8,000 drums of hazardous wastes, including highly toxic PCBs.

The wastes were exported from the port of Pisa and other Italian ports. The Koko waste disposal scheme was masterminded by Italian businessmen Gianfranco Raffaelli and Renato Pent, who control the waste broker firms, Ecomar and Jelly Wax. The receiving firm was Sunday Nana’s Iruekpen Construction Company. The wastes were imported as substances "relating to the building trade," and as "residual and allied chemicals."

In early June, in response to the dumping, Nigeria recalled its Ambassador from Italy and seized an Italian freighter, the PIAVE, which was not involved in waste trade, in order to pressure Italy to remove the wastes. The Nigerian Ambassador to Italy returned to his post in September 1988. The owners of the PIAVE are demanding $1 million compensation from the Italian government.

As the Koko scandal broke, Raffaelli fled Nigeria but an Italian employee of Iruekpen Construction, Desiderio Perazzi, and at least 54 others involved in the scandal, were jailed by the Nigerian government.

On 17 July, the Italian government agreed to direct the removal of the wastes from Nigeria and return them to Italy. Over 150 Nigerian workers, mostly from the Nigerian Port Authority, were employed in the removal of the wastes. The Nigerian government provided mechanical equipment, protective clothing, and gas masks for the workers, but the quantity of protective clothing was insufficient and many workers did not have gloves to wear. A numbers of workers were hospitalized for ailments including severe chemical burns, nausea, blood vomiting, partial paralysis,

29Greenpeace Italy
and at least one coma.

The Minister of Works and Housing, Brigadier Mamman Kontagora, awarded each worker with a certificate of commendation and a 500 naira (US $107) cash bonus. Minister Kontagora ordered 50,000 naira (US $10,000) worth of drugs and medical equipment for the workers. The senior medical officer at Koko General Hospital, Dr. Solomon Ogbemi, has expressed concern that shortages of blood and ambulances may further complicate the removal operation. The workers were also very concerned and demanded risk allowances, life insurance policies, and regular medical monitoring.

In another demonstration of the toxicity of the Koko dumpsite, Dr Ogbemi reported that seven premature births occurred in the Koko area in one two-week period in July. Residents of Koko, however, rejected plans to evacuate the town.

In late July 1988, two vessels, the KARIN B and the DEEPSEA CARRIER, began the process of returning the wastes dumped in Koko, Nigeria. The vessels were originally bound from Nigeria for Italy, but changed course after local officials in Ravenna, Italy—the proposed disposal site for the wastes—began protesting the disposal plan. The Karin B and its cargo were banned from docking in France, the Netherlands, Spain, the United Kingdom and West Germany (see also France and United Kingdom).

On 2 September 1988, the Italian government announced that it had ordered the KARIN B and the DEEPSEA CARRIER to return to Italy. The two ships had been carrying the Italian wastes which were removed from Koko, Nigeria, in August. Italy’s Environment Minister, Giorgio Ruffolo, said that the Italian Cabinet ordered the return of the waste ships "given the impossibility of having the waste from Nigeria treated at plants in foreign countries". In mid-September, the Environment Minister announced the Italian ports chosen to accept wastes being returned from their illegal dumpsites in Nigeria.

Minister Ruffolo announced that the Tuscan port of Livorno was chosen to accept the KARIN B and either Ravenna or Manfredonia Harbour in the South Adriatic would receive the DEEPSEA CARRIER. The Italian government’s plans to end the toxic odysseys of these two ships failed as local protests at each port town delayed unloading the wastes.

All three ports named as recipients of the Italian wastes had protests, strikes, and blockades to prevent the waste from being unloaded. Eight people were injured in Manfredonia when police clashed with protesters who smashed windows and overturned police cars surrounding the Town Hall. Livorno harbour authorities prohibited the entry of the KARIN B after water samples showed toxics leaking from the ship.

After 50 days at sea with toxic wastes, Captain Hinterleitner and three crew members of the KARIN B were allowed to go ashore on 20 September 1988. Five of the ten crew members had complained of chest and back pain and other ailments caused by exposure to the vessel’s deadly cargo, which was contained in leaking, corroded barrels.
The government hoped to recoup some of the costs once, the producers and exporters of the waste were identified. Minister Ruffolo wanted the responsible companies to pay for all costs associated with the clean-up operations. Thirty-seven Italian companies were summoned to meet with Ruffolo on 29 December 1988 to discuss the claims. The Ministry of the Environment expected to pay $14.3 million for claims on the KARIN B. On 10 October 1988, the two ships were still anchored, the KARIN B outside the port of Livorno, and the DEEPSEA CARRIER off the Sicilian coast.

Workers wearing protective clothing began unloading the KARIN B on 20 December 1988. The 167 containers of waste would be transported to a warehouse for identification before being moved again to a temporary storage site in Emilia Romagna. The first ten containers with repackaged wastes left Livorno on the night of 8 January 1989. There were doubts as to the reliability of the sample analyses. Greenpeace Italy demanded more than once to completely analyze the wastes before temporarily storing them, but the company responsible for analyzing seemed only interested in reloading and shipping the wastes as quickly as possible.

In addition to the wastes being returned from Nigeria, Italy was preparing to accept approximately 8,000 barrels of Italian waste illegally dumped in Lebanon in June 1988. On 15 December 1988, Italy announced that the wastes would be shipped to the Italian port of La Spezia (Liguria). The Mayor, Bruno Monterfiori, agreed to allow the ship to dock if the wastes were identified and the stay in port was limited.

The ship’s cargo included 2,500 tonnes of wastes in 149 containers - 11 of which were considered to be in poor condition when the ship left Koko. The crew had been on-board the ship for eight months with no protective clothing and no equipment to monitor the dangers from the toxic cargo. The wastes aboard the ship were continuously leaking liquid wastes on deck and in the hold.

The DEEPSEA CARRIER was finally unloaded in August 1989. The ship arrived at Livorno harbour in Italy on 28 July 1989, and unloading began three days later. 149 containers of waste were stored in Livorno, and authorities attempted to find a suitable company to accept the wastes for final treatment and disposal.

The Panamanian ship HAI-XIONG, also arrived in Ravenna, Italy, where it unloaded contaminated soil from Koko. Unlike other ships bringing Italy's wastes back home, no protests met the arrival of the HAI-XIONG.30

As of June 1990, the latest word was that the KARIN B wastes and perhaps other stockpiled "scandal" waste would be headed for the Rechem incinerator in Pontypool, Wales, the UK.31

30Greenpeace Italy
31Greenpeace UK
Scheme: Jelly Wax - Radhost

Date: 1988  
Type of Waste: Toxic  
Source: Italy  
Exporter: Jelly Wax  
Pretext/Fate: Dumping  
Status: Actual  

(See: Lebanon)

Scheme: Pro Americana

Date: July, 1989  
Type of Waste: Heavy metal contaminated residue  
Source: Italy, Denmark, Belgium  
Exporter: Euromet Ltd.  
Pretext/Fate: Recycling, micro-nutrients  
Status: Actual, returned

In July, the ship PRO AMERICANA, returned to the Netherlands loaded with 2,000 tonnes of toxic heavy metals waste which it had shipped to Brazil in late June. There government authorities rejected the cargo after having been alerted by Greenpeace in cooperation with local Brazilian environmental groups. The waste originally came from Denmark, Belgium and Italy, and was refused in Brazil on the grounds that Brazil was ill-equipped to deal with the waste in an environmentally sound manner.

The wastes were finally returned to Rotterdam, the same port where they were originally loaded. Marjan van Giezen, spokeswoman for the Dutch Ministry of Environment sought a court order to have the toxic metals wastes removed from the port in Rotterdam and returned to the original owners. Denmark and Belgium initially agreed to take back their shares of the waste: 430 tonnes and 7000 tonnes respectively. Later, however, the Belgians refused to accept the waste saying that it had been mixed with other material and therefore could not truly be said to be theirs. The Italians have also refused to accept their share of the waste. The Dutch firm, Magnus International, a subsidiary of Euromet Ltd. of the UK which masterminded the shipment was forced under threat of fines from the Dutch government, to find alternative disposal. The wastes still sits in storage in Rotterdam although some have been sent to Germany for recycling.  

Scheme: Hospital Wastes to Poland

Date: November 1989  
Type of Waste: Hospital wastes  
Source: Italy

Exporter: De Bartolomeis
Pretext/Fate: Incineration
Status: Rejected

In November 1989, the local press in Firenze, Italy, learned that the local municipal waste authority was negotiating with De Bartolomeis, a waste broker and incinerator builder from Milan, to export 1,300 tonnes of hospital waste to Warsaw, Poland, for incineration. The scheme was confirmed by the Vice-President of the Waste Authority, Mr Fortini. He said a delegation went to Warsaw to visit Polish incinerators.

It should be noted that under Italian law it is illegal to export wastes to any non-OECD countries.

The Polish Embassy had no knowledge of the scheme. The Embassy spokesperson stated that her inquiries with the Minister of the Environment in Poland also revealed his lack of knowledge about the scheme. After the publicity in January, the Municipal authority stated that the deal was off.\(^{33}\)

Waste Import Schemes:

Scheme: Detia / Degesch

Date: 1989
Type of Waste: Highly Toxic
Source: West Germany
Exporter: Detia (Laudenbach, West Germany)
Pretext/Fate: Chemical Weapons Production
Status: Proposed

Detia, a Laudenbach, West Germany, subsidiary of the Frankfurt chemical company Degesch, planned to sell 28 tonnes of methyl bromide to a "Compania Commerciale" in Ozzano-Emilia, Italy.

Methyl bromide is a highly toxic gas. The gas had been liquefied under high pressure and had been put into thousands of little ampules. It originated from US military stocks and was originally intended to be used for the sterilization of clothes and bed linen of soldiers. Shortly after the war, however, and after discovering its detrimental effects on human health, it had been sold to Degesch. Methyl bromide was used as an herbicide and a fungicide for the sterilization of greenhouses and soil until it was forbidden in 1987.

The gas was intended to be shipped to Italy by air. It is suspected by some, that the gas would be shipped as chemical weapons to the Third World. The management of Detia said that the gas could not be used in the production of chemical weapons, however Jurgen Rocklitz, professor of chemistry in Mannheim, West Germany, and MP of the Green Party, said that it already was a chemical weapon and that one ampule alone could kill scores of people.

\(^{33}\)Greenpeace Italy
In January 1989, the West German Foreign Ministry intervened and said that refilling into larger containers, allegedly planned by the Italian company, was not allowed according to Italian regulations.

The deal eventually fell through and the alleged business partner is now in Israel.\(^{34}\)

3.7 LEBANON

Waste Import Schemes:

Scheme: Jelly Wax III - Radhost

Date: 1988
Type of Waste: Hazardous
Source: Italy
Exporter: Jelly Wax
Pretext/Fate: Dumping
Status: Actual

In June 1987, the Italian firm, Jelly Wax, shipped over 2,400 tonnes of toxic wastes on board the Czechoslovakian vessel RADHOST from the Italian port of Marina di Carrara to Puerto Cabello in Venezuela. The ship was rejected in Puerto Cabello.

On 21 September 1987, the RADHOST entered the port of Beirut. A non-existent Lebanese company, Adonis, was paid for unloading the wastes, which were left outside the port of Beirut.

In June 1988, the Lebanese government demanded that the wastes be returned to Italy. The Italian government offered to pay $3,000,000 compensation. The Italian waste disposal firm, Monteco, was supposed to analyze and repackage the wastes and return them to Italy.

In September 1988, the Italian government said that the waste was to be unloaded in the Italian port of La Spezia. The Italian-flagged vessel JOLLY ROSSO headed for Lebanon to take the wastes on board.

However, according to the a Lebanese official attending the UNEP Conference on toxic waste held in Basel (March 1989), only 7,000 of the total of 16,000 barrels had been returned; the rest was "lost in nature", stored in several places in the mountains. He also described how the local inhabitants had unsuspectingly emptied the toxic barrels and stored food in them and showed the delegates photographs of children with cauterized patches of skin. He had been a member of a group of experts that had investigated the wastes for several weeks.\(^{35}\)


\(^{35}\)Greenpeace Germany; Greenpeace Italy; Greenpeace Netherlands; APS Diplomat, 27 June 1988; Riad Kaj, UPI, 18 July 1988; Reuter, 16, 23, 29, June and 2, 11, 14, July 1988; "Toxic

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3.8 MOROCCO

Scheme: S.O.P. (Western Sahara)

Date: June 1987
Type of Waste: Hazardous wastes
Source: Germany
Exporter: Sondermull Organisation und Problemlosung
Pretext/Fate: Landfill
Status: Unclear

On 3 June 1987, a company called Sondermull Organisation und Problemlosung (S.O.P.) of Stuttgart, West Germany, described a waste trade scheme to the Stuttgart regional board which is in charge of licensing waste exports. S.O.P. had hoped to export at least 40,000 tonnes per month of hazardous wastes from companies in the German state of Baden-Wurttemberg.

S.O.P. Manager Otto Blosch admitted to the German Green Party that he hoped to dump the wastes in phosphate mine pits in Western Sahara.

The wastes would have been collected in West Germany by the firm, Schaal and Muller, and shipped to the abandoned mines via ship and train. There, the wastes would have been stored temporarily until sufficient funds could be raised to bury the wastes in landfills.

The three representatives of the regional board raised no concerns about the project, but stated that prior consent of Moroccan authorities was necessary.

Blosch also talked to the Baden-Wurttemberg state environment ministry and met with no opposition.

It was not until the German Green Party published the protocol of a meeting of 6 June 1987, that the Ministry dissociated itself from Blosch and called him untrustworthy.36

Scheme: Allied Technologies

Date: 1987
Type of Waste: Dioxin wastes from Love Canal
Source: USA
Exporter: Allied Technologies
Pretext/Fate: Dumping
Status: Rejected

Wastes to Italy”, Dagens Nyheter (Sweden) 8 June 1988; Voice of Lebanon via BBC, 23 June 1988.

36German Green Party; Stuttgarter Zeitung, 24, 29 June 1988.
According to the New York Department of Environmental Quality, in 1987, the small Maryland firm Allied Technologies, applied to take dioxin wastes from Love Canal, New York, and dump them in Morocco. However, the State of New York refused to turn over the wastes.\textsuperscript{37}

Scheme: Midco/Tarfaya

Date: May, 1989
Type of Waste: Hazardous
Source: Europe
Exporter: Midco
Pretext/Fate: Incineration
Status: Unclear

In May 1989, King Hassan II, stated publicly that he had rejected a plan by the British based consortium Midco, to construct "the largest toxic waste disposal plant in the world" on the western edge of the Moroccan Sahara in a region called Tarfaya. The scheme was uncovered and reported on the front page of the London newspaper "The Guardian".

According to "The Guardian", the toxic waste incinerator would burn up to 2,000 tonnes of North American and European waste each day.

The issue appeared dead until it was raised again by journalists in the down-wind Canary Islands in articles appearing in August publications there. The articles assumed that the plant was still being planned.\textsuperscript{38}

3.9 SPAIN

Scheme: Cosan Chemical

Date: 1987
Type of Waste: Mercury
Source: USA
Exporter: Cosan Chemical Corp.
Pretext/Fate: Mercury recovery
Status: Some actual, some rejected

In November 1987, the government of Spain refused permission for the mining company Minas de Almaden y Arrayanes of Madrid to import 22,500 pounds of mercury wastes per year from Cosan Chemical Corporation of Carlstadt, NJ, USA. According to Cosan Chemical, "The foreign consignee... will be processing the waste streams for recovery of the mercury metal contained. They will then return the metal recovered to us for reuse."

\textsuperscript{37}Greenpeace USA

\textsuperscript{38}El Diario de las Palmas, August 11, 1989; The Guardian, 15, 16, May 1989
However in a July 1990 discovery it was revealed that Minas de Almadén y Arraynes of Madrid probably had no intention of recycling the wastes.

As earlier Cosan wastes along with mercury wastes from many other European companies were discovered stacked randomly and dangerously in open mining property.\(^{39}\) (See Almadén Mines below)

**Scheme: Triangle Metallurgical**

**Date:** 1989  
**Type of Waste:** Metal waste and contaminated dirt  
**Source:** USA  
**Exporter:** Triangle Metallurgical  
**Pretext/Fate:** Reclamation  
**Status:** Actual  

In early May 1989 the US government proposed a $51,750 fine for the waste generator Triangle Metallurgical of Granite City, Illinois, and a $12,700 fine for the trucking company Beelman Truck Co. of Missouri, for an illegal waste shipment to Spain.

The US Environmental Protection Agency (EPA) announced the fines after St. Louis Post-Dispatch reporter Bill Lambrecht disclosed the illegal shipments. According to Lambrecht, Triangle Metallurgical shipped 750 yards of metal waste and contaminated dirt from Illinois to Bilbao, Spain, before it received permission from the Spanish government to do so. The waste left Triangle on 28 December 1988 and arrived in Spain on 11 February 1989. In Spain, the waste was trucked to the copper reclamation company, ErCosa.

The Illinois company did notify the EPA of their intent to export waste but did not wait for prior approval from Spain, the importing country, before their ship left the United States. The President of Triangle, William T. Wegryzn, admitted that the company did not have Spain’s approval to ship the material, but said he felt that notifying the EPA was sufficient.\(^{40}\)

**Scheme: Almadén Mines**

**Date:** 1981-1987  
**Type of Waste:** Mercury  
**Source:** USA, Italy, Sweden, Australia, Netherlands, Belgium, Germany, UK, France  
**Exporter:** Various  
**Pretext/Fate:** Mercury recovery

Status: Actual

In May of 1990, it was discovered that the mining lands of Minas de Almadén had been used for the open air dumping of about 11,000 tonnes of highly toxic mercury wastes. The wastes came from various multinational companies including Bayer, Solvay, Montedison, Cogema, Duracell, Cosan and ICI as well as infamous brokers such as Ecodeco and Euromet. Minas Almaden was able to secure sales of the mercury from their mines with the guarantee to their buyers that they would take the residual mercury back for reprocessing. But it now appears that there was never any intention of recycling the waste and the waste has now been sitting in the open air for many years, posing a threat to land and aquatic ecosystems alike. The mining company admittedly does not have an appropriate way of dealing with the mercury wastes. In February of 1991, the government ordered the landfilling of the wastes in a landfill built on the site. Greenpeace Spain is pursuing a lawsuit against the dangerous landfill.41

3.10 SYRIA

Scheme: Jelly Wax I

Date: 1988
Type of Waste: Toxic
Source: Italy
Exporter: Jelly Wax (Italy)
Pretext/Fate: Dumping
Status: Actual

For a complete account of the Jelly Wax I scheme, please see the section on Italy.

3.11 TUNISIA

Scheme: Aluminum, H.I.D.

Date: 1989
Type of Waste: Aluminum smelting residues
Source: Germany
Exporter: Human Industry Development
Pretext/Fate: Resource recovery
Status: Unknown

According to a 1989 broadcast from the West German Radio Station Radio Nord 3, the Hamburg-based company Human Industry Development (H.I.D.) plans to transport aluminum smelting residues of unknown origin from Hamburg to Tunisia. The alleged

41Almaden is the subject of a special Greenpeace Report, The Great Cover-up: The Transport and Dumping of Foreign Hazardous Wastes in Almaden, Spain, Greenpeace international; Greenpeace Spain; El Independiente, Sociedad, 8 June, 3 July, 1990.
shipments are supposedly for "resource recovery".\textsuperscript{42}

**Scheme**: Eni Ambiente/Joint venture

**Date**: 1989  
**Type of Waste**: Urban, industrial and ship ballast  
**Source**: Italy  
**Exporter**: ENI Ambiente  
**Pretext/Fate**: Incineration  
**Status**: Unknown  

A joint venture between ENI Ambiente in Italy and Tunisia to develop an "integrated system" consisting of offshore platforms to incinerate urban, industrial, and ballast wastes has been proposed. One of the systems is proposed for Sicily and the other probably in Tunisia. In the proposal it is stated that the system could take "industrial wastes from abroad, carried by tankers and container transport ships".\textsuperscript{43}

**Scheme**: S.O.P.

**Date**: 1987  
**Type of Waste**: Hazardous wastes  
**Source**: Unknown  
**Exporter**: S.O.P  
**Pretext/Fate**: Dumping  
**Status**: Unknown  

In a letter dated 4 September 1987, the West German waste broker S.O.P. asked officials of the Tunisian government to provide them with a 10 square kilometre, deserted area with a railroad line for the "storing of municipal waste.... and hazardous waste of the chemical industry". Under S.O.P.'s plan, the waste would have been dumped in landfills. The reaction of the Tunisian government to the proposal is unknown.

The Tunisian government would have earned at least 15 DM per tonne, starting with a minimum of 500,000 DM per month, leading to one million DM per month later on. Under this scheme, the amount of waste shipped to Tunisia would increase from an initial 8,000 tonnes per month to 40,000 tonnes per month. \textsuperscript{44}

3.12 TURKEY

**Scheme**: Black Sea Barrels  
**Date**: Spring 1987

\textsuperscript{42}Greenpeace Germany.  
\textsuperscript{43}Greenpeace Italy  
\textsuperscript{44}Greenpeace Germany
Type of Waste: Hazardous, DDT and PCB's etc.
Source: Italy
Exporter: Sirteco, others?
Pretext/Fate: Incineration, landfill in Rumania
Status: Actual, dumped at sea

Between July and December 1988, at least 364 barrels full of various toxic substances washed ashore on the Turkish Black Sea coast. When the barrels first washed ashore near the towns of Rize, Trabzon, Giresun, Ordu, Samsun, Karasu, Sile, Kandira and Sinop, many were emptied by local people and used to store rainwater or food. Some suffered nausea and skin rashes. A cow died the same day it licked the contents of one barrel. One of the barrels exploded. Beaches had to be closed as authorities began to collect them systematically. There were also reports of birds, fish and dolphins washing ashore dead during the same period. Many of the barrels were buried in the sand, while others were stored in warehouses by local authorities.

Documents found inside certain barrels revealed that much if not all of the wastes were of an Italian origin. Further, the barrels were marked with an "R" for rifiuti, the Italian word for waste. The first analysis of the waste in October 1988 by the then Acting Manager of the Turkish health service revealed that the waste is paint or benzene and cellulose lacquer wastes. The Acting Manager also confirmed the presence of insecticides containing DDT as well as PCBs.

The Italian magistrate investigating the sources of the waste discovered that much of the waste had been exported to Sulina, Rumania, on board three Maltese and Turkish vessels in the Spring of 1987. These vessels included the CORINA and AKBAY II. One of the exporting companies was Sirteco Italia SRL. A copy of the contract with Sirteco, "a commercial agent operating in the ecology sector", showed an agreement with the management of the port of Sulina to ship "explosive and radioactive waste" to be stored "temporarily" in areas of the port set aside for that purpose. Later they were to be disposed of under legislation in force in Rumania either through burial in "two special dumps" or "through incineration".

Although this type of facility is not known to exist in Rumania, the deal went through and European wastes from such companies as Uniroyal, Acna Chimica Organica, and Hoechst were transported and stacked in unventilated hangars where no fire-fighting equipment was available. The Romanian Minister of Foreign Trade was implicated in the scheme and was subsequently dismissed along with five other government officials. In July 1988, seven others were sentenced to 11-18 years imprisonment for their involvement in the deal.

It is unknown exactly how the wastes ended up in the Black Sea and eventually on Turkish shores, but an investigation by Robin-des-Bois, a French environmental group, led that group to believe that the wastes were stored for about a year by the Romanian authorities and then were loaded on board a Panamanian vessel called the MUNZUR which was operated by the Turkish company Caferoglu. This vessel had ten derricks enabling it to
dump barrels at sea. The dumping was clearly intentional as holes had been punched in the barrels in an attempt to make them sink. It is presumed that many more involved did sink, the ones washing ashore being a small percentage of the whole. So far, there has been no effort to have the wastes returned to Italy.

This appears to be a case of Italian wastes being transported aboard Maltese and Turkish flagged vessels deposited on Romanian soil and subsequently dumped at sea by a Panamanian flagged vessel operated by a Turkish company. Neither Rumania, Turkey or Malta are signatories to the London Dumping Convention. Italy and Panama are.\footnote{Viveret, Charles. "Mer Noire: poubelle de l'Europe, Captures en baisse et futs toxiques"; Le Marin 30 March 1990, P.5.; Bonnemains, Jacky. "Peche aux futs toxiques dans la mer Noire"; Liberation 17 April 1990; Agence France-Presse, 19 June 1988; Associated Press, 21 July 1988; Bassett, Richard. "Romanians Jailed in Danube Pollution Scandal"; The London Times, 20 July 1988; Greenpeace Italy; Robin-des-Bois, press release, 29 March, 1990.}

Scheme: Fuel Substitute

Date: 1987-1989
Type of Waste: Waste oils, sawdust, paint and enamel sludges
Source: Germany
Exporter: Weber Company (Salach, West Germany)
Pretext/Fate: Fuel substitute
Status: Actual, rejected

In the autumn of 1987, the responsible party for waste exports in Turkey, the Landratsamt Göppingen, authorized the German company Weber of Salach to export 100,000 tonnes of "fuel substitute" to Turkey. The "fuel substitute" consisted of 50% sawdust, 40% paint and enamel sludge and 10% waste oil, and was to be burned in a cement factory in Isparta, West Anatolia. Weber said he supervised the burning of 40 tonnes of the first 1,620 tonnes delivered.

The fact that the "fuel substitute" contained toxic heavy metals and chlorinated hydrocarbons provoked a public outcry in Turkey. The Chairman of the Isparta Chamber of Commerce, had issued the import "permission". However, the Chamber had not been authorized to do this.

In May 1988, The Turkish Environment Minister visited his German counterparts in Bonn and in Stuttgart. He called on West Germany to take the waste back. The answer from Bonn was that the waste had been falsely labelled and they agreed to take it back. But in Stuggart the reaction was that the project had been technically legal and attempts were made to work out a generally acceptable solution outside Baden- Wurttemberg.

On 30 July 1988, the ARKTIS TRADER, a vessel owned by the Danish Elite Shipping Company, eventually left the port of Antalya,
Turkey, loaded with 1,580 tonnes of "fuel substitute". Elite spokesperson claimed that the wastes were paint wastes from a Turkish car manufacturer and non-toxic.

After the German Land Niedersachsen, Belgium and the UK had refused to accept the waste, it was transferred to two smaller Dutch vessels, DENZO and BAREND, and shipped to Stuttgart Port. Several ultimatums given by the city of Stuttgart went by, after which the Stuttgart Regional Board threatened to force Weber to dispose of the wastes in the Baden-Wurttemberg disposal site for hazardous waste for 800 deutschemarks per tonne. Weber went to court and obtained a delay until the end of the year.

Three truck loads of waste have since been burned in the incinerator for hazardous waste in Biebesheim, Hessen. Since mid-January 1989, one hundred tonnes of "fuel-substitute" per week have been shipped to the French incinerator of SARP Industries at Limay, northwest of Paris. Burning 1,500 tonnes of "fuel-substitute" in a West German incinerator would have cost 1.2 million deutschemarks (800 deutschemarks per ton). At Limay, Weber pays one-sixth of the West German price.

690 tonnes are still sitting at Stuttgart port in a barge, although the authorities ordered Weber to dispose of them before January 1990.46

Scheme: Altvater

Date: 1988
Type of Waste: Halogenated solvent residues
Source: West Germany
Exporter: Unclear
Pretext/Fate: Incineration
Status: Rejected

In February 1988, the West German Landratsamt Ravensburg, then responsible for export permissions, was notified of a scheme to export to Turkey, 1,000 tonnes of halogenated solvent residues. Due to high amounts of chlorine, the wastes normally would have been burnt in an ocean incineration ship such as the VULCANUS or VESTA, both of which have neither smokestacks nor waste gas filters. Enclosed in the notification was a fake letter of welcome by the Turkish Minister of Health. The Zurich (Swiss) investment consultant firm Faktum (Wolfgang Honold) had provided Altvater with the letter. A "mine company", Buyuktemiz, was to receive the wastes. With the help of Turkish journalists, the German Green Party was able to prove the letter of welcome to be a fake. The Landratsamt Ravensburg then refused to allow the export scheme.47

46 Stuttgarter Zeitung, January 1989; Greenpeace Germany

47 Stuttgarter Nachrichten, 12 March 1988; Frankfurter Rundschau, 26 April 1988
Scheme: Petersberg

Date: 1988
Type of Waste: Toxic
Source: Vienna, Austria
Exporter: Vinzenz Wagner (Vienna, Austria)
Pretext/Fate: Dumping
Status: Rejected

The West German ship, MV PETERSBERG, left Vienna on 18 May, to deliver hazardous wastes to Turkey. The ship was contracted by Bayerischen Lloyd of Regensburg to carry 1,300 tonnes of toxic oil-contaminated soil from the bankrupt paint manufacturer, Vinzenz Wagner in Vienna, to the Buyuktemitz in Turkey. However, the vessel was denied entrance in Turkey by Istanbul port authorities because of the Turkish waste import ban and because of its toxic cargo.

The MV PETERSBERG then headed for Rumania where it was also denied entrance. The vessel, including the captain, his wife and children and a four-person German crew, became stranded in the Black Sea. The Romanians refused to allow the vessel to pass through the Danube and the Turks denied passage through the Bosporus into the Mediterranean.

According to Radio Ankara (Turkey), the PETERSBERG was outside Turkish territorial waters in the Black Sea on 28 September 1988. The impasse broke in late October 1988 when Romanian authorities announced that the vessel would be permitted to journey to West Germany via the Danube. The departure was delayed, however, because the water level was too low, and because West German and Austrian authorities could not settle which government was responsible for the Austrian waste aboard a German ship.

Soviet authorities promised the German Minister of Transport, Mr Warnke, on 24 December 1988, to allow the Petersberg to transfer its cargo to smaller German ships in the port of Ustdunaijsk. The Austrian government plans to burn the wastes in a hazardous waste incinerator in Vienna, and to bear the costs of disposal. According to the exporter, Ing. Rainer Goschl, the voyage of the Petersberg was an attempt to "find a sound way of exporting". Originally, 50,000 tonnes were planned to be shipped.48

Scheme: Al Karameh

Date: 1988
Type of Waste: PCB contaminated industrial waste
Source: West Germany
Exporter: NE-Metall (West Germany)
Pretext/Fate: Recycling
Status: Rejected

Despite the official Turkish ban on industrial waste imports, the manager of the West German company, NE-Metall, arranged a waste import deal with the Turkish air force general and businessman, Ismail Buyuktemiz in June 1988.

Under this deal, 17,500 tonnes of waste from the Thyssen steel plant in West Germany were loaded on the AL KARAMEH, owned by Jordan National Shipping, for delivery to Izmir, Turkey. The wastes were destined for use as "recycling material" in a Turkish blast furnace. However, Turkish officials conducted analyses of the waste, and found that it was contaminated with PCBs. The vessel was rejected in Izmir.

On 21 June 1988, the ship arrived in Famagusta, Cyprus, but was denied entrance by Turkish authorities. The ship’s next stop was Lisbon on 13 July 1988. The International Transporters’ Union Federation notified authorities about the toxic cargo. While authorities were assessing the situation, the AL KARAMEH left for Rotterdam.

On 1 August 1988, the ship arrived in Rotterdam and was again denied permission to leave the cargo. The wastes have since been returned to Thyssen which is considering civil proceedings against Buyuktemiz.

The deal had been arranged via Kompenhans’ second company, Agor Affination, that was supposed to be located in Darmstadt, Germany, but cancelled its registration there in 1985. Meanwhile, Buyuktemiz’ company had to declare itself bankrupt, and he went into hiding in Munich.\textsuperscript{49}

\par

\textbf{Scheme: Schubert}

\textbf{Date: 1988}

\textbf{Type of Waste: hazardous}

\textbf{Source: West Germany}

\textbf{Exporter: Konsul Siegfried Schubert}

\textbf{Pretext/Fate: Incineration}

\textbf{Status: Unclear}

In the summer of 1988, a West German business, Konsul Siegfried Schubert planned to tear down a 17-year-old incinerator for hazardous waste (capacity: 18,000 tonnes per year) in Schwabach, Bavaria, and to reconstruct it at Bursa, Western Anatolia. It is not certain whether imported wastes were planned to be burned in Bursa.

It is unknown whether the plan is altogether abandoned or only temporarily delayed.\textsuperscript{50}

\par

\textbf{Scheme: Affination}

\textsuperscript{49}Greenpeace Netherlands

\textsuperscript{50}Greenpeace Germany
Date: 1988
Type of Waste: Sewage sludge
Source: West Germany
Exporter: Agor Affination, NE-Metall
Pretext/Purpose: Fertilizer
Status: Unknown

Agor Affination (see also "AL KARAMEH") offered cities and authorities of the Lander in southern West Germany the opportunity to ship municipal sewage sludge to Turkey to be used as fertilizer.

After the deal became public, and Agor Affination’s metal treatment factory NE-Metall, had to close because of its harmful emissions, the Green Party asked the state government about the waste export proposal. The government of the Land Baden-Württemberg replied that plans to export sewage sludge to Turkey had been abandoned.51

3.13 YUGOSLAVIA

Scheme: Khian Sea

Date: 1988
Type of Waste: Incinerator ash
Source: Philadelphia, USA
Exporter: City of Philadelphia
Pretext/Purpose: Fertilizer
Status: Rejected

Yugoslavia was one of the many countries targeted by the infamous waste trading vessel the KHIAN SEA from 1986 - 1988. The KHIAN SEA left Philadelphia in August 1986 loaded with toxic incinerator ash from the US city of Philadelphia. After being rejected by the Bahamas, it meandered around the Caribbean Sea for 18 months, before finally arranging a deal to unload 14,000 tonnes of "fertilizer" in the port of Gonaives in Haiti.

Unfortunately for the people of Haiti, the "fertilizer" was actually heavy metal and dioxin laden incinerator ash from Philadelphia. The ship unloaded about 4,000 tonnes of toxic ash in Haiti in February 1988, before Haitian authorities discovered the deception and ordered the KHIAN SEA to leave. For 27 subsequent months the dump ship plied the waters of five continents looking for a "home" for the remainder of the waste. During the course of the odyssey, an official of the city of Philadelphia stated, "I’d slit my wrists if I didn’t think there is enough greed in the world to find somebody to take Philadelphia’s trash."

After cruising the western coast of Africa the ship arrived in a shipyard in Bijela, Yugoslavia for "repairs". While in Yugoslavia, the vessel changed its name to the FELICIA. In late September 1989, the Felicia passed through the Suez Canal still loaded with its two-year-old-cargo, and reported its destination

51Greenpeace Germany

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as the Philippines.

Finally, in November 1988, the FELICIA appeared off the Singapore coast, with its holds empty, and with a new name, the PELICANO. Somewhere between the Suez Canal and Singapore, the ash ship had discharged its cargo.

In November 1989, one shipping source told Greenpeace that the crew of the ship frequently shoehulled the ash overboard after it crossed the Atlantic Ocean. According to the source, most of the ash was dumped in the South China Sea. However, this information has not been corroborated by any other of the ship’s crew, who have remained silent about the fate of the ash.

The Khian Sea odyssey includes attempts to dump the toxic ash in the Bahamas, Bermuda, Cape Verde Islands, Chile, Costa Rica, Dominican Republic, Guinea, Guinea-Bissau, Haiti, Honduras, Indonesia, Philippines, Senegal, Sri Lanka and Yugoslavia.\(^52\)

4. DUMPING BY ANOTHER NAME - THE MYTH OF HAZARDOUS WASTE RECYCLING

The most disturbing recent development in the international trade in hazardous wastes has been the cloaking of waste exports under the name of "recycling". Greenpeace research has shown that currently 62\% of the waste trade schemes recently offered to such regions as Eastern Europe or Central America claim some form of recycling process.

At the same time, industry and fora such as the OECD and EC are seeking exemptions from regulations and prohibitions on the export of hazardous wastes that is claimed to be bound for a recycling destination. These recycling loopholes threaten to undermine all of the progress that has been made to date in eliminating the international trade in hazardous wastes.

Hazardous waste moves primarily for economic reasons. The movement from North to South for instance is often caused by cheaper labour, capital costs, liability, insurance costs etc. There is a correlation between these cheaper costs and less environmental and occupational safety and health controls. Thus these price differentials are often indicative of much less stringent labour or environmental protection laws. Whether the export is a blatant attempt to circumvent environmental regulations or not, when one transports wastes for recycling in a third world country, the effect is the same—dirty industries are allowed to exploit workers and the environment because of an obvious need for foreign exchange.

Even when the proposed "recycling" schemes involve some form of legitimate recycling, this type of trade, if condoned, represents a grave loophole through which huge volumes of poisons can be

\(^{52}\)The Saga of the Philadelphia Ash Flotilla, Including the KHIAN SEA, the BARK and the BANYA (A Chronological review through newspaper clippings 1984-1988), Greenpeace USA.
allowed to move across boundaries and endanger the health and environment of the receiving country.

4.1 Recycling is Not Clean Production

When you recycle a hazard you are usually left with a hazard - either by creating hazardous products or new hazardous wastes. The answer is to prevent hazards, not re-create them. This is accomplished by eliminating the use of hazardous materials in products and process inputs.

Due to the indiscriminate and misguided use of toxic products in our society, the recycling of consumer goods very often involves a toxic component. Recyclers cannot be blamed for the fact that the waste stream they seek to process is contaminated by hazardous chemicals. In fact most recyclers would prefer to process only non-hazardous waste streams. However with few exceptions, due to the hazardous components involved, hazardous waste recycling is another form hazardous production, further exposing the environment, workers and the public to more hazards.

On the face of it, the process of extracting usable materials from hazardous wastes sounds like an activity preferable to dumping the material in a landfill or burning it in an incinerator. Indeed this would likely be true were these the only choices left us. Fortunately there is another, clearer more logical choice, and that is TOXICS PREVENTION--keeping hazardous materials out of our manufacturing processes.

4.2 Recycling as a Pretext for Disposal

Today, recycling is very often used as a pretext for making profits from hazardous waste disposal. Many recyclers make a majority of their profits from the mere act of taking the waste--the service of "disposal". These "recyclers" are paid to receive waste because of its known hazard. Increasingly as more waste streams are banned from landfilling or incineration, recycling processes are seen by industry as the new waste escape valve.

And because almost any waste can be claimed to be of "use" to the poorest segments of our society, wastes are traded across political and economic boundaries to poorer, less regulated communities and countries. Countless excuses have been recorded for wastes being traded with alleged benefits to the recipients of the wastes. Most often these pretexts are designed around the needs of the countries involved, with little reference to the inherent dangers. Most common examples include utilising hazardous wastes to create energy or as roadbuilding material. But much more outlandish proposals are made as well, including construction material, fertiliser, and even the use of wastes to raise the level of Pacific Islands to counter the effects of global warming!

Waste traders take advantage of the green image of recycling as well as loopholes in the law, allowing hazardous wastes to be transported with less control if a recycling destination is
claimed. Claiming a recycling pretext is an easy way to "sell" economically motivated hazardous waste export to competent authorities in countries of export and import.

4.3 Sham Recycling and "Legitimate" Recycling

The recycling industry is trying hard to establish a clear differentiation between "sham-recyclers", and "legitimate" recyclers. We find however, that from an environmental standpoint, such a clear distinction is not possible. The entire hazardous waste recycling industry represents a continuum of hazardous "grey" areas which all warrant increased scrutiny and prohibition.

While some waste traders use the word recycling as a blatant pretext in order to take advantage of legal loopholes or relaxed government scrutiny, more "legitimate" forms of hazardous waste recycling (eg. metals reclamation) also involve dangerous worker exposure or the dumping of toxic material on the environment of the importing country.

Inevitably, as nothing can be recycled absolutely 100%, hazardous residues and emissions from the process are released in the form of new wastes, or pollution.

For example, some of the most dangerous waste trade takes place in the ferrous and non-ferrous metals waste streams. The non-ferrous metals waste is almost always contaminated with extremely hazardous heavy metals of which only a few are intended to be re-utilised. Because much of this waste stream comes from scrap or processes involving halogens and hydrocarbons, it is contaminated with polycyclic aromatic hydrocarbons (PAHs), as well as dioxins and furans, some of the most hazardous chemicals known. These unrecycled components are then discharged in operations in some of the poorest, most polluted areas of the world.

4.4 Control All forms of Hazardous Waste Trade

The issue of waste trade prevention should be limited in scope to regulations and controls on hazardous wastes and disposal processes. There is no need to further regulate the trade in truly non-hazardous materials such as paper or rag wastes.

It is the hazardous wastes that are of great concern and which have been addressed in other fora such as Basel, Lome IV, and the Bamako Conventions. Clearly the definition that must be used will be the one that is consistent with these fora—namely that definition developed by the OECD and embodied in the Basel Convention.

4.5 Reasons to Close Recycling Loopholes

Already, a great proportion of recycled hazardous waste is exempt from legislation restricting its transport. Waste has too often been defined by its destination rather than by its chemical
characteristics. This must change. As countries increasingly implement the Basel, Lome, or Bamako Conventions, they will be obliged to define hazardous waste by its chemical characteristics and not by arbitrary political decisions. For example, wastes bound for metals recovery operations must be considered hazardous waste if they have harmful quantities of heavy metals or organic chemicals or are to be used in a process which creates hazardous wastes.

Given that the goal of almost all regulators is to prevent waste generation and to minimise transport of wastes, there is no reason to treat wastes bound for recycling any differently than wastes for "final disposal". Even if one were to believe that the recycling of hazardous waste is a good idea, recycling loopholes which make the transport for such processes easier, is a dangerous prospect.

The problems associated with the transboundary movement for recycling are further outlined below:

4.5.1 Opens the Doors to Exploitation

By allowing the opportunity to ship hazardous waste that is designated for recycling an opening is allowed, through which waste traders can ship a wide variety of dangerous substances misrepresented as "fertiliser, road oil, building materials" etc. This presents a huge problem for enforcement and places the burden of proof of toxicity and regulation on the authorities of destination. Adequate enforcement even in the rich nations of the EC and USA of transboundary movement regulations has recently been shown to be near impossible.

4.5.2 Absolves Generators of Responsibility

The transboundary movement of hazardous wastes, for the purposes of recycling can be used as an excuse by generators to absolve themselves of responsibility for the later effects of the hazardous materials. When legally viewed as "secondary raw materials" or "for recycling or recovery industries", toxic wastes are too often exempted from the requirements for ensuring the availability of "adequate technical capacity or suitability," Even if strict liability is imposed on the generator, from a practical perspective there is little assurance that a judgement can be enforced against the foreign generator.

4.5.3 Allows Risky Transport

Transport of such materials involves the transportation risks or endangerment to dock and ship workers, processing plant workers, and the environments of the transit areas and ultimate disposal site of the residues.

4.5.4 A Disincentive for Waste Minimisation

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Shipping wastes for recycling is often another way to avoid the responsibility to minimise the waste at the source of generation. By avoiding this responsibility in order to enhance profits, such movement creates a disincentive to introduce non-waste or low-waste technologies at the point of generation.
5. OCEAN DUMPING

It is crucial to note that the international trade in hazardous, including nuclear wastes, not only subjects land territories to the risks of dumping, but the territorial waters and the global commons of the high seas are threatened as well. The allure of ocean dumping by waste traders is obvious. It is extremely easy and virtually liability free to throw wastes in barrels or bulk into the sea even though the environmental implications can be severe.

Today, as the marine environment has become increasingly degraded, there has been a shift in thinking away from the principle of assuming a harmless "assimilative capacity", toward the view that all contamination of the marine environment, especially by synthetic and persistent substances, should be significantly reduced or eliminated even where there is inadequate or inconclusive evidence to prove a causal link between emission and effects. This precautionary principle has been adopted by the Barcelona Convention in 1989 as well as by many other fora.\(^53\)

The Convention on the prevention of Marine Pollution by Dumping of Wastes and Other Matters (London Dumping Convention, LDC) seeks to control pollution of the sea by dumping, and to encourage regional agreements supplementary to the Convention.\(^54\)

During the Thirteenth Consultative Meeting (London, 1990), the Contracting Parties agreed that dumping of industrial wastes shall cease by 31 December 1995, and encourage the adoption of individual or regional commitments to cease dumping of industrial wastes before 31 December 1995.\(^55\)

It is crucial that within the sensitive marine environment of the Mediterranean region, ocean dumping is banned and steps are taken to combat illegal or "pirate" dumping.

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\(^{53}\) These fora include the North Sea Ministerial Conference, The UNEP Governing Council, The Paris and Oslo Commissions, the Barcelona Convention, the Nordic Council's International Parliamentarian Conference on Pollution of the Seas, the Nordic Council, the EC Parliament, the Bergen Conference Ministerial Declaration, the Vienna Convention on the Protection on the Ozone Layer, and the Action Plan for the Environment in Latin America and Caribbean.


6. RADIOACTIVE WASTE IN THE MEDITERRANEAN REGION

6.1 Overview.

For almost fifty years, a number of countries have been developing nuclear technology, both in the civil and military industries. Large-scale national nuclear construction programmes did not truly flourish until the early 1960s, and for the most part came to an end by the 1980s. Despite the short tenure of this "nuclear golden age" the industry has left a long-term lethal legacy -- massive quantities of radioactive waste representing a threat for the environment and health of present and future generations.

The European Commission has estimated that seven nuclear nations in the European Community will have produced the following amounts of radioactive waste by the year 2000:

<table>
<thead>
<tr>
<th>Low and medium radioactive wastes:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arising prior to 1988, now stored:</td>
<td>59,000 cubic meters</td>
</tr>
<tr>
<td>Projected quantity, 1986-2000:</td>
<td>1,150,000 cubic meters</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alpha and high level radioactive wastes:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arising prior to 1986, now stored:</td>
<td>62,000 cubic meters</td>
</tr>
<tr>
<td>Projected quantity:</td>
<td>62,000 cubic meters</td>
</tr>
</tbody>
</table>

In the USA, and only considering civil nuclear sources, the total amount of low level radioactive wastes is 21,300 metric tonnes, and of irradiated spent fuel, 70,100 cubic meters.

These figures fail to include the waste expected from decommissioning of nuclear reactors. In fact, and despite a cessation in the expansion of the nuclear industry, the demand for radioactive waste disposal options has increased due to the

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56 European Commission, "Present Situation and Prospects in the Field of Radioactive Waste Management in the European Community," Second Report, July 1987. For an idea of the volume these wastes represents Virgin Gorda Island, est. 25sq km, could be covered with rad waste (total of 1,200,000 cubic metres) at a depth of up to 5cm (nearly 2 inches).

waste from decommissioning of a growing number of reactors. In the early planning stages of nuclear programmes, very little attention was given to the problem of decommissioning, and there is a serious lack of technology and resources to deal with the vast quantities of waste that will be produced.  

The option of dumping radioactive wastes in shallow land-fills has now been rejected for national sites by many States on environmental and health grounds, and at present, there exists no operating facilities anywhere in the world for the disposal of high level radioactive wastes. Wherever attempts have been made to conduct development work for such facilities, those countries have discovered that their own citizens have rejected them. In countries as diverse as the United Kingdom, Germany, Sweden, France and the USSR, local communities have vigorously resisted the siting of high-level radioactive waste disposal facilities in their region.

The dumping of radioactive wastes at sea was carried out for many years by the USA and some European countries. In 1983 the Contracting Parties to the Convention for the Prevention of Marine Pollution by Dumping of Wastes and Other Matters (London Dumping Convention, LDC) agreed, after long debate and controversy, on a moratorium on the dumping of radioactive wastes at sea. Since then, no ocean dumping operation of nuclear

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58 Some fifty nuclear power reactors are now awaiting decommissioning worldwide. With the phasing out of first generation gas-cooled reactors in France and the United Kingdom, a further two dozen plants will begin the decommissioning process in the early 1990's in this two countries alone. The first nuclear powered naval vessels are also now awaiting decommissioning. There are now more than 500 nuclear power reactors in operation or under construction worldwide. Data on Power Reactors from World Nuclear Industry Handbook 1989, Nuclear Engineering International, 1988.

59 For example in 1967 the Nuclear Energy Agency of the OECD designed a 4000 meters deep area in the Atlantic Ocean, 700 km off the North-west of the Spanish coast, as the European dump-site. Eight countries under the supervision of the NEA, carried out a total of twenty six dumping operations between 1967 and 1981. This represented 85,000 tones of waste containing 900,000 curies of radioactivity. See Greenpeace International Briefing On Radioactive Waste Dumping At Sea. The Controversy Over Ocean Dumping of Radioactive Wastes: The London Dumping Convention, Amsterdam, Stichting Greenpeace Council, 1989.

60 Resolution, LDC.21(9) adopted by the Nine Consultative Meeting of the London Dumping Convention (September 1985). This resolution:

"Agrees to a suspension of all dumping at sea of radioactive wastes and other radioactive matter to permit time for the further consideration of issues which would provide a broader
waste is known to have occurred.

The LDC's moratorium was adopted out of the grave concern for the state of the ocean environment, and for the health and economic well-being of the communities whose livelihoods depend upon marine produce. A cheap and effective means to off-load domestic problems onto global community was thereby denied to those countries producing large quantities of radioactive wastes.

The report of the LDC's Inter-governmental Panel on Radioactive Wastes (IGPRAD) will probably be released in 1992.\textsuperscript{61} In light of this report, the LDC Contracting Parties will have to decide whether to allow sea dumping of radioactive wastes to resume, to continue moratorium, or to ban permanently the practice by amending the Annexes to the Convention. Because of existing scientific uncertainties, and differing management philosophies, no consensus is expected, despite more than ten years of active debate. Very strong pressure is to be expected from some countries and from the nuclear industry itself, to re-open the sea dumping option. In the 1990s and beyond, the nuclear industry will be faced with ever increasing amounts of radioactive wastes, both in volume and in terms of the radioactivity involved, as a result of the massive decommissioning programmes of the old and now contaminated nuclear plants, and with waste management problems of unprecedented magnitude, for which there is no true solution to date.

The central theme of all radioactive waste issues is that, no matter how sophisticated the technology employed, the risk presented to health and environment cannot be reduced to zero. And in fact the risks are considerable. The countries who have "benefited" from nuclear energy must not attempt to pass the huge environmental, social and political cost of these wastes to the global commons or to other States. It is perfectly legitimate for all people in all countries to reject the exposure to the long-term risk presented by radioactive wastes.

6.2 Exporting the Radioactive Waste Problem

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basis for an informed judgement on proposal for the amendment of the Annexes of the Convention. This suspension will continue pending the completion of the studies and assessments referred to in paragraphs 2 to 5 hereunder."

\textsuperscript{61} This panel was established by a resolution adopted by the Ninth Consultative Meeting of the LDC (October 1985). This panel is requested to consider "The wider political, legal, economic and social aspects" of radioactive dumping at sea; the issue of comparative land-based options and the cost and risks associated with these options; the question of whether it can be proven that any dumping of radioactive wastes and other radioactive matter at sea will not harm human life and/or cause significant damage to the marine environment."
The two favoured options for dealing with radioactive wastes, dumping on national territory, or dumping in the "global commons" of the oceans, present technical, political and legal problems. Faced with an imminent increase in the quantities of radioactive waste that must be managed, the "nuclear countries" and industry are now seeking another option for the disposal of this extremely hazardous waste: export for disposal in other countries.

Despite strenuous efforts, attempts to codify concerns over the transboundary movements of radioactive wastes within global fora have met with little success. The Global Convention on the Control of Transboundary Movements of Hazardous Wastes (Basel 1989) actually sought to exclude radioactive wastes.

From the preparatory documentation of the Basel Convention, it is clear that the decision to exclude radioactive wastes was taken on the mistaken impression that "control systems" had already been established for the regulation of trade in radioactive wastes, and that these "control systems" fall under the auspices of the International Atomic Energy Agency (IAEA). However, and contrary to information provided by the IAEA to UNEP, legally binding "control systems" for the regulation of transboundary movements of radioactive waste did not exist at that time, nor do this day.

The frequently cited "Code of Practice on the International Transboundary Movement of Radioactive Waste",\(^{62}\) which was only recently adopted by the IAEA General Conference of September 1990, does not in any way prohibit the transboundary movement of radioactive wastes, nor is it binding in its "control" as the Basel Convention will be once it is in force.

Rather, this non-binding code only provides the guidelines to States for the development of policies and law on the international transboundary movement of radioactive waste based mainly in the "prior notification and consent of the sending, receiving and transit States".

The same code recognizes that "it is the sovereign right of every state to prohibit the movement of radioactive wastes into, from, or through its territory". Only a prohibition on radioactive waste transport, import and export in the Mediterranean Sea will prevent the dangers inherent to transfrontier movements of radioactive wastes.

The signatories to the Lomé IV Convention recognized the futility of attempting to "control" or manage such transport and called for a complete ban on the import of radioactive wastes into the 68 ACP (African, Caribbean, and Pacific) States as part of its waste trade prohibition (Article 39). (See Section on Lomé IV Convention below).

\(^{62}\)This Code of Practice on the International Transboundary Movements of Radioactive Waste was prepared by an International Group of Experts convened by the IAEA in February 1990 and adopted in the 43th regular session of the International Atomic Energy Agency General Conference (17-21 September 1990).
6.2 The Transit of Radioactive Waste through the Mediterranean

Spent fuel from the nuclear power reactor of Latina (Italy) is loaded in Anzio harbour and transported through the Strait of Gibraltar, to the Sellafield (U.K) reprocessing plant.

There is currently one especially designed ship involved in the transport of irradiated fuel, the Mediterranean Shearwater. The ship was built in 1981, in the UK, and it is owned by Pacific Nuclear Fuels Ltd., a subsidiary of British Nuclear Fuels Ltd. Every year the Mediterranean Shearwater carries through the Mediterranean 180,000 kg of nuclear spent fuel, distributed in three trips.

There are considerable risks involved in the sea transport of this radioactive material. Shipping fires, grounding, foundering and subsequent sinking are a fact of life in maritime transport and nuclear shipments will be inevitably fall victim to these same odds. The nuclear industry suggests that the changes of a major disaster are decreased by building strong casks, and by using special ships for the carriage of nuclear spent fuel. But ultimately these measures are recognized as limiting rather than prohibiting accidents. The question is not whether accidents may happen but what would be the consequences of such accidents.

Primarily the nuclear industry says that its casks will protect radioactive cargoes in case of accidents. The IAEA has promulgated a series of guidelines for the development and production of casks. Unfortunately, these guidelines are neither stringent enough nor do they take into account the real dynamics of shipping accidents.

For instances, studies indicate that these containers can lose their integrity after a fire of only 1 hour. This figure is based on a fire generating a temperature of 800 degree Celsius, or 1,475 degrees Fahrenheit. On the other hand, shipboard fires, on average, burn for over 20 hours, and can generate temperatures of 2,400 degrees Fahrenheit.

Concern about the catastrophic cost of nuclear transport accidents has spurred protests around the world and has in fact lead to the closure of a number of major ports to such cargoes. The Mediterranean coastal countries should consider closing the region to shipments of high-level nuclear material.

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64 International Maritime Organization (IMO), Fire Casualty Reports, 1960-‘86, London.
7. POLITICAL INITIATIVES -- "CONTROLS" vs. BANS

The debate over how best to prevent the environmental, political, social and moral ills presented by international waste trade has manifested itself in the existence of two types of legal instruments—control mechanisms and bans. Control mechanisms are characterized by the fact that they are generally supported by major industrialized powers and consist of a notification and consent regime known commonly as "prior informed consent" (PIC). The bans however, are more generally supported by less-industrialized countries—the potential victims of waste trade.

7.1 WASTE TRADE "CONTROLS"

US and European Community legislation, as well as the Basel Convention, rely on various forms of the implied contract of PIC as the basis for its "control system".® PIC calls for notification of export and has a requirement for the consent of a "competent authority" in the receiving country prior to export.

Rather than accepting "control systems" based on some form of "prior informed consent", much of the less-industrialized world have insisted on complete import or export bans as the only means to adequately combat waste trade or mitigate the political, ecological, moral or social ills created by it. PIC cannot pretend to be a just contract when we live in a world of such disproportionate economic and political levels a world where the poisons of the rich can be offered as short-term remedies for the poverty of the poor. PIC cannot pretend to address the disincentive for waste minimization clean production methodology that is served when industrial interests, with a minimum of paperwork, can cheaply export their waste problems rather than take responsibility for them at home.

We will elaborate below the shortcomings of the primary "control" legislation impacting the Baltic Region—The Basel Convention and EC legislation. Then we shall review the existing policies and legal mechanisms which move towards real solutions—waste trade prohibitions or bans.

7.1.1 The Basel Convention

In March 1989, the United Nations Environment Programme’s attempt to cure the waste trade plague culminated in the signing of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. The Basel Convention negotiations were marked from the start by the existence of a minority of powerful industrialized nations wishing to retain their right to sweep their waste problems out the "back door",

and a majority of developing countries with hopes of closing that door. Due to the consensus decision making process used in the creation of international law, the lowest common denominator represented by the heavily industrialised nations (USA, UK, FRG, USSR, Japan, etc.) prevailed.

The Basel Convention's primary achievement is a requirement that waste exporters receive the written consent (PIC) of importing nations before any shipment takes place. However, this notification regime is largely a duplication of existing laws in the United States and the European Community, and will do little to curtail existing or expected transboundary waste movements.

As of 16 April 1991, the Basel Convention had only been ratified by ten countries\(^66\). Entry into force will occur on the ninetieth day after the deposit of the 20th ratification instrument, and the first meeting of the Contracting Parties will be convened not later than one year after entry into force. It will therefore be some time before even this instrument enters into force.

Nine member states to the Barcelona Convention have signed the Basel Convention. These are FRANCE, CYPRUS, GREECE, ISRAEL, ITALY, LEBANON, SPAIN, SYRIA and TURKEY. Of these only FRANCE has ratified it\(^67\).

7.1.2 Critique of the Basel Convention

Environmental groups, and many less-industrialized countries have gone on record condemning the Basel Convention as an instrument which, rather than minimizing waste trade, serves to legitimize what should be considered a criminal activity.

The primary deficiencies of the Basel Convention are summarized as follows:

1. There exist no provisions to ban any kind of waste trade (except to Antarctica), even to developing countries or countries with less stringent environmental laws (Article 4). Even exports of wastes to non-contracting parties can be allowed (See paragraph 6 below).

2. By providing a legal framework within which to trade waste, the Convention legitimizes a practice which should be considered a criminal activity.

3. "Prior informed consent" (PIC) cannot pretend to be a just contract when we live in a world of such disproportional economic and political planes—in a world where the poisons of the rich can be offered as short-term remedies for the poverty of the poor.\(^66\)


\(^67\) Ibid.
poor. PIC cannot pretend to address the disincentive for waste minimization and the implementation of Clean Production methodology that is served when industrial interests can cheaply export their waste problems rather than take responsibility for them at home. (Article 6)

4. With PIC there is no guarantee that the competent authority can democratically or otherwise represent either the population or the environment of the receiving territory. (Article 6)

5. Radioactive waste can be interpreted to be excluded from the scope of the Convention. (Article 1)

6. The Convention can be circumvented by means of Bilateral or Multilateral Treaties, or agreements negotiated with non-Parties with a very subjective "which are not less environmentally sound" caveat. (Article 11)

7. There are no liability provisions. (Article 12)

7.1.3 The European Community (EC)

The full extent of waste trade in the Mediterranean region is unknown. What is known is that the overwhelming source of the waste transported legally or illegally comes from EC states. Because the European Community is the major source of regional waste, it is important to look at the legislative effort that the Community is making to control its own borders with respect to hazardous waste.

With the exception of Italy, EC Member States have no authority to prohibit any export of waste to the Parties of the Barcelona Convention as long as notification procedures for such export are observed and consent is received from the importing country.

These notification requirements, codified in Directive 84/631/EEC as amended by 85/469/EEC, 86/121/EEC, 86/279/EEC and 87/112/EEC, consist of a weaker version of PIC than is present in the Basel Convention. In the Basel Convention, the receiving state must consent to the import before it is allowed to be exported, whereas in the EC Directive, approval is assumed unless a denial is received within 20 days after the notification.

Almost all of the scandals involving hazardous waste trade have occurred since the application of this EC Directive. It is obvious, therefore, that it is fundamentally deficient and largely ineffectual.

7.1.4 EC Directive Critique

The primary deficiencies in the current EC Directive 84/631/EEC are as follows:

1. There exist no provisions to ban any kind of waste trade, even to developing countries or countries with less stringent environmental laws.
2. By providing a legal framework within which to trade waste, the Directive legitimizes a practice which should be considered a criminal activity.

3. Even the weak version of "prior informed consent" PIC codified in the Directive cannot pretend to be a just contract when we live in a world of such disproportional economic and political planes—in a world where the poisons of the rich can be offered as short term remedies for the poverty of the poor. PIC cannot pretend to address the disincentive for waste minimization and the implementation of Clean Production methodology that is served when industrial interests can cheaply export their waste problems rather than take responsibility for them at home.

4. With PIC there is no guarantee that the competent authority which must be notified can democratically or otherwise represent either the population or the environment of the receiving territory.

5. The definition of hazardous waste used in Directive 84/631/EEC is the same as in Article 1(b) of Directive 78/319/EEC. This definition is so weak as to exclude massive quantities of very dangerous wastes such as radioactive wastes, chlorinated solvents, organic solvents, dioxin contaminated materials such as incinerator ashes, sewage sludges, and household wastes. Further, all the wastes listed in the definition are subject to a very subjective interpretation of those wastes that are "in such a quantity or in such concentrations as to constitute a risk to health or the environment".

6. There are no liability provisions.

7. Many of the minimal requirements of the Directive can largely be circumvented by the "non-ferrous loophole" (Article 17) when the recovery of non-ferrous metals is involved. Already there have been scandals regarding this loophole, since much of the waste designated as "non-ferrous" contains toxic heavy metals or organic toxins such as dioxins or furans.

7.1.5 EC Obligations

Currently the European Commission has finished drafting a regulation to change the existing EEC hazardous waste transport Directive (84/631/EEC). It has now gone to the Council and to the Parliament and is expected to be acted upon in the last six months of 1991.

The draft attempts to amend the old directive to implement the new Lomé IV waste trade ban. The new hazardous waste regulation will also have to incorporate the provisions and definitions of the Basel Convention on Control of Transboundary Movement of Hazardous Wastes and their Disposal which was signed by the EC on 22 March 1989 in Basel, Switzerland. A regulation differs from a directive in that it need not be implemented in national legislation to become immediately binding on member states.
7.1.6 Critique of EC Waste Trade Regulation Proposal

The Commission proposal for a Council Regulation on the Supervision and Control of Shipments of Waste Within, Into and Out of the European Community is a weak, overly complicated, unenforceable, and loophole ridden document which will not serve the Community's stated needs "to prevent and reduce wastes at source" and "reduce waste movements to the minimum", (Council Resolution of 7 May 1990 on Waste Policy, 90/C 122/02).

The four fundamental flaws which stand in need of immediate correction are as follows:

--- Hazardous wastes can still be exported to non-EC countries. The EC principle of self-sufficiency with respect to waste management has thus been ignored.

--- An extremely dangerous and legally inconsistent use of a dual definition with respect to waste allows the opening of gaping recycling loopholes.

--- There is no explicitly stated allowance for member states which have reached their capacity for managing wastes to achieve the stated policy goal of national self-sufficiency to ban the import and/or export of wastes on a national basis.

--- There are no provisions for enforcement of this regulation with respect to intra-EC trade after 1992 and the subsequent absence of border controls.

I. Numerous past scandals involving the dumping of Western European wastes in Africa, South America, the Middle East and Eastern Europe have clearly demonstrated a problem in need of a solution.

Although many countries have actively sought waste import bans, implementation and enforcement is often difficult in receiving countries. Clearly the responsibility to prohibit waste dumping lies with the exporting nations. It is wrong to claim a commitment to "self-sufficiency", "waste minimization" and "environmentally sound management" of wastes, while insisting that the EC, not yet being self-sufficient, should still be able to dump their wastes on nations with even less environmentally sound waste management and technical capacity than those of the EC.

Given the commitment to the principles of "self-sufficiency" and "proximity" adopted by the Council on 7 May of this year; given the waste trade export ban agreed to by the European Economic Community in its Lome IV Convention with the African, Caribbean and Pacific (ACP) group of 69 states, signed on 15 December 1989; given the resolution by the European Parliament to ban all hazardous waste exports to developing countries made on May 26, 1989; given a continuing potential for politically damaging scandals involving EC hazardous wastes; the European Community must find its courage in the face of a vocal industrial lobby and
ban the export of all hazardous wastes from the Community.

II. Perhaps the most dangerous new initiative being promoted by certain members of the Council and Commission, is the introduction of dual definitions whereby waste for recycling or "further use" is treated differently from wastes bound for "disposal". This dangerous distinction not only derogates from the Basel Convention, but from past EC legislation as well. This "double dealing" allows for the creation of numerous recycling loopholes that are present in the text of the regulation. On the face of it, this may seem a prudent measure to facilitate recycling. But loopholes can be easily exploited by waste traders claiming a pretext or fate of "further use" to justify any transboundary waste movement schemes in avoidance of the real reason for waste export—the high costs of disposal in Northern Europe.

Even in legitimate recycling projects, unless there are provisions for repatriation of waste, all "further use" schemes involve waste dumping for final disposal. This is due to the fact that nothing can ever be recycled 100% and thus the residual material, often the bulk of the dangerous wastes, will be dumped on the receiving territory. For these reasons it is impossible justify retaining a dual definition.

III. The Basel Convention recognises the sovereign right of all states to declare their territory off-limits to hazardous wastes. The Council Resolution of 7 May 1990 states that Member states should move toward the goal of self-sufficiency individually. It is important that in the rush to abolish trade barriers by 1992, that we don't lose our good sense and relinquish the right of member states to refuse to be the dumping ground for wastes from the rest of Europe. The right of individual states to ban the import or export of hazardous wastes must be asserted in the text of this regulation.

IV. Finally, the European Commission proposal lacks any means of enforcement after 1992 and the impending absence of border controls. What will prevent a consignment of waste from being transported across national frontiers without any notification and documentation if there are no border police? Clearly the only hope to begin to enforce this regulation lies in its linkage to a strong, mandatory environmental audit directive which states plainly what waste streams are being produced and where all waste streams are being disposed. This combined with a real police and punitive system which would levy stiff penalties can serve to enforce this regulation. Without enforcement, a law is only waste paper.

7.1.7 Waste in the Single Market

The primary reason that problems repeatedly recur is that the EC still considers waste as a "commodity or service" that can and should be freely traded. Despite the fact that hazardous waste
has no socially redeeming value, and that it in fact presents a serious political and environmental liability to member states, the EEC still considers that the free movement of hazardous waste is of paramount importance.

Waste cannot be considered as economic "goods". It is misguided to consider free trade more important than environmental health, particularly when the EC has not established strict requirements for waste minimization to dramatically reduce the amount of waste produced within the community. However, it will never be possible to achieve complete harmonization of regulations and economic conditions within EC Member States. Thus, by allowing wastes to be transported across frontiers for reasons which will inevitably be economic reasons—not environmental ones, is to practise a policy of responsibility avoidance. Although it can be argued that legally, waste management may be considered a service which might be freely rendered, providing such services works contrary to the goals of responsibility and prevention, because prevention is a policy which by definition must be initiated at the point of generation (source reduction). It is therefore absolutely necessary to exclude wastes from the goods or services categories.

In fact, this is apparently the conclusion of the Environment Council in their recent policy decision 6 June 1990. Without setting a date, the Environment Ministers of all 12 EC Member States agreed on language stating that the EC must become "self-sufficient" in waste disposal. They also encouraged Member States to do the same:

Whereas it is important for the Community as a whole to become self-sufficient in waste disposal and it is desirable for Member States individually to aim at such self-sufficiency:

Member States shall take appropriate measures ... to ... enable the Community as a whole to become self-sufficient in waste disposal and the Member States to move towards that aim individually ...

The network [of disposal installations] must enable waste to be disposed of in one of the nearest appropriate installations.

These dual principles of "self-sufficiency" and "proximity" represent obviously necessary "barriers to free trade" and are to be lauded.

The policies of "self-sufficiency" and "proximity", taken together with the recent signing of the Lomé IV Treaty (see section a Lomé IV), argue strongly for an EC commitment to not only ban waste trade to the 69 ACP countries, but to all countries lying outside the internal market.

7.1.8 Positions of the Barcelona/EC nations

FRANCE:
During the Environment's Council's Permanent Representatives Meeting of 31 May 1990, France joined the delegations of Denmark, Federal Republic of Germany, Netherlands and the U.K in stating that in principle there must be national self-sufficiency in waste disposal as well as Community-wide self-sufficiency.68

France has announced its intention to ban all waste trade nationally. The French Minister of Environment, Brice Lalonde, stated in September 1989 that he expected that an EC accord "will soon be reached requiring each nation to treat its own wastes".69

GREECE:

On 18 March 1991 at the Environment Council of Ministers meeting, Greece, joined Italy, and Germany in proposing a ban on any exports of wastes to non-OECD countries.70

ITALY:

Europe's most prohibitive waste export law went into effect in Italy in June 1989. This export ban prohibits municipal, special, toxic, and hazardous wastes from being exported from Italy to any non-OECD country.71

SPAIN:

According to the permanent representation for Spain to the European Community in Brussels, Spain is also opposed to all shipments of waste to non-OECD countries.72

7.1.9 European Parliament

The European Parliament voted on 26 May 1989 for a total ban on hazardous waste exports to all developing countries.73

7.2 Waste Trade Prohibitions

7.2.1 The Lomé IV Convention

68Meeting Report, 31 May 1990 (01.06) (OR. f).


Although only the EC member States of the Barcelona Convention are Parties to Lomé IV, this treaty stands as an extremely significant precedent and model for other regional fora. Sixty-eight African, Caribbean and Pacific countries, the ACP group of States, are now protected from the foreign dumping of hazardous, including nuclear, waste under a trade and aid agreement between the ACP and the EEC signed on 15 December 1989.\(^1\)

Article 39, (see Annex III), of the Lomé IV treaty represent the world's most comprehensive hazardous waste trade ban. When this 10-year pact enters into force, the EC will not be allowed to ship any hazardous (including nuclear) wastes to the 68 ACP countries. Also, under this agreement, the ACP countries agreed to prohibit hazardous, including radioactive waste imports from any country.

Under the terms of the Single European Act, the treaty first had to be approved at the EEC level by, at least, 260 of the 518 Members of the European Parliament. This occurred on 16 May 1990. Now the 80 contracting Parties have a maximum period of 12 months within which to notify the competent EEC and ACP authorities that the treaty has been ratified. The treaty will come into force on the first day of the second month after all the EC member States and two-thirds or more of the ACP countries have deposited their ratification instruments.

7.2.2 The Organisation of African Unity

Africa retains the unfortunate distinction of remaining the clear first choice for the dumping of European wastes. Africa has fallen victim to some of the most infamous transshipments of wastes--Koko, Nigeria, Kassa Island, Guinea, Thor Chemical, South Africa--not to mention a constant barrage of schemes offering parcels of poison sweetened with much needed foreign cash.

Politically, Africa has accordingly been the first to respond to the threat of waste colonialism. In unprecedented numbers, African nations sent delegates to the pre-negotiations of the Basel Convention, only to have their concerns largely ignored by a handful of industrialized nations.

Following the outcome of the Basel Convention, which the African States regarded as a failure, the African States agreed to refrain from signing pending a joint position and response on that Convention and the continuing threat of waste trade. This responsibility was taken up under the auspices of the Organization of African Unity (OAU) which currently includes all African states with the exception of Morocco and South Africa. The Convention, known as the Bamako Convention, was adopted in Bamako, Mali, on January 29, 1991 (see below).

The Resolution on the Dumping of Nuclear and Industrial Wastes in Africa declares, inter alia, that "the dumping of nuclear and

industrial wastes in Africa is a crime against Africa and the African people."\textsuperscript{75}

The Resolution on the Global Convention for the Control of Transboundary Movement of Hazardous Wastes, expressed concern that the Basel Convention is "merely aimed at the regulation or control, rather than the prohibition of transboundary movement of hazardous wastes."\textsuperscript{76}

The Resolution on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in Africa, "commended member states which have promulgated laws prohibiting all forms of illegal transboundary movements of hazardous wastes into their countries and calls upon those who have not already done so to enact similar laws."

This resolution refers to the fact that following the Basel Convention, the African Group at the Convention in their disappointment over the outcome of the final Basel text, made a decision not to sign the Convention. The resolution "mandates the Secretary General of the OAU to undertake consultations with the view to adopting a common position on the Basel Convention" and "decides to set up a Working Group composed of legal and environmental experts to draw up a Draft African Convention on the Control of the Transboundary Movement of all forms of Hazardous Wastes in the Continent."\textsuperscript{77}

The African States then agreed to refrain from signing that convention pending a joint position on it and response to the continuing threat of waste trade. This responsibility was taken up under the auspices of the Organization of African Unity (OAU), which currently includes all African states with the exception of Morocco and South Africa.

The OAU has wasted little time in taking up the gauntlet laid down at Basel. In January 1991 the OAU convened a Ministerial Conference for the adoption of an African Convention (the Bamako Convention) which among other things bans all waste imports into the African Continent.

7.2.3 The Bamako Convention

This Convention, entitled "The Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous wastes within Africa" was adopted on the 29 January 1991 in Bamako, Mali.

The Bamako Convention represents what is probably the most progressive hazardous waste legislation in the world. Its provisions include:

\textsuperscript{75} CM/Res. 1153 (XLVIII), May 1988.

\textsuperscript{76} CM/Res. 1199 (XLIX), February 1989.

\textsuperscript{77} CM/Res. 1225 (L), July 1989.
* the prohibition on the import of hazardous waste, including radioactive waste;

* the prohibition on the import of hazardous substances which have been banned, cancelled or refused registration or voluntary withdrawn in the country of manufacture for human health or environmental reasons;

* a ban on the dumping and ocean incineration of waste;

* the requirement for hazardous waste generation audits;

* the imposition of strict, unlimited, joint and several liability on hazardous waste generators;

* the call for the issue of transfer to Africa of polluting technologies to be under systematic review;

* the commitment of African States to "strive and implement the preventive, precautionary approach to pollution problems which entails...preventing the release of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm.

The Convention was signed in Bamako, Mali on 29 January 1991 and is now signed by 16 countries and has yet to be ratified by any country. It will enter into force after being ratified by 10 OAU Member States.

7.2.4 National Bans

Many Mediterranean nations have already sought to ban imports or exports of hazardous wastes. By June 1990, at least six non-OECD countries of the region had banned waste imports, while seven non-OECD countries remain vulnerable (see Table I). Meanwhile only Italy has an export ban among the OECD countries (see Table II). Globally, at least 77 countries have banned all foreign waste imports (see Table III).

An excellent example of national legislation (adopted by the Dominican Republic) banning waste imports can be found in ANNEX II.

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<table>
<thead>
<tr>
<th>National Law or Policy</th>
<th>OAU Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
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<tr>
<td>Algeria</td>
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<td>Cyprus</td>
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<td>Egypt</td>
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<td>Syria</td>
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<td>Tunisia</td>
<td>0</td>
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<tr>
<td>Yugoslavia</td>
<td>X</td>
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</tbody>
</table>

"X" indicates a ban or prohibition policy

"0" indicates no known ban or prohibition policy
**TABLE II**

OECD MEDITERRANEAN COUNTRIES WHICH BAN HAZARDOUS WASTE EXPORTS TO NON-OECD COUNTRIES

<table>
<thead>
<tr>
<th>National Bans</th>
<th>National Policy</th>
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<tbody>
<tr>
<td>France</td>
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<tr>
<td>Italy</td>
<td>X</td>
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<td>Greece</td>
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<td>Spain</td>
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<tr>
<td>Turkey*</td>
<td>?</td>
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</tbody>
</table>

*Turkey does have a ban on importation of hazardous wastes

"X" indicates a ban or prohibition policy

"0" indicates no known ban or prohibition policy
TABLE III

DEVELOPING COUNTRIES WHICH HAVE BANNED WASTE IMPORTS

<table>
<thead>
<tr>
<th>Algeria</th>
<th>Libya</th>
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<tbody>
<tr>
<td>Angola</td>
<td>Madagascar</td>
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<tr>
<td>Antigua and Barbuda</td>
<td>Malawi</td>
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<td>Bahamas</td>
<td>Mali</td>
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<td>Barbados</td>
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<tr>
<td>Belize</td>
<td>Mauritius</td>
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<td>Mozambique</td>
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<td>Botswana</td>
<td>Namibia</td>
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<td>Niger</td>
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<td>Burundi</td>
<td>Nigeria</td>
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<td>Cameroon</td>
<td>Papua New Guinea</td>
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<td>Cape Verde</td>
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<td>Philippines</td>
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<td>Rwanda</td>
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<td>Comoros</td>
<td>Sao Tome and Principe</td>
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<td>Senegal</td>
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<td>Cote d'Ivoire</td>
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<td>Sierra Leone</td>
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<td>Solomon Islands</td>
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<td>Dominican Republic</td>
<td>Somalia</td>
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<td>Egypt</td>
<td>St. Christopher and Nevis</td>
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<td>St. Vincent &amp; Grenedines</td>
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<td>St. Lucia</td>
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<td>Trinidad and Tobago</td>
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<td>Guinea</td>
<td>Tunisia</td>
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<td>Kiribati</td>
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<td>Lebanon</td>
<td>Zaire</td>
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<td>Lesotho</td>
<td>Zambia</td>
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<tr>
<td>Liberia</td>
<td>Zimbabwe</td>
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</tbody>
</table>
8. OTHER RELEVANT FORA, DECISIONS AND POLICIES

8.1 London Dumping Convention

At the Thirteenth Consultative Meeting of Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London 29 October -2 November 1990) contracting parties agreed on a resolution "to prohibit or not to permit the export of wastes for dumping at sea, particularly those containing substances referred to Annexes I and II of the London Dumping Convention to States not Party to the Convention".79

Regional parties of the London Dumping Convention include: France, Greece, Italy, Lybia, Morocco, Monaco, Spain, Tunisia and Yugoslavia.

8.2 The Non-aligned Movement

The 9th Non-Aligned Movement summit meeting in September of 1989 produced a statement on the environment which, inter alia, "called for the adoption of effective international measures, including conventions and other relevant legal instruments, to prohibit the dumping of toxic and other hazardous wastes in the territories of other countries. They also proposed that the developed countries should, in the meantime, adopt rigorous administrative measures and legislation to ban the export of toxic and other hazardous wastes to the territories of other, especially developing countries".80

8.3 The World Bank

World Bank President, Barber Conable on 16 February 1989 stated that "Industrial states have the capacity to dispose of these poisons. they must not be permitted simply to dump them on developing nations that lack even the means to handle their own pollution".81

8.4 U.N General Assembly

On 20 December 1988, the U.N General Assembly adopted resolution 43/212, which among other things, urged all States, bearing in mind their respective responsibilities, to take the necessary legal and technical measures to halt and prevent the illegal international traffic in, and the dumping and resulting accumulation of, toxic and dangerous products and wastes; urged all States generating toxic and dangerous wastes to make every effort to treat and dispose of them in the country of origin to the maximum extent possible consistent with environmentally sound disposal".82


80 NAC 9/EC/Doc. 8/Rev. 4.

81 Reuters, 16 February.

9. CONCLUSION -- RATIONALE FOR ESTABLISHING A PROTOCOL TO PREVENT THE TRANSBOUNDARY MOVEMENTS OF HAZARDOUS WASTE IN THE MEDITERRANEAN SEA REGION

Notwithstanding the efforts of the EC, the Basel, Lomé IV, and Bamako Conventions, and certain national legislation, the threat posed by the international trade in hazardous, including nuclear, wastes in the Mediterranean Region is very real. All countries of the region, particularly non-OECD countries, remain highly vulnerable to foreign waste traders. Most countries in the region do not have national or regional legal instruments prohibiting waste imports or exports. Strong, region-wide legal accords are necessary to protect the Mediterranean region from the deadly business of hazardous, including nuclear, waste trade and the threat of pirate ocean dumping.

The increasing waste treatment capacity shortfall in the United States and Europe combined with a lax legal regime to control the exports of waste from those countries, create a huge impetus to export.

The Barcelona Convention, as the only convention dealing exclusively with the issue of pollution problems affecting the Mediterranean region, is well positioned to protect the coastal countries of the Mediterranean Sea from becoming victims of waste exportation and dumping.

This paper argues for the drafting of a protocol to specifically ban the transboundary movement of hazardous, including nuclear, waste from developed to developing countries, and to take steps to prevent and combat pirate ocean dumping within the region as logical developments of the Barcelona Convention, consistent with other national, regional and global initiatives.

The priorities for the Barcelona Convention in halting the international trade in hazardous, including nuclear, wastes should consist of the following principles:

1. To prevent wastes from moving within the region for economic reasons, for example to avoid environmental costs at the expense of poorer economies or regulatory structures—as in Eastern European or developing countries. Economically motivated movement of hazardous wastes works in direct contravention to the goal of waste minimization at source, clearly stated in the Basel Convention, Article 4, Paragraph 2(a): Each party shall take the appropriate measures to ensure that the generation of hazardous and other wastes within it is reduced to a minimum...

2. To prevent and combat the pollution related to transboundary movement and disposal of hazardous, including nuclear, wastes in the Mediterranean Sea, for example from land-based disposal operations, as well as accidental spills or deliberate dumping at sea.

It is concluded that the above two goals will best be served by certain prohibitions (bans) rather than with a regime of notification and consent such as "prior informed consent" (PIC). Within such a system as PIC, wastes can still move with facility for
purely economic reasons.

Thus, this document argues strongly for taking steps similar to those taken already by the Lomé IV Convention, and the Bamako Convention, in choosing the route of strict waste import and export prohibitions.

Such a move would be entirely consistent with the global Basel Convention. That Convention foresaw the need for certain regional bodies or other groups of states to take stronger measures than the Basel Convention’s obligations to ensure greater protection by allowing bilateral or multilateral agreements

"which are not less environmentally sound than those provided for in this Convention in particular taking into account the interests of developing countries" (Article 11, Basel Convention).

Basel reiterates this concept in Article 4, paragraph 11:

"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."

This document argues that any legal instrument to combat waste trade in the region be no less than an immediate suspension of the import and export of all hazardous, including nuclear wastes from developed to developing countries.

All Contracting Parties of the Barcelona Convention are urged to make a formal decision to prepare a protocol to that Convention, which would take account of the special situation in the Mediterranean Sea region and as a minimum, prohibit all transport of hazardous, including nuclear, wastes from developed to developing countries.
ANNEX I -- BAMAKO CONVENTION, ARTICLES 2-4

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, cancelled 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 the Secretariat 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, labelled, and transported in conformity with generally accepted and recognized international rules and standards in the field of packaging, labelling, 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.

4. Furthermore

(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.
ANNEX II -- DOMINICAN REPUBLIC, NATIONAL LEGISLATION

Law Number 218

The National Congress
In the Name of the Republic

Considering: That it is necessary to protect the country from the introduction to its territory of substances that threaten the life and health of its inhabitants, as well as of its flora and fauna;

Considering: That in the country pharmaceuticals and pesticides are being used freely that, due to their high level of danger, have been banned, not permitted, or have been taken out of the use for which they had been originally patented;

Considering: That many of these products and substances can cause to the population grave or incurable illness, epidemics, permanent lesions in the vital systems and genetic defects.

In view of: paragraph 17 of article 8 of the Constitution of the Republic;

In view of: law number 4471 of May 29, 1956, that institutes the Code of Public Health;

In view of: law number 311, of May 22, 1968, that regulates the management of pesticides,

Has Given the Following Law:

Article 1.- It is forbidden to bring into the country by any means, human or animal excrement, domestic or municipal wastes and their derivatives, muds or sewage sludges, treated or not, as well as toxic wastes derived from industrial processes, that contain substances that could infect, contaminate and/or degrade the environment and put in danger the lives and health of the inhabitants, including chemical compounds and combinations, traces of heavy metals, residuals of radioactive materials, undetermined acids and alkalis, bacteria, viruses, eggs, larvae, spores, fungus and phytopathogens.

Article 2.- It is prohibited to produce, import or market pharmacological products and pesticides whose use is banned, severely restricted or discontinued, because of their danger, by the health authorities and the environmental protection authorities in the country where the original patent has been registered.

Article 3.- Pharmaceuticals and pesticides the use and selling of which are restricted in their countries of origin, due to their potential danger, may only be marketed under the strict control of the Secretaries of State, of Public Health and Social Assistance,
Paragraph: - It is prohibited to import pharmaceuticals developed with human blood coming from countries that are affected by sicknesses that can be transmitted to a recipient patient as in the case of the use of Gammaglobulin.

Article 4.- The Executive Power will be entrusted with developing the corresponding regulations to duly implement that which this law requires.

Delivered in the Meeting Room of the Chamber of Deputies, Palace of the National Congress in Santo Domingo de Guzmán, National District, Capitol of the Dominican Republic, on the 13th day of the month of March in the year 1984: 141 years after the Independence and 121 years after the Restoration.

Hugo Tolentino Dipp
President

Tony Raful Tejada
Secretary

Carlos B. Lalane Martinez
Secretary

Delivered in the meeting room of the Senate, Palace of the National Congress, in Santo Domingo de Guzmán, National District, Capital of the Dominican Republic, on the 22nd day of the month of May in the year 1984, 141 years after the Independence and 121 years after the Restoration.

Jacobo Majluta Azar
Presidente

Rafael Fernando Correa Rogers
Secretario

Jose Antonio Constanzo Santana
Secretario

SALVADOR JORGE BLANCO
President of the Dominican Republic

In exercise of the rights bestowed upon me in Article 55 of the Constitution of the Republic.

I proclaim the present law and mandate that it is published in the Official Gazette for its acknowledgement and completion.
Given in Santo Domingo of Guzmán, National District, Capital of the Dominican Republic, on the 28 day of the month of May in 1984; 141st year after Independence and the 121st year after the Restoration.

SALVADOR JORGE BLANCO
ANNEX III -- LOME IV CONVENTION, ARTICLE 39
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ARTICLE 39

1. The Contracting Parties undertake, for their part, to make every effort to ensure that international movements of hazardous waste and radioactive waste are generally controlled, and they emphasize the importance of efficient international co-operation in this area.

With this in view, the Community shall prohibit all direct or indirect export of such waste to the ACP States while at the same time the ACP States shall prohibit the direct or indirect import into their territory of such waste from the Community or from any other country, without prejudice to specific international undertakings to which the Contracting Parties have subscribed or may subscribe in the future in these two areas within the competent international fora.

These provisions do not prevent a Member State to which an ACP State has chosen to export waste for processing from returning the processed waste to the ACP State of origin.

The Contracting Parties shall expedite adoption of the necessary internal legislation and administrative regulations to implement this undertaking. At the request of one of the Parties, consultations may be held if delays are encountered. At the conclusion of such consultations each Party may take appropriate steps in the light of the situation.

2. The Parties undertake to monitor strictly the implementation of the prohibition measures referred to in the second paragraph of paragraph 1. Should difficulties arise in this respect, consultations may be held subject to the same conditions as those provided for in the second paragraph of paragraph 1 and with the same effect.

3. The term "hazardous waste" within the meaning of this Article shall cover categories of products listed in Annexes 1 and 2 to the Basle Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

As regards radioactive waste, the applicable definitions and thresholds shall be those which will be laid down in the framework of the IAEA. In the meantime, the said definitions and thresholds shall be those specified in the declaration in Annex VIII to this Convention.
ANNEX IV -- RECOMMENDATION OF THE CONTRACTING PARTIES TO THE
CONVENTION FOR THE PROTECTION OF THE MEDITERRANEAN SEA
AGAINST POLLUTION AND ITS RELATED PROTOCOLS
(Athens, 3-6 October 1989)

RECOMMENDATIONS APPROVED BY THE CONTRACTING PARTIES
(From MAP Report, UNEP(OCA/MED IG.1/5, Annex V)

A. IMPLEMENTATION OF THE BARCELONA CONVENTION AND THE PROTOCOL
ON DUMPING

The Contracting Parties adopt the following recommendations.

3. LEGAL COMPONENT

3.1 Authorize the secretariat to address an appeal to the
Contracting Parties urging them to become signatories to
and to hasten the process of ratification of the Basel
Convention on the Control of Transboundary Movement of
Hazardous Wastes; invite the secretariat to prepare within
six months an assessment of the nature of such movements
in the Mediterranean including the carriage of hazardous
wastes by ships transiting the Mediterranean sea; request
the secretariat to suggest a mechanism to assist
Contracting Parties in monitoring the movement of hazardous
wastes in and through the Mediterranean and their disposal;
in the light of the assessment proceed with the preparation
of a draft legal instrument or a protocol on the subject
applicable to the Mediterranean region.