Enforcement of and Compliance with MEAs: The Experiences of CITES, Montreal Protocol and Basel Convention

Volume II

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Compiled and Edited By
Donald Kaniaru and Elizabeth Mrema

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The Growth and Control of Illegal trade in Ozone-depleting Substances

Prepared by
Duncan Brack[1]
Royal Institute of International Affairs

1 INTRODUCTION

The Montreal Protocol on Substances that Deplete the Ozone Layer has proved to be one of the great success stories of international diplomacy.

Negotiated in 1987 in order to prevent damage to the earth's stratospheric ozone layer caused by the use of chlorofluorocarbons (CFCs) and other ozone-depleting substances (ODS), it has been revised four times in the subsequent ten years. On each occasion its control schedules have been tightened. Whereas the original Protocol envisaged only a 50% reduction in CFC use by the end of the century, 100% phase-out was in fact achieved in the industrialised world by the end of 1995. The production and consumption of all categories of ODS is now scheduled to come to an end by 2030 in the industrialised world, and by 2040 in the developing world – and it is quite likely that these dates may be advanced yet further.

The results have been seen in the anticipated recovery of the ozone layer. Atmospheric concentrations of some of the controlled substances have observably fallen, and peak total chlorine and bromine loading in the troposphere (the lower atmosphere) appears to have peaked in the last two or three years. Ozone depletion should therefore reach its worst extent around the turn of the century, due to the 3–5 year time lag in the diffusion of the chemicals into the stratosphere. All being well, ozone levels are projected to recover to pre-industrial concentrations by the middle of the next century.

The development of the ozone regime in recent years has accordingly focused more on questions of implementation rather than on the further negotiation of control schedules. Among these issues, the problem of illegal trade has become steadily more significant.

2 INCENTIVES FOR ILLEGAL TRADE

If governments place a ban on the production or use of any substance, provided that the alternatives are more expensive, one is almost bound to see the development of a black market and illegal trade. This is hardly a new phenomenon in history.

In this instance, many of the alternatives developed to CFC and other ODS use have *not* in fact, proved to be more expensive – indeed, they have not only been non-ozone depleting, but also, frequently, more effective and cheaper as well. (Technological innovation resulting from the regulatory stimulus provided by the Montreal Protocol has been one of the key elements in its success.) This is true particularly in the solvents and aerosol sectors, and also, though to a lesser extent, in foams. In general, however, it has not proved to be the case in the refrigeration or fire-fighting sectors.

Even here, the CFC alternatives themselves are not usually more expensive. The problem arises because generally the equipment – the refrigerator or air conditioning system, for example – cannot use the alternatives without some degree of adaptation, or 'retrofitting', or sometimes complete replacement. For example, a mobile air conditioning system (MACS) fitted in an American car might cost between $200–300, or sometimes as much as $800, to retrofit or replace. It currently costs about $100 to acquire a 30lb cylinder of illegal CFCs, which contains enough refrigerant to service the system many times over.

So the incentive for continued use is clear. It will remain until all CFC-using machinery is finally replaced with newer equipment which can function on CFC alternatives – though it should be noted that the ready availability of illegal CFCs will itself inhibit the replacement process, by effectively extending the operating life of the equipment involved. The same is true, of course, of any category of ODS in widespread use. Most cases of illegal trade detected so far have involved CFCs, but an increasing proportion include halons. As phase-out dates for methyl bromide and HCFCs approach, it can be anticipated that illegal trade will develop in these substances as well.

[1] Originally prepared for Taipei International Conference on Ozone Layer Protection, 9-10 December 1997.

3 SOURCES

The problem of illegal trade in ODS is complicated by the fact that there are numerous potential sources of the material. These can be divided into three categories:

- Legal production in Article 5 countries
- Illegal production in non-Article 5 countries
- Legal production in non-Article 5 countries

Production in Article 5 countries

Under the terms of the Montreal Protocol, Article 5 parties (developing countries) are permitted to continue to produce and consume CFCs and halons (Annex A groups I and II ODS) until 2010; no controls apply to them at all until 1999. In fact, ODS production in Article 5 countries has grown much more rapidly than was envisaged by the negotiators of the Protocol. Between 1986 and 1995, CFC production increased from 44,000 to 108,000 ODP-tonnes, and halon production from 11,000 to 41,000 ODP-tonnes. Over the same period, CFC consumption grew by nearly 40%, from 125,000 to 170,000 ODP-tonnes (CFCs) though halon consumption only by about 5%, from 35,000 to 37,000 ODP-tonnes.

In 1995, six developing countries produced CFCs: Brazil, China, India, Korea, Mexico, and Venezuela. China accounted for over 40% of the total, with India producing about 20% and Mexico about 15%. While production in Latin America has remained roughly stable over the last ten years, growth in the Asian producers – which, unlike the former group, are characterised by domestic industries rather than subsidiaries of transnationals – has been explosive, rising by more than 400%. Developing country consumption is of course much more widely spread, but once again, China accounts for the lion's share, at nearly 45% of the total, and Asia as a whole for about three-quarters.

Although developing country production of CFCs is still lower than consumption – i.e. they are net importers – the relatively easy availability of CFCs in some countries facilitates illegal trade. Whereas Russia has been the main source of illegal CFCs for most of the 1990s (see below), the problem does now seem to have shifted to Mexico (for the US) and China (for Europe and Taiwan).

Production of halons in developing countries is limited only to Asia; China is responsible for about 90% of the total, and growth in production has only occurred in this country. Consumption is also relatively more concentrated than for CFCs, and once again more so in China (which in 1995 consumed 65% of total developing country consumption) and Asia in general (80%). With a few minor exceptions, all developing countries other than Algeria, China, India and Thailand have reduced halon consumption over the last decade. Unlike the CFC situation, developing countries in aggregate now produce a greater volume of halons than they consume.

Illegal production in non-Article 5 countries

A number of 'countries with economies in transition' (CEITs) – i.e. Eastern European and former Soviet states – have experienced difficulties in complying with the terms of the Montreal Protocol. Of these, the most serious case, and the only producer, is the Russian Federation. The Russian Government failed to meet halon phase-out by the end of 1994 and admitted in May 1995 that it would be unable to achieve CFC phase-out by the end of the year. Although the parties to the Protocol did not agree to Russia's request for a formal four-year deferral of the phase-out targets, they have recognised that the problem is largely unavoidable due to the country's current economic difficulties. The emphasis since has been on working with the Russian government to improve the situation (including the quality of data reporting) rather than punishing it. The provision of financial assistance from the Global Environment Facility (GEF) was, however, made contingent on accurate data reporting.

In 1995 the Russian government claimed production of 39,000 ODP-tonnes of CFCs, and consumption of 21,000 tonnes. Although Russia has historically supplied CFCs to other CEITs, Russian production was still 13,000 ODP-tonnes higher than total CEIT consumption. Furthermore, external sources estimated a total production capacity of 100,000 tonnes, with actual Russian production possibly as high as 70,000 tonnes. Reported halon production and consumption were both much lower, at just over 1,000 ODP-tonnes.

This continued production and consumption clearly delays the recovery of the ozone layer as well as providing a ready source of material for illegal exports. It may well be that the Russian government is itself unable to control its industries – individual plants may simply produce above their official quota, and sell the surplus on the black market. Attempts at control have, however, been made, and 1996 production was reported as 17,000 ODP-tonnes, with eventual phase-out scheduled for the year 2000. Export and import controls were applied from July 1996 and exports restricted to Article 5 countries (a legal destination) and former Soviet non-Article 5 countries (specifically permitted by a decision of the Meeting of the Parties in 1995). Efforts were under way to set up recovery and recycling systems, though between January and September 1997 only 100 tonnes were actually recycled.

In response to these efforts, the 1997 Meeting of the Parties decided that financial assistance could be made available for production and consumption phase-out; $60m of GEF funding has been earmarked so far. The costs of total phase-out is estimated at $170–175m, of which Russian industry is itself expected to provide about $70m. This leaves a shortfall of about $40m (later reduced to $27m), and in 1996 the World Bank published a proposal for a Special Initiative for Supplementary Funding to raise this amount to phase out most production capacity over two years. One substantial benefit of this initiative, if it is implemented, is that monitoring would be much easier; the plan includes the concentration of all production capacity at just one plant after 18 months. Funding from donors is expected to be virtually complete in the next few months.

Legal production in non-Article 5 countries

CFCs and halons may also be legally available in industrialised countries, even after phase-out. Non-Article 5 parties to the Montreal Protocol may produce and consume after phase-out for three purposes:

- For use as feedstock (where the chemicals are completely transformed in the process into non-ozone-depleting substances) or as process agents (where the ODS are not completely transformed but are not emitted).

- For essential use exemptions agreed by successive meetings of the parties; currently, these include CFCs for use as propellants in metered does inhalers for treating asthma, together with small amounts of CFCs for laboratory and analytical uses, and a small volume of halons for fire-fighting purposes in Russia.

- For export to developing countries to meet their 'basic domestic needs'; the Protocol permits production of up to 15% of the level in the reference year (1986 for CFCs and halons) for this purpose.

In addition, ODS produced before the phase-out dates may be still be legally sold and consumed in non-Article 5 countries even after phase-out. These may be available from stockpiles or 'banks', or may be recovered from old equipment and recycled.

As with developing country production, these exceptions to phase-out provide a variety of sources for illegal consumption, and a wide range of opportunities for concealment or disguise. Unlike the situation of illegal drugs, for example, CFCs or halons available for sale in an industrialised country cannot automatically be assumed to be of illegal origin.

4 METHODS

How is the illegal trade carried out? It is possible to identify at least four major potential methods.

1 CFCs and halons can be mislabelled as legal materials such as HCFCs, for example, or hydrocarbons. It is impossible to detect the presence of ODS by simple inspection, since the substances are colourless, odourless gases at room temperature. Chemical analysis, either in a laboratory or by a hand-held testing kit, is required to detect their presence.

Relatively simple tests, such as boiling point or pressure checks, may help pinpoint discrepancies between the claimed and actual contents of a pressurised cylinder. These are not always, however, foolproof, as smuggling techniques have become increasingly sophisticated. Illegal material entering Taiwan, for example, has had nitrogen added to the cylinders to raise the internal pressure of CFC-12 to what would be expected for HCFC-22, a legal ODS.

In a similar vein, the illegal materials can simply be hidden. Another innovation detected in Taiwan has been the fitting of extra jackets containing legal substances around cylinders full of illegal CFCs to mislead customs officers taking samples – the equivalent of the more traditional smuggler's false-bottomed suitcase.

2 Virgin ODS can be disguised as recycled material. It is quite easy to deliberately contaminate virgin CFCs with, for example, a small amount of water vapour, to make them appear as genuine recycled material. In 1995, the Dutch Environment Inspectorate discovered several dozens of tonnes of virgin CFCs deliberately labelled as recycled. Adulteration of this sort is virtually impossible to detect, even by chemical analysis.

3 Goods ostensibly bound for trans-shipment through a non-Article 5 country to an Article 5 one can be diverted into the domestic market instead of being re-exported. In the EU, for example, complete documentation is not required at point of entry, only at point of destination, and there is a period of six months before the material must be re-exported. The European Commission estimated that between 80,000 and 100,000 shipments (out of a total of 18 million) in transit in 1994 did not receive proper confirmation from the final destination customs authorities.

Similarly, at least in the EU, goods imported under the procedure known as 'inward processing

relief' (IPR) may be diverted into the domestic market. IPR is a procedure under which imports are processed in some way – usually simply being repackaged, for example in smaller containers – and then re-exported; no duty is payable on the goods, hence the term 'relief'. Since there is again a time lag between the reporting required at points of import and ultimate destination, or re-export – in fact, no limit is written into the legislation, but 18 months is a generally accepted rule of thumb – there is a window of opportunity for diversion of the material into the EU domestic market. The importing company may be eventually caught up with, but it may have disappeared, or 'gone bust', in the interim. Or the exported containers may not be completely full.

4 ODS can be imported for legal purposes, such as use as feedstock or process agents, or for essential use exemptions, and then illegally diverted into domestic markets. This is probably the least likely of the four routes outlined here, particularly for essential use exemptions, where purity requirements are such as to require strict monitoring of the source of the ODS.

In all these cases, the source of the illegal material may often be concealed from its final user. It can be sold as if it were recycled, or if it originated from stockpiles, for which, at least in the EU, no central data has been kept (the US, since it applies a floor tax to stockpiled products, does possess better data).

5 THE RECORD

Illegal trade, by definition, is difficult to identify and quantify. Nevertheless, there is growing evidence of smuggling of CFCs and halons throughout the world.

US

The hardest evidence is available from the US, which has experienced more acute problems than elsewhere, for two reasons. First, 90% of US automobiles are fitted with MACS, compared to about 10% of European vehicles. This leads not only to a larger demand for refrigerant fluids, but also to a network of small users (garages servicing and repairing cars) among whom legislation is more difficult to promote, monitor and enforce. In early 1995, a year before phase-out, an estimated 100 million US autos were fitted with air conditioning systems which could not be adapted for CFC substitutes.

Second, the US introduction in 1990 of a CFC excise tax at the point of sale or first use created an additional incentive for illegal trade, in the form of tax avoidance. The value of the tax, which increased year on year, substantially exceeded the cost price in 1995, the last legal year of production; a pre-tax price of about $2 per pound was increased to a post-tax retail price of $7.35. One of the first indications of the extent of the black market was the failure of CFC prices quoted to retailers to rise in line with these excise tax increases.

This combination of circumstances has resulted in a black market in CFCs in the US variously estimated at between 20 and 40 million pounds a year (about 10,000–20,000 tonnes) in 1994 and 1995. If even the lower figure was accurate in 1994, it represented about 20% of all virgin CFC-12 imported into the US in that year. It is believed that in terms of total contraband, in those two years the value of illegal ODS smuggled into Miami was second only to that of cocaine. Entry through Miami was relatively easy to conceal, since the port acts as a transit point for import and legitimate re-export to developing countries in Latin America.

This volume of material was worth between $150 and $300 million at legitimate prices. In one of the most dramatic cases to come before a court, on 29 August 1995 a Ms Irma Henneberg, the manager of a Florida shipping company, was found guilty on 34 charges relating to the false manifesting of cargo to be shipped from Miami. False manifests were filed covering 209 cargo containers, holding almost 4,000 US tons of CFC-12 with a retail value of about $52m. Inspection of the outbound vessels supposedly re-exporting the CFCs from the US to developing countries revealed that the cargo containers were not aboard, a conclusion supported by the fact that some of the manifests claimed a greater number of containers per vessel than the ship could actually carry. Henneberg was eventually sentenced to a fine of $10,000 and 57 months' imprisonment, together with restrictions on future employment.

In a more recent case, in August 1997 three individuals and the company they worked for, Refrigeration USA, were sentenced on charges of smuggling 4,000 US tons of CFC-12 into the US. The CFCs had been purchased in Europe, with payments being made into accounts opened under fictitious names in the Turks & Caicos Islands, Switzerland and the Channel Isles. Nominee corporations in the Turks & Caicos were used to conceal the import of the material and the accompanying tax evasion of more than $30 million. The individuals concerned were sentenced to imprisonment or probation plus fines; the company was required to pay a fine of over $37 million. Proceeds of the illegal trade, including property and bank accounts in London and Miami, and 11,200 30-pound cylinders of CFC-12, were seized.

Enforcement action on the part of the US authorities was perhaps a little slow to begin, but has since proved very effective. In response to persistent pressure from industry, the US government established an inter-agency task force in October 1994, involving the Environmental Protection Agency (EPA), Customs Service, Internal Revenue Service and the Departments of Commerce and Justice. The main route for US smugglers seems to have been fraudulent documentation, and the Customs investigations codenamed 'Operation Cool Breeze' have concentrated resources on tracking imports, ensuring that licences for import or trans-shipment were present and genuine.

By mid 1997, over 30 individuals had been convicted of smuggling or diverting CFCs into the US. Since late 1994, Customs has made 662 seizures of illegally imported ODS, and 2 million pounds of illegal CFCs (about 1000 tonnes) have been impounded. Just six of the cases brought involved the entry of 6,000 tonnes of illegal materials. Industry estimates for the total volume of illegal trade in 1994–95 vary between 10–20,000 tonnes per year, though EPA put this at 6,800-13,080 tonnes. Almost all of this material was CFC-12, the main refrigerant used in MACS.

The volume of material seized more recently has fallen, it is believed in reaction to this enforcement action. EPA estimate the volume of illegal trade at 4,500–9,000 tonnes per year for 1996 and 1997. Again, most of it is CFCs, but some is now halons, a more serious threat to the ozone layer because of their much higher ODPs. The focus of illegal activity in the US has also extended beyond the Atlantic seaboard. A co-ordinated series of enforcement activities in January 1997 saw more than a dozen businesses and individuals charged with illegal trade; points of entry included Los Angeles, Miami and several locations along the Mexican border. Smuggling activities from Mexico are characterised by large numbers of instances of illegal trade involving quite small quantities – in many cases simply the amount that an individual can carry or conceal within their hand luggage or vehicle.

The movement of CFC prices also indicates that enforcement actions are having an effect. The failure of CFC prices to rise much during 1995 as production declined towards zero was a strong indication of the availability of illegal material. But between April and July 1996, the price of a 30lb cylinder of CFC-12 rose from about $250 to about $800, before settling down to somewhere around $500–600; it then fell slightly further as autumn temperatures reduced the need for air conditioning. Some areas experienced spot shortages of CFCs, and thefts of CFC containers from shops and garages became more common. The rate of retrofitting and replacement of CFC-using equipment speeded up, as one would expect; obviously, when CFCs were easy and cheap to get hold of, there was little incentive to undertake the investment necessary. The CFC-12 price is now (autumn 1997) about $430, but demand, at least for legal material, has virtually disappeared, as alternatives have become more widespread. The price of conversion kits for MACS has fallen to about $100, and there are now more drop-in replacements for CFC-12 available.

The main origin of illegal imports to the US for 1994–95 appears to have been Russia, the CFCs being trans-shipped through or purchased in Europe. One of the cases brought to court, however, involved CFCs of Indian origin. In 1996–97, two other sources have become more important. Imports to the west coast of the US seem mostly to originate in China, and it is suspected that China is also the source of the increasing volumes of halon imports. Although no prosecutions have yet been made for illegal trade in halons, EPA is concerned about the ready availability of so-called 'recycled' halons, and about the increase in the number of petitions from companies wishing to import them. The second new source is Mexico, where it is suspected that CFCs produced legitimately in the Allied Signal plant in Qimobasicos are being illegally imported into the US – though Allied Signal deny this, and believe that the source is more likely to be imports from other Latin American countries, or the US. Mislabelling of imports is now becoming more common, and US Customs now takes samples of shipments for analysis where they have grounds for suspicion.

Taiwan

Taiwan has also experienced illegal trade but, as in the US, the authorities have responded positively under pressure from industry. Up to September 1997, a total of 270 tonnes of ODS have been impounded in 16 seizures and destroyed by incineration. As in the US, the material involved is mostly CFC-12, and the destination probably for use in MACS (which are fitted in three million cars in Taiwan). Also as in the US, the best guess is that the material detected represents perhaps about 10% of the total of illegal imports. The main source is believed to be China, largely since it is a major and neighbouring producer.

Unlike the US, however, where until recently false documentation had been the major problem, in Taiwan, illegal imports have mainly been disguised as legal substances. A wide variety of imaginative methods have been used by smugglers, as indicated above. Customs has co-operated well with the chemicals industry in Taiwan in developing detection techniques, and dubious cases are referred to industry labs for full analysis. Another innovation has been cash rewards for customs officers who detect smuggling, provided by the Environmental Protection Agency. Imports of

recovered and recycled CFCs are now not permitted because of problems of detection.

In October 1996 the Association of Ozone Layer Protection in Taiwan, a coalition of industry, government, academic and research organisations established in 1992, convened a meeting to raise the profile of the issue and call for further action. One of their requests was for criminal penalties for illegal import and sale, in addition to the existing civil penalties (fines) and confiscation of contraband.

Europe

European authorities have been much slower to take action than in the US or Taiwan. Until July 1997, there was no high profile arrest and conviction for illegal trade, and customs and other enforcement authorities seemed disinclined to accept, or even to investigate, the extent of the problem. This was, of course, a circular problem – there was no hard evidence of illegal trade because enforcement authorities had not looked for it, but until there was hard evidence, they did not want to look for it.

The scale of the problem was always likely to be lower in the EU in any case, for the simple reason that only about 10% of European cars are equipped with MACS – though that proportion is growing. The EU also phased out CFC use a year earlier than the rest of the world, at the end of 1994, and it could be expected that the rate of replacement and retrofitting of machinery would be similarly accelerated. UK Customs, which carried out an assessment exercise in the first half of 1997, concluded that although there probably was some small-scale illegal trade in the UK, there was no evidence of large-scale movement of material, and the total size of the refrigeration market – 600 tonnes in 1995 – was so small as to make significant smuggling quite unlikely.

Even before summer 1997, however, there was much circumstantial evidence for illegal trade – probably not on the US scale, but perhaps not far behind. There were four reasons to suspect its presence.

1 The simplest reason is that much the same incentives exist in the EU as do in the US and other industrialised countries which have phased out consumption and production of CFCs. Although MACS are less plentiful, there are still many refrigeration and air conditioning systems which need regular servicing and refilling: in offices, supermarkets, shops, and so on.

2 There is plenty of evidence of *availability* of material: offers of CFCs for sale to European companies. In summer 1997, the Environmental Investigation Agency (a British NGO) created a dummy company, Trans-Cool Trading, to trawl for offers of sale of CFC-11 and -12, HCFC-22 and halon-1301 for refrigeration. Within days of the initial contacts, a series of faxes, phone calls and emails were made to the ghost office; although some asked the right questions about whether the necessary licenses had been obtained, many simply supplied a price and requested a delivery location.

The offers originated mainly from European and Chinese, and some Indian, companies. Western European (frequently Spanish) enterprises offered ODS from (or ostensibly from) China; Eastern European usually from Russia. It is worth quoting one of the communications, from Ningbo Sino-Resource Import Export of Zhejiang. Queried about import restrictions on Chinese CFCs, the President of the company, Joe Koman, replied: 'Frankly speaking we are supplying F12 [CFC-12] overseas. However some clients ask us to reduce purity and make F12 like to be recycled for the sake of import licence. The above is our secret between you and me. Please do not leak it out.'

Of course, an *offer* of sale is not in itself illegal, and if Chinese or Russian CFCs were imported and then re-exported to a developing country, that would not be illegal either. But there does seem to be no shortage of supply, or of suppliers willing to disguise their product.

3 As in the US, the behaviour of CFC prices suggests the presence of illegal supply. Despite EU phase-out at the end of 1994, the price of CFC-12 in Europe failed to rise over the succeeding three years by anything like the increase seen in the US in the summer of 1996: it has increased by maybe two or three times, depending on use and volume. The price of CFC-12 in Spain actually fell by about 20% in summer 1996 and has not increased since. In comparison, however, the price of R-502, which is a blend of CFC-115 and HCFC-22, has risen since phase-out by a much greater amount, about 12 times. CFC-12 is manufactured in Russia; R-502 is not.

If prices are low, then either supply is higher than expected or demand is lower. It is of course possible in theory that supply is remaining high because of material being released from stockpiles of CFCs produced before phase-out. Data on stockpiles is not collected centrally, yet European industry believes stockpiles of the size necessary to keep prices down to this extent do not exist in Europe, and if they did would tie up far more

pressurised cylinders than are known to be in circulation.

4 Is demand for CFCs lower than expected? The final reason for suspecting that much illegal trade is occurring is that use is not lower. There has been little demand for retrofitting, except in machinery which uses R-502. One of the conclusions of a report by the March Consulting Group for the UK Department of the Environment in August 1996 was that users in the refrigeration and air conditioning sector in the UK had not converted CFC-using equipment at the speed that had been hoped. Indeed, the relationship was the other way around: 'the relatively large quantities [of CFCs] available on the market are having a detrimental effect on the phase out of CFCs, particularly in the refrigeration sector where this encourages complacency amongst many end users.'

All this was speculation. The presence of illegal material in Europe was finally confirmed in dramatic fashion in July 1997, when 150 tonnes of illegally imported CFCs was seized in the Netherlands. The seller, Taifun GmBH, a fire-fighting equipment company based in Frankfurt, has now been charged with importing 630 tonnes of CFC-12 and 365 tonnes of halon-1301 without licences. All the material originated in China; some at least was falsely labelled as R-227 (an HFC which is not manufactured in China, or indeed, anywhere in large quantities) and sold to customers as German military surplus products. Some were then re-exported to the US, partly through Canada.

Illegal ODS has also been seized in Spain and in Italy. Spain appears to have the most persistent problem with illegal trade, partly because it has yet to incorporate EU regulations on control of ODS into national law, so there is no domestic penalty for smuggling even if it is detected. CFC prices in Spain are lower than anywhere else in the EU. Following complaints from Spanish NGOs and the Air-Conditioning and Refrigeration Society, government agents searched warehouses belonging to two refrigerant companies, finding large stocks of CFCs.

In September 1996, Italian customs uncovered illegal trade in CFCs as part of an operation aimed against nuclear, chemical and biological weapons proliferation. The material was believed to have originated in Europe; it was exported to Tunisia and then re-imported into Italy in a 'triangular trade' familiar to arms smugglers.

Methods of smuggling into the EU have involved a mixture of those outlined earlier. The Taifun case involved mislabelling and fraudulent documentation (the company obtained certification from the Frankfurt Chamber of Commerce attesting to the German origin of the material without checking).

Inward Processing Relief (IPR) for trans-shipment has proved, in the words of one UK customs official, 'a horribly easy system to breach'. CFCs brought in under IPR initially required no import licence, and customs statistics showed substantial volumes entering the EU during 1994. In the face of concern over the possible diversion of imports for IPR into home markets, a licensing system was introduced in January 1995 for monitoring purposes; no limit was set on the volume of licences issued, but proof was required of re-export. There were, however, reports of discrepancies between import and export figures for IPR in the UK and in France. As described above, the time lag between the reporting required at points of import and ultimate destination, or re-export provides many opportunities for diversion into the EU domestic market.

Even if the export figures do not tally with import data for material brought in under IPR, all that means is that the company loses its relief from customs duties, which may still make the import financially worthwhile. The licence required for IPR imports is only for monitoring purposes, and has no legal weight. In 1995, the EU licensed over 12,000 tonnes of CFC imports, of which about 500 tonnes were intended for free circulation, and the remainder for IPR; 94% of the material brought in under IPR originated from Russia. Volumes imported in 1996 were much lower.

In January 1997, Dehon Services, the EU's largest distribution company, estimated the volume of illegal trade from comparing data on end-use sales with total legal supply from production, stockpiling and recycling capabilities. On this basis, an estimated 8,000 tonnes of illegal material entered the EU in 1995, and 6,500 tonnes in 1996. The sources appear to be China and Russia (with Estonia offering a major trans-shipment route), and also possibly some legitimate EU production exported and illegally re-imported.

A working group on illegal trade was established by the European Commission in 1995, comprising representatives of industry and of customs authorities and environment departments of member states, and of the Commission itself. It has so far met twice, in October 1995 and January 1996. No further meetings were then planned because of industry representatives' inability to supply hard evidence of smuggling (unfairly, according to industry itself, who are not, after all, enforcement authorities). In the wake of the Taifun case (where much of the original information was provided by industry), however, the decision was taken to reconvene it. Customs authorities have become more aware of, and more interested in, the issue, and the Taifun seizure involved a coordinated effort by sev-

	1994	1995	1996
US	7,000 – 20,000	7,000 – 20,000	5,000 – 10,000
EU	8,000 – 15,000	8,000 – 15,000	7,000 – 15,000
Asia/Australasia	1,000 – 2,000	1,000 – 3,000	1,000 – 2,000
Total	16,000 – 37,000	16,000 – 38,000	13,000 – 27,000
Reported global consumption	352,882	265,649	N/A
Illegal trade as %	4.5 – 10.5	6.0 – 14.3	
Reported global production	339,732	245,027	N/A
Illegal trade as %	4.7 – 10.9	6.5 – 15.5	

eral EU customs agencies and the European Commission's anti-fraud unit, UCLAF. A debate in the European Parliament on 16 September 1997 may have helped place pressure on the Commission for further action.

The Global Problem

Precise figures for the scale of illegal trade are, of course, impossible to come by, but based on the figures cited above, it is possible to estimate a range:

Notes:

1 All figures are for CFC production and consumption (Annex A Group I ODS), in ODP-tonnes. All illegal material is assumed to possess an ODP of 1.0 (equivalent to CFC-11, -12 or -114). To the extent that illegal material is halons, this will be an underestimate (ODP of halon-1301 = 10.0).

2 Ranges for the US and EU use the EPA and Dehon Services estimates as the lower point, and the largest industry estimates as the higher point.

3 Ranges for Asia/Australasia include Taiwan (estimates of 400 tonnes smuggled in 1994 and 2,000 tonnes in 1995) plus an arbitrary amount for other industrialised countries – although no illegal trade has been detected elsewhere, it would be surprising if some was not taking place (though Japan has very large stockpiles of CFCs, offering less of a market for imported material).

Obviously these figures are little more than informed guesswork. But if as much as 15% of global consumption is accounted for by illegal trade, there would appear to be genuine grounds for concern. If the illegally traded materials are also illegal production (it is probably impossible to say how much is clandestinely produced and how much is legally manufactured but then illegally exported), then the current estimates of ozone depletion are inaccurate, and the rate of recovery of the ozone layer will be slower than presently assumed.

6 CONTROL

What can be done to combat illegal trade in ozone-depleting substances? There are three broad sets of actions.

1 End supply

The simplest way to control illegal trade is to remove the sources of the illegal materials. As indicated above, the major problem, at least in 1994 and 1995, appeared to be Russia. The efforts taken by the Russian government, and the GEF and World Bank proposals for production phase-out, probably offer the cheapest and most effective way to remove this source.

The problem has worsened, however, with the growth of developing countries as sources of illegal materials – mostly China, but also Mexico and possibly India. The phase-out schedule for Article 5 parties for CFCs sees the first controls applied in 1999 (a freeze at either 0.3kg per capita or the average of 1995–97 production, which ever is lower), and total phase-out by 2010 (with the usual exemptions). Although many developing countries, including Mexico, have declared their intentions to phase out consumption and production earlier than that, it seems unlikely that China and India, as the two biggest producers and consumers, will accelerate their own phase-out schedules by much – at least not without additional financial support from the Multilateral Fund.

2 End demand

The second general area is to reduce demand for illegal CFCs, by encouraging industry to replace CFC-using equipment. Most industrialised country governments have been content to leave this to the market, together with advice and encouragement; and of course the gradual reduction in demand as old equipment is replaced by newer technology will eventually end the problem of illegal trade in CFCs in any case. However, the process could be accelerated by government intervention. This includes applying use controls to particular sectors; Germany, for example, de-

cided in 1996 that all refillable refrigeration systems containing more than 1 kg of CFCs must end their use of CFCs by 1998. Other possible measures include bans on particular activities, such as a ban on CFC sales (which would restrict use to holders of stockpiles), or a ban on holding stockpiles, or a ban on imports of recycled material, or on all imports.

The persistence of illegal trade has raised the salience of this issue, and some discussion took place at the 1997 Meeting of the Parties to the Montreal Protocol on a sales ban. They eventually resolved (in Decision IX/23) to 'request non-Article 5 parties to consider banning the placing on the market and sale of virgin CFCs, except to meet the basic domestic needs of [Article 5] parties and other exempted uses. Parties may also consider extending this ban to include other substances listed in Annex A and B .... and recovered, recycled and reclaimed substances, provided that adequate steps are take to ensure their disposal.' The main proponent of this approach was the EU, which plans to introduce such a sales ban internally. A total sales ban for all Annex A and B ODS is included in the new EU regulations currently under discussion within the Commission; all being well, these should be implemented by the end of 1998.

3 Control illegal trade

The final method is to control the activities in between source and end use: the movement of illegal ODS. Possible activities include:

- Basic awareness-raising exercises, amongst customs and enforcement authorities, and end users; ignorance has always been a major problem.

- Close coordination and definition of responsibilities between the various customs and environment agencies and departments at a national level, including sorting out responsibilities for training, detection, prosecution, and so on. The US model, 'Operation Cool Breeze', is a useful one, as are the various arrangements set up to combat illegal trade in endangered species.

- Greater international cooperation between various agencies. This is of particular importance in the EU because of its single internal market – once goods have entered one member state, they are available for free circulation in all. This should also involve cooperation at a global level.

- Similarly, greater global cooperation between enforcement and environment agencies, particularly over intelligence-gathering – building on existing networks such as the World Customs Organisation. There may be a case for a global environmental crime unit, pulling together customs, police and environment agencies, to coordinate exchange of information. Support for UNEP's activities in training customs authorities in developing countries (though this does not, at present, deal with illegal trade) would also be valuable.

- Much closer monitoring of CFC production and trade. This issue also became a topic of discussion at the 1997 Meeting of the Parties, resulting in agreement on an amendment to the Protocol. After the amendment comes into force, parties will be required to implement a system for licensing imports and exports of all new, used, recycled and reclaimed ODS (though Article 5 parties may delay the introduction of such a system for HCFCs and methyl bromide).

- Adequate legislation and effective penalties at domestic level.

7 CONCLUSIONS

To what extent any, or all, of these routes are followed, ultimately depends on a cost-benefit analysis of the size of the problem compared with the costs and effectiveness of the solution. Above all else, what is required is the willingness to accept that illegal trade in ODS is unlikely to disappear. Even though the problem of CFCs and halons will eventually solve itself – though not, of course, without incurring additional damage to the ozone layer – it is entirely possible that illegal trade will develop in HCFCs. This is particularly true in Europe, where the EU is moving faster towards phase-out than the Montreal Protocol targets.

More generally, international environmental crime is a growth area. Illegal trade in endangered species of wild fauna and flora, and their products, illegal fishing and whaling, logging and trade in timber, and illegal transport and dumping of hazardous wastes, are all becoming more widespread. What differentiates criminal activities of this sort from the more traditional smuggling, of drugs, for example, is that their impacts are not restricted to the countries of export and import; their effects are transboundary and sometimes (as with ODS) global.

Furthermore, there is no doubt that there will be more environmental treaties in the future. The international community will increasingly find itself applying controls to the production, use and movement of products and substances which cause pollution. There will always, therefore, be an incentive for black markets to arise, and governments, if they are serious about enforcement of these environmental agreements, will need to tackle this problem.

Valuable lessons can be drawn from the issue of illegal trade in ODS – if the political will is there to learn them.

Carrots Without Sticks? New Financial Mechanisms for Global Environmental Agreements

Prepared by
Peter H. Sand[1]

Environmental law has been described as "a cutting-edge laboratory of international law"[2] – a metaphor which somehow casts environmental lawyers in the unenviable role of the alchemist who is impatiently expected to find cheap ways of making gold. International environmental law has indeed become a favourite testing ground for innovative policy instruments, including economic incentives (for "positive measures") and financial mechanisms in particular.[3] Some of the experiments ongoing have drawn fire, from the defenders of more traditional ways of making international law as well as from the defenders of more traditional ways of spending money. I shall begin, therefore, by placing those instruments in the general context of international development assistance, then focus on the major new financial "carrots" of global environmental agreements, and on some of the international legal problems they raise.

THE LIMITS OF GREEN AID

True, the environment has begun to play a prominent part in overseas development assistance. Most bilateral and multilateral aid projects are now subject to well-established criteria and procedures for the prior assessment of their environmental impacts;[4] and a standard portion of ongoing (bilateral and multilateral) development funding is regularly earmarked for "green" projects. It is also true, however, that the percentage of environment-related aid programmes has remained well below 8% of total official development assistance (ODA).[5] The corresponding percentage of inter-governmental lending for environment-oriented projects by multilateral financial institutions is even smaller;[6] and the operational budgets of intergovernmental institutions designated for collective environmental

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1 First published in *Max Planck Yearbook of United Nations Law*, Vol. 3 (1999), pp. 363-388; 6th Brodies Lecture on Environmental Law delivered at the Faculty of Law, University of Edinburgh (5 February 1999).

2 L. Condorelli, Preface to L. Boisson de Chazournes *et al.* (eds), *Protection Internationale de l'Environnement*, 1997, 7 ("laboratoire de pointe"); and P.M. Dupuy, "Où en est le droit international de l'environnement à la fin du siècle?", *Revue Générale de Droit International Public* 101 (1997) 873, (900)

3 See P.H. Sand, "International Economic Instruments for Sustainable Development: Sticks, Carrots and Games", *Indian Journal of International Law* 36 No. 2 (1996), 1 et seq.; Sand, "Sticks, Carrots, and Games", in: M. Bothe and P.H. Sand (eds), *Environmental Policy: From Regulation to Economic Instruments*, Hague Academy of International Law 1999; and P. Mickwitz, *Positive Measures: Panacea or Placebo in International Environmental Agreements*, Nordic Council of Ministers 1998

4 E.g., see the "Guidelines on Environment and Aid" adopted since 1991 by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development; especially No.4, *Guideline for Aid Agencies on Global Environmental Problems*, OECD 1992. All World Bank projects are subject not only to a series of specific policies and procedures for prior environmental assessment introduced since 1989, but also to an evaluation of their potential "global externalities" (including emissions of greenhouse gases or ozone-depleting substances, pollution of international waterways, and impacts on biodiversity) pursuant to Operational Policy OP 10.04 on *Economic Evaluation of Investment Operations* (September 1994), para. 8 and fn. 5; see C.E. Di Leva, "International Environmental Law and Development", *Georgetown International Environmental Law Review* 10 (1998), 501 et seq., (531)

5 Total official development assistance from OECD countries (about 30% of which is disbursed through multilateral institutions, while the remainder is bilateral aid) was US$49.8 billion in 1997, down from US$55.4 billion in 1996; *Development Co-operation: 1997 Report*, OECD 1998, updated figures in <http://www.oecd.org/dac/htm/online.htm>

6 World Bank lending for environmental projects, which had steadily increased since 1986, for the first time shows a decline in Fiscal Year 1998 (US$10.9 billion, down from US$11.6 billion in 1997); World Bank, *Annual Report 1998*, Figures 2 and 3-2 <http://www.worldbank.org/html/extpb/annrep98>

action – such as the United Nations Environment Programme (UNEP) – are actually lower than those of some non-governmental institutions in this field, such as the World Wide Fund for Nature (WWF).[7] Current figures – unlikely to increase in the foreseeable future – are only a fraction of the cost estimates for implementing *Agenda 21*, as outlined at the 1992 UN Conference on Environment and Development (UNCED, Rio de Janeiro)[8], and are manifestly unrelated to actual problem needs. Environmental projects thus share the fate of all contemporary development assistance, with most donor countries falling miserably short of the long-proclaimed goal of 0.7% of GNP.[9] "Green aid" is inevitably hamstrung by the same economic constraints which continue to frustrate international attempts at bridging the North-South gap on the sole, if noble, basis of global solidarity.

THE EMERGENCE OF GLOBAL ECO-FUNDS

Yet, simultaneously, there has been a well-documented increase both in public awareness of global environmental problems and in what economists call "willingness to pay" for collective environmental action. As a result, a new type of international financial mechanisms emerged to address specific environmental issues identified as global risks (sometimes under the label of "environmental security")[10] or as global collective goods (sometimes under the label of "common heritage")[11]. It is fashionable to explain that phenomenon as a paradigm shift[12] from an aggregation of individual state concerns to the securing of a community interest shared by all states.[13] An equally plausible explanation suggested by financial considerations would be the donors' enlightened self-interest.[14] Be that as it may, the politically correct phrase used today to distinguish this new selective (earmarked) funding from the mainstream of green aid[15] is the "achievement of global environmental benefits."

1. Historically, the first manifestation of this new approach was the establishment of the *World Heritage Fund (WHF)* under the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage.[16] The idea of preserving selected cultural and natural sites "for the present and future benefit of the entire world citizenry"

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7 Budget data in *Yearbook of International Co-operation on Environment and Development* (1998-1999), 224 and 253, <http://www.ext.grida.no/ggynet>; for a comparative assessment see W.E. Franz, "The Scope of Global Environmental Financing: Cases in Context", in: R.O. Keohane and Marc A. Levy (eds), *Institutions for Environmental Aid: Pitfalls and Promise*, 1996, 367 et seq.

8 US$600 billion annually, including US$125 billion on grant or concessional terms from the international community; para. 33.18 of the Report of the United Nations Conference on Environment and Development, UN Doc. A/CONF.151/26/Rev.1 (Vol. 1), 417

9 According to the 1997 OECD/DAC data (see note 4), official development assistance (ODA) from OECD countries represents about 0.22% of GNP on average – i.e., the lowest average in over 30 years, and way below the 0.7 target, which only the Scandinavian countries and the Netherlands have met. See also the 1997 Report of the UN Secretary General to the Commission on Sustainable Development, "Overall Progress Achieved since the United Nations Conference on Environment and Development", UN Doc. E/CN.17/1997/2, para. 99, "Financial Resources and Mechanisms", UN Doc. E/CN.17/1997/2/Add.23, paras. 33-36, <http://www.un.org/esa/sustdev/dsd.htm>; and J.G. Speth, "A New Global Environmental Framework", *Environmental Forum* 15 No.6 (1998), 44 et seq., (46)

10 On national security concerns underlying this concept, see P.H. Sand, "International Law on the Agenda of the United Nations Conference on Environment and Development: Towards Global Environmental Security?", *Nordic Journal of International Law* 60 (1991), 5 et seq., (9); and generally A.S. Timoshenko, "Ecological Security: Response to Global Challenges", in: E.B. Weiss (ed.), *Environmental Change and International Law: New Challenges and Dimensions*, 1992, 413 et seq.

11 On the solid economic interests behind the common heritage concept as originally applied to genetic resources, see G.S. Nijar and C.Y. Ling, "The Implications of the Intellectual Property Rights Regime of the Convention on Biological Diversity and GATT on Biodiversity Conservation: A Third World Perspective", in: A.F. Krattiger *et al.* (eds), *Widening Perspectives on Biodiversity*, 1994, 277 et seq., (279); V.M. Marroquín-Merino, "Wildlife Utilization: A New International Mechanism for the Prospection of Biological Diversity", *Law and Policy in International Business* 26 (1995), 303 et seq., (310); G. Rose, "International Regimes for the Conservation and Control of Plant Genetic Resources", in: M. Bowman and C. Redgwell (eds), *International Law and the Conservation of Biological Diversity*, 1996, 145 et seq., (154). See generally B.M. Russett and J.D. Sullivan, "Collective Goods and International Organization", *International Organization* 25 (1971), 845 et seq.

12 The term goes back to T.S. Kuhn, *The Structure of Scientific Revolutions*, 2nd edition 1970. See generally M. Jori, "Paradigms of Legal Science", *Rivista Internazionale di Filosofia del Diritto* 67 (1990), 230 et seq.

13 R. Dolzer, "Die internationale Konvention zum Schutz des Klimas und das allgemeine Völkerrecht", in: U. Beyerlin *et al.* (eds), *Recht zwischen Umbruch und Bewahrung*, 1995, 957 et seq., (972); U. Beyerlin, "State Community Interests and Institution-Building in International Environmental Law", *Heidelberg Journal of International Law* 56 (1996), 601 et seq., (605); E. Kornicker, *Ius Cogens und Umweltvölkerrecht*, 1997, 157. See generally B. Simma, "From Bilateralism to Community Interest in International Law", *Hague Recueil* 250 (1994-VI), 217 et seq.

14 B. Connolly, "Increments for the Earth: The Politics of Environmental Aid", in: Keohane and Levy (eds), see note 6, 327 et seq. (330)

15 The greening of international development assistance itself went through a long and acrimonious debate with the recipients over the "additionality" and "green conditionality" of the resources generated for this purpose; see S. Macleod, *Financing Environmental Measures in Developing Countries: The Principle of Additionality*, IUCN Environmental Policy and Law Paper No.6, 1974

16 UNTS Vol. 1037 No. 15511

goes back to a 1965 White House Conference on International Cooperation.[17] With 156 member countries, the 1972 Convention (in force since 1976) is the most widely accepted conservation treaty today. From the trust fund established pursuant to Art.15(2) – with a current annual income of approximately $4 million, about half of which goes to protected natural (as distinct from cultural) areas,[18] – any Party may request assistance for sites protected under the Convention, in the form of studies, provision of experts, training of staff, supply of equipment, loans, or emergency aid. Contributions to the Fund are prorated in accordance with the UNESCO contribution scale. The basic idea of the World Heritage Fund – to compensate the "host" countries of heritage sites for the special conservation efforts they make on behalf of the world community – thus goes beyond the traditional charitable motives of international aid, and recognizes a legal entitlement of the recipients, in return for the global benefits which their local action generates.[19]

2. It was the 1990 London amendment of the Montreal Protocol on Substances That Deplete the Ozone Layer[20] which for the first time formally entitled developing countries to obtain "subsidies"[21] to cover the costs of their participation in (and their compliance with) a treaty designed to produce global environmental benefits.[22] Amended Art.10 established the *Montreal Protocol Multilateral Fund (MPMF*, initially at US$240 million, currently at US$540 million for 1997-1999),[23] with contributions based on the UN assessment scale for all Parties whose annual consumption of controlled substances exceeds 0.3 kg *per capita*. Developing countries may claim from the Fund "all agreed incremental costs ... in order to enable their compliance with the control measures of the Protocol"; i.e. mainly for phase-out of ozone-depleting substances. "Agreed incremental costs"[24] thus became a central concept for implementation of the treaty, and a catchword for subsequent drafting of the 1992 Rio Conventions,[25] *Agenda 21*,[26] and the restructured GEF.[27] While the MPMF was established under the auspices of UNEP as trustee,[28] the "implementing agencies" are the World Bank, UNDP, UNEP and UNIDO.[29]

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17 See R.N. Gardner (ed.), *Blueprint for Peace*, 1966, 154 et seq.; and R.L. Meyer, "Travaux Preparatoires for the UNESCO World Heritage Convention", *Earth Law Journal* 2 (1976), 45 et seq.

18 Budget data in *Yearbook of International Co-operation on Environment and Development* (1998-1999), 148; see also D. Navid, "Compliance Assistance in International Environmental Law: Capacity-Building, Transfer of Finance and Technology", *Heidelberg Journal of International Law* 56 (1996), 810 et seq.

19 P.H. Sand, "Trusts for the Earth: New International Financial Mechanisms for Sustainable Development", in: W. Lang (ed.), *Sustainable Development and International Law*, 1995, 167 et seq., (171)

20 UNTS Vol. 1522 No. 26369 and Vol. 1684 No. 26369, *ILM* 26 (1987), 1541 et seq., and 30 (1991), 537 et seq. See generally R.E. Benedick, *Ozone Diplomacy: New Directions in Safeguarding the Planet*, rev. edition 1998; E.A. Parsons, "Protecting the Ozone Layer", in: P.M. Haas, R.O. Keohane and M.A. Levy (eds), *Institutions for the Earth: Sources of Effective International Environmental Protection*, 1993, 49 et seq.

21 N.C. Scott, "The Montreal Protocol's Environmental Subsidies and GATT: A Needed Reconciliation", *Texas International Law Journal* 29 (1994), 211 et seq.; M. Bothe, "The Evaluation of Enforcement Mechanisms in International Environmental Law", in: R. Wolfrum (ed.), *Enforcing Environmental Standards: Economic Mechanisms as Viable Means?*, 1996, 13 et seq., (34); and J.B. Wiener, "Global Environmental Regulation: Instrument Choice in Legal Context", *Yale Law Journal* 108 (1999), 677 et seq., (708)

22 Note the preamble (para. 7) as amended in 1990: "The funds [to be provided by the MPMF] can be expected to make a substantial difference in the world's ability to address the scientifically established problem of ozone depletion and its harmful effects..." For a recent quantification see J. Armstrong, "Global Benefits and Costs of the Montreal Protocol", in: P.G. Le Prestre, J.D. Reid and E.T. Morehouse Jr. (eds), *Protecting the Ozone Layer: Lessons, Models, and Prospects*, 1998, 173 et seq.

23 Budget data in *Yearbook of International Co-operation on Environment and Development* (1998-1999), 79. See J.M. Patlis, "The Multilateral Fund of the Montreal Protocol: A Prototype for Financial Mechanisms Protecting the Global Environment", *Cornell IntlLJ* 25 (1992), 181 et seq.; A. Wood, "The Multilateral Fund for the Implementation of the Montreal Protocol", *International Environmental Affairs* 5 (1993), 335 et seq.; T. Gehring, *Dynamic International Regimes: Institutions for International Environmental Governance*, 1994, 287 et seq.; E.R. DeSombre and J. Kauffman, "The Montreal Protocol Multilateral Fund: Partial Success Story", in: Keohane and Levy (eds), see note 6, 89 et seq.

24 In 1992, the Conference of the Parties to the Montreal Protocol adopted an "indicative list of categories of incremental costs", *ILM* 32 (1993), 874 et seq. On the difficulty of extrapolating the concept to other global agreements, see A. Jordan and J. Werksman, "Financing Global Environmental Protection", in: J. Cameron, J. Werksman and P. Roderick (eds), *Improving Compliance with International Environmental Law*, 1996, 214 et seq.; see also P. Manzini, *I costi ambientali nel diritto internazionale*, 1996

25 Art. 4(3) of the UN Framework Convention on Climate Change, and Art. 20(2) of the Convention on Biological Diversity, UNTS Vol. 1760 No. 30619 and Vol. 1771 No. 30822; *ILM* 31 (1992), 822 and 849

26 See note 8, para. 33.14 lit. a (iii)

27 Art. 2, *ILM* 33 (1994), 1283; see note 35

28 <http://www.unmfs.org> and <http://www.unep.org/unep/secretar/ozone/home.htm> On the question of the Fund's legal status, see note 84

29 Pursuant to a bilateral "Ozone Projects Agreement" with the MPMF Executive Committee, the World Bank established a separate "Ozone Projects Trust Fund" for that purpose: IBRD Resolution 91-5, Annex D and Supplement, *ILM* 30

3. After a series of intergovernmental meetings and interagency contacts in 1989-1990, the World Bank's Board of Executive Directors in March 1991 established the *Global Environment Facility (GEF)*,[30] which according to its enabling instrument should "support programmes and activities for which benefits would accrue to the world at large while the country undertaking the measures would bear the cost, and which would not otherwise be supported by existing development assistance or environment programmes."[31] Following pledges and burden-sharing arrangements among donor states for approximately US$1 billion during the pilot phase (raised to US$2 billion at a first replenishment in 1994, and to US$2.75 billion for the period from 1998 to 2001), the GEF – jointly operated by the World Bank, UNDP and UNEP – became the major international funding source for environmental projects in three focal areas: climate change, biological diversity, and international waters (including marine and freshwaters).[32] In a fourth focal area (ozone layer protection), after unsuccessful proposals by some donor countries to merge MPMF and GEF,[33] the GEF now supplements MPMF activities in countries not eligible for funding under the Montreal Protocol (i.e., mainly the countries of Eastern Europe and the former Soviet Union).[34]

   Following its re-structuring in 1994[35] – on the basis of recommendations by the 1992 Rio Conference[36], prompted by criticism from developing countries in particular – the GEF was ultimately designated by the Conferences of the Parties to the 1992 Conventions on Climate Change and Biodiversity to operate their "financial mechanisms".[37] By contrast, the Conference of the Parties to the 1994 Convention to Combat Desertification,[38] which had also envisaged the GEF for this task, eventually opted for the International Fund for Agricultural Development (IFAD) instead.[39] More recently, in the context of negotiations for a new global agreement on persistent organic pollutants, operation of the future convention's financial mechanism by the GEF was again raised as a possibility.[40]

4. There is a fourth financial instrument which – albeit very much *sui generis* – is constitutionally geared to global environmental benefits: the *Rain Forest Trust Fund (RFT)* established in 1992 by the World Bank, to finance a pilot programme initiated by the G-7 group of countries for conservation of the Brazilian Amazon and Atlantic rain forests, with US$55.8 million pledged contributions to the core fund (as of 1998) and another US$324 million for related

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30 IBRD Resolution 91-5, supplemented in October 1991 by tripartite procedural arrangements with UNDP and UNEP; *ILM* 30 (1991), 1735 et seq. See I.F.I. Shihata, "The World Bank and the Environment: A Legal Perspective", *Maryland Journal of International Law and Trade* 16 (1992), 1 et seq.; H. Sjöberg, *From Idea to Reality: The Creation of the Global Environment Facility*, GEF Working Paper No.10, 1994; S.A. Silard, "The Global Environment Facility: A New Development in International Law and Organization", *George Washington Journal of International Law and Economics* 28 (1995), 607 et seq.; L. Boisson de Chazournes, "Le Fonds pour l'environnement mondial: recherche et conquête de son identité", *Annuaire Français de Droit International* 41 (1995), 612 et seq., and *Max Planck Yearbook of United Nations Law* 3 (1999), 243 et seq.; M. Ehrmann, "Die Globale Umweltfazilität (GEF)", *Heidelberg Journal of International Law* 57 (1997), 565 et seq.

31 World Bank, *Establishment of the Global Environment Facility*, 1991; *ILM* 30 (1991), 1739

32 See L. Jorgenson, "The Global Environment Facility: International Waters Coming into its Own", *Green Globe Yearbook of International Co-operation on Environment and Development* (1997), 45 et seq.

33 See L.H. Rowlands, "The Fourth Meeting of the Parties to the Montreal Protocol: Report and Reflection", *Environment* 35 No. 6 (1993), 25 et seq., (28); and Gehring, see note 23, 306

34 See notes 68 and 122

35 Instrument for the Establishment of the Restructured Global Environment Facility (Geneva, 14 March 1994), *ILM* 33 (1994), 1283 et seq.; see H. Sjöberg, "The Global Environment Facility", in: J. Werksman (ed.), *Greening International Institutions*, 1996, 148 et seq.; and generally <http://www.gefweb.org>

36 *Agenda 21*, see note 8, para. 33.14 lit. a (iii)

37 On the relationship with the two conventions, see note 81

38 *ILM* 33 (1994), 1328 et seq.; see M. Bekhechi, "Une nouvelle étape dans le développement du droit international de l'environnement: la Convention sur la désertification", *Revue Générale de Droit International Public* 101 (1997), 32 et seq.

39 As decided by the first Conference of the Parties, Rome 1997. Operation of the IFAD-hosted mechanism has not started so far, and the adoption of a Memorandum of Understanding with IFAD – UN Doc. ICCD/COP(2)/4, Add.1, as submitted to the second conference, Dakar 1998 – was deferred to the third COP, scheduled to be held at Recife/Brazil in November 1999. Meanwhile, the GEF continues to finance projects relating to deserts and land degradation to the extent that they fall within one of its four current focal areas: 1994 Instrument, Art. 3, see note 35. See also R. Lake, "Finance for the Global Environment: The Effectiveness of the GEF as the Financial Mechanism to the Convention on Biological Diversity", *Review of European Community and International Environmental Law* 7 (1998), 68 et seq., (74)

40 At the second meeting of the Intergovernmental Negotiating Committee in Nairobi (January 1999); see also the 1998 report to the GEF Council, "Relations with Conventions", GEF/C12/12 (1998)

technical assistance projects from seven donor countries and the European Community, implemented under a 1994 bilateral framework agreement between Brazil and the World Bank (plans to share implementation with UNDP did not materialize).[41] The objectives of the programme (preservation of biodiversity, reduction in carbon emissions, and new knowledge about sustainable activities in tropical rain forests) are described as representing "benefits that are global in scope and justify financial and technical transfers from the international community to Brazil".[42] Although there were initial proposals also to merge this fund with the GEF,[43] its present operation is entirely separate and not associated with any multilateral environmental agreement.[44] Nevertheless, the RFT offers useful lessons for generating global environmental benefits through a multiple-donors/single-recipient arrangement, which could easily be replicated in other areas; e.g., at the recent tenth meeting of the Parties to the Montreal Protocol (Cairo, November 1998), ten donor countries pledged a special contribution of US$19 million to shut down Russian chlorofluorocarbon and halon production factories by the year 2000.[45]

5. The 1997 Kyoto Protocol to the UN Framework Convention on Climate Change[46] paved the way for yet another variant of global ecofunding, this time involving the private sector as well. Pending further inter-governmental negotiations to specify the Protocol's provisions on "joint implementation" (Art. 6) and a "clean development mechanism" (Art. 12),[47] the World Bank has announced plans to launch a *Prototype Carbon Fund (PCF)*, as a closed-end mutual investment fund of US$100-120 million, to which industrialized countries and the business sector are expected to contribute on the basis of bilateral "participation agreements" (minimum US$10 million for public-sector and US$5 million for private-sector participants).[48] The Bank, in cooperation with the International Finance Corporation (IFC) and possibly other multilateral financial institutions, is to reinvest those funds in developing countries and in Eastern Europe, through projects for carbon emission reduction and/or carbon offsets (e.g., reforestation) that would qualify as global benefits.[49] The PCF could thus be a first step towards partial privatization of what has been termed the historic "environmental debt" of the North,[50] even though we still are a long way from its fair redistribution and internalization in terms of global welfare economics.[51]

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41 Sand, see note 19, 23 et seq.; G.J. Batmanian, "The Pilot Program to Conserve the Brazilian Rainforests", *International Environmental Affairs* 6 (1994), 3 et seq.; and World Bank, *Rain Forest Pilot Program Update*, Vol. 6 (1998)

42 IBRD Resolution 92-2 (24 March 1992) establishing the Rain Forest Trust Fund, Attachment 2 (Background Note), para. 1

43 As in the case of desertification (see note 38), GEF funding of projects in the field of deforestation is possible within the context of the four focal areas, under Art. 3 of the 1994 Instrument; see note 35

44 The 1992 Rio Conference failed to produce the binding global forest convention then envisaged: see R. Tarasofsky, *The International Forests Regime: Legal and Policy Issues*, 1995, 2 et seq.

45 International Institute for Sustainable Development (IISD), *Linkages Journal* 4 No.1 (1999), 22

46 See note 25. Uncorrected text of the Protocol in *ILM* 37 (1998), 22 et seq.; corrected text at the website of the Bonn Secretariat, <http://www.unfcc.de>. See generally C. Breidenich, D. Magraw, A. Rowley and J.W. Rubin, "The Kyoto Protocol to the United Nations Framework Convention on Climate Change", *American Journal of International Law* 92 (1998), 315 et seq.

47 From the vast and rapidly growing literature, e.g. see O. Kuik, P. Peters and N. Schrijver (eds), *Joint Implementation to Curb Climate Change: Legal and Economic Aspects*, 1994; A.G. Hanafi, "Joint Implementation: Legal and Institutional Issues for an Effective International Program to Combat Climate Change", *Harvard Environmental Law Review* 22 (1998), 441 et seq.; D.M. Driesen, "Free Lunch or Cheap Fix? The Emissions Trading Idea and the Climate Change Convention", *Boston College Environmental Affairs Law Review* 26 (1998), 1 et seq.; J. Werksman, "The Clean Development Mechanism: Unwrapping the 'Kyoto Surprise'", *Review of European Community and International Environmental Law* 7 (1998), 147 et seq.

48 World Bank, *Information Document on the Prototype Carbon Fund*, February 1999, 5 et seq.; see also World Bank, *Environment Matters: Annual Review 1998*, 53. For criticism, see D. Wysham, "The World Bank: Funding Climate Chaos", *Ecologist* 29 (1999), 108 et seq.

49 Investors will receive carbon offset certificates (by a designated independent certifying company), as evidence of their efforts to comply with emission reduction targets, although any validation or "crediting" under Arts. 6 or 12 of the Kyoto Protocol will be subject to the formal certification process being developed under the auspices of the Conference of the Parties; Di Leva, see note 4, 508 et seq., and notes 71 and 124

50 A. Al-Gain, "Agenda 21: The Challenge of Implementation", in: A. Kiss and F. Burhenne-Guilmin (eds), *A Law for the Environment: Essays in Honour of Wolfgang E. Burhenne*, 1994, 21 et seq., (25) (defining the historical imbalance of pollutant emissions as "a debt owed by the industrial nations to the global environment, and by extension, to the nations of the world whose future development [is] now imperiled")

51 See the rather gloomy appraisal by R. Falk, "Environmental Protection in an Era of Globalization", *Yearbook of International Environmental Law* 6 (1995), 3 et seq.

I. COMMON CHARACTERISTICS

The "new generation of financial mechanisms"[52] so outlined – which for the sake of convenience we may call eco-funds – is sufficiently distinct from other global instruments to constitute a category of its own, as a brief comparison with existing environment-related funds within the UN system shows:

- The twelve *"convention trust funds"* established since 1978 under the auspices or at the initiative of UNEP for several regional and global treaties (with contributions currently totalling ca.US$20 million annually)[53] were set up as administrative cost accounts for the operation of secretariat and meeting services[54], or as collection accounts for voluntary donations to support participation by developing countries.[55] While the latter type of funds may indeed be considered as contributing to treaty implementation, their voluntary nature places them in the traditional category of (charitable) green aid discussed in section I.[56] Also in that category – albeit on the fringe of the UN system – is the Wetland Conservation Fund established in 1990 under the 1971 Ramsar Convention on Wetlands of International Importance[57] (renamed the Ramsar Small Grants Fund in 1996, with contributions currently totalling less than half a million US$ annually)[58] to assist member countries in their conservation efforts for protected areas designated under the treaty. Though following the pattern of the WHF, the mechanism was never incorporated in the text of the Ramsar Convention, and contributions are voluntary only.

- The *International Oil Pollution Compensation (IOPC) Funds*, established in 1978-96 (under the auspices of the International Maritime Organization, London) pursuant to the 1971 Brussels Convention,[59] serve rather different economic purposes, mainly risk distribution and insurance against major pollution accidents (with contributions based on oil shipments received and totalling, on average, ca.US$10 million annually to the general fund and ca. US$80 million to major claim accounts).[60] That is also true of proposals for a similar liability/compensation and/or emergency fund under the 1989 Basel Convention on Hazardous Wastes,[61] or for a global general "super-fund" to cover the risks of other environmental accidents.[62]

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52 L. Boisson de Chazournes, "Les mécanismes conventionnels d'assistance économique et financière et le fonds pour l'environnement mondial", in: C. Impériali (ed.), *L'effectivité du droit international de l'environnement*, 1998, 187 et seq., (190)

53 Sand, see note 19, 172 et seq.; and Sand, see note 85, 487 et seq.

54 Special trust fund accounts (administered by the UNEP Environment Fund in Nairobi) for the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora, the 1979 Convention on Conservation of Migratory Species of Wild Animals, the 1985 Vienna Convention for the Protection of the Ozone Layer, the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the trust funds set up for regional marine environment conventions in the Mediterranean (1976), the Gulf (1978), the West and East African coasts (1981 and 1985), and the Caribbean (1983). A similar trust fund account (administered by the UN secretariat in New York) was set up for the 1979 UN/ECE Convention on Long-Range Transboundary Air Pollution (LRTAP), mainly for international administrative costs of the European Monitoring and Evaluation Programme (EMEP) pursuant to a 1984 protocol, UNTS Vol. 1491 No. 25638; *ILM* 24 (1985), 484 et seq.

55 E.g., UNEP trust funds to finance attendance at Montreal Protocol meetings, see note 20; and for bilateral technical assistance under the Basel Convention, see note 61

56 See notes 5-9

57 UNTS Vol. 996 No. 14583; see M.J. Bowman, "The Ramsar Convention Comes of Age", *Netherlands International Law Review* 42 (1995), 1 et seq., 40

58 Budget data in *Yearbook of International Co-operation on Environment and Development* (1998-1999), 158; Navid, see note 17, 815

59 International Convention on the Establishment of an International Fund for Compensation of Oil Pollution Damage, UNTS Vol. 1110 No. 17146; on the separate fund set up pursuant to the 1992 London Protocol, see M. Jacobsson, "Oil Pollution Liability and Compensation: An International Regime", *Uniform Law Review*, New Series 1 (1996-2), 260 et seq.

60 Supplementing the civil liability regime established by the 1969 Brussels Convention, UNTS Vol. 973 No. 14097, and related funds of the shipping industry (TOVALOP 1969 and CRISTAL 1971): *ILM* 8 (1969), 497 et seq., and 10 (1971), 137 et seq. See R. Ganten, *International System for Compensation of Oil Pollution Damage*, 1981; B.P. Herber, "Pigovian Taxation at the Supranational Level: Fiscal Provisions of the International Oil Pollution Compensation Fund", *Journal of Environment and Development* 6 (1997), 110 et seq.; *Annual Report on the Activities of the International Oil Pollution Compensation Fund*, 1998

61 *ILM* 28 (1989), 657 et seq.; see P. Lawrence, "Negotiation of a Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal", *Review of European Community and International Environmental Law* 7 (1998), 249 et seq., (252)

62 See H. Smets, "COSCA: A Complementary System for Compensation of Accidental Pollution Damage", in: P. Wetterstein (ed.), *Harm to the Environment: The Right to Compensation and the Assessment of Damages*, 1997, 223 et seq.

On the other hand, the new eco-funds (WHF, MPMF, GEF, RFT, and eventually the PCF) do have a number of characteristic features in common, especially with regard to governance, burden-sharing and entitlement to funding.

(a) *Governance.* The four existing global eco-funds operate under guidance from decision-making bodies reflecting a delicate North-South balance – the "semicircles syndrome" which also characterized UNCED:[63]

- The governing body of the WHF is the World Heritage Committee, composed of 21 members elected by the Parties to the Convention. Under the current "equitable representation" formula pursuant to Art.8(2), 12 members represent developing countries and nine developed countries. According to Art.13(8), all decisions that cannot be reached by consensus require a two-thirds majority of 14, hence both constituencies can effectively block a vote.

- The governing body of the MPMF is the Executive Committee, composed of 14 members elected by the Parties to the Protocol, seven of which represent developing countries and seven "others". Pursuant to Art.10(9), funding decisions that cannot be reached by consensus require an overall two-thirds majority *and* a majority in both constituencies.

- The governing body of the GEF is the Council, composed of 32 members elected by the GEF participant states, 16 of which represent developing countries, 14 developed *International Environmental Law* 3 (1992), 3 et seq., (15); Sand, "International Environmental Law After countries, and two "the countries of central and eastern Europe and the former Soviet Union" (Art.16). According to Art.25(c), decisions that cannot be reached by consensus require a "double weighted majority" including the votes representing 60% of all participants *and* 60% of all donors.

- Even though the RFT has no institutional structure of its own, its governance reflects the same donor/recipient balance, as expressed in the 1994 bilateral framework agreement between the World Bank and Brazil as the host country (signature of which was delayed because of the constitutional requirement of prior approval by the Brazilian Senate). While operational decisions for project appraisal, approval and administration are made "in accordance with procedures and practices of the Bank",[64] policy guidance and periodic performance review is entrusted to annual meetings of the programme participants (the eight donors and Brazil, acting in consensus), with input from an International Advisory Group of scientific/technical experts. The new PCF – besides introducing an innovative form of private stakeholder participation (with three of the seven members of its Participation Committee coming from the business sector) – will follow a similar pattern, including prior project approval by each host country, and policy guidance from annual participants' meetings and an advisory Host Country Committee.[65]

(b) *Burden-sharing.* The sharing formula both of the WHF and the MPMF is based on variations of the UN scale of assessment (as periodically revised by the General Assembly), whereas GEF, RFT and the future PCF follow the practice of the International Development Association (IDA) where contribution shares are negotiated *ad hoc* and periodically re-negotiated at special replenishment meetings. The net result for the main contributors is of course different, though not fundamentally so, as the following comparison shows:[66]

There is one significant difference in burden-sharing between the WHF and the MPMF formula, which however affects the "minor" donors only:

- Contributions to the WHF are due from all Parties to the Convention,[67] regardless of their development status, and are fixed at the

[63] See P.H. Sand, "UNCED and the Development of International Environmental Law", *Yearbook of* Rio", *European Journal of International Law* 4 (1993), 377 et seq., (389)

[64] Art. 4 of the 1994 Framework Agreement, see note 40; i.e., ultimately under the weighted-voting system of the World Bank's 24-member Board of Executive Directors, where Brazil represents one of three Latin American constituencies

[65] World Bank, see note 48, 12

[66] Adapted from the tables in *United Nations Handbook 1998*, 342 et seq., and in the GEF Draft Annual Report, GEF/C12/13 (1998), 57; RFT figures reflect trust fund contributions received by 1998. The excerpt from the UN scale of assessment omits Russia and is not prorated to the actual number of GEF donors; percentage figures have been rounded in both scales

[67] Though giving countries an option between "compulsory" and "voluntary" contributions, the assessment system is in practice mandatory for both categories; S. Lyster, *International Wildlife Law*, 1985, 208 et seq., (230)

uniform level of 1% of each country's UNESCO membership fees (i.e., almost identical to the UN scale of assessment).

- Contributions to the MPMF are due only from Parties other than those "operating under Art.5(1)"; i.e., outside the list of developing countries (as determined from time to time by the Conference of the Parties) whose annual consumption of controlled substances is below the level of 0.3 kg *per capita*. Hence most (not all) developing countries are exempt from the obligation to contribute. While the overall contribution scale of the MPMF (the UN scale) is thus nominally unrelated to the ozone layer problem – except for the coincidence that the main donors happen to be the industrialized countries mainly responsible for the ozone hole –, the lower end of that scale may indeed be said to reflect the "polluter pays" principle, by exempting the non-polluters.

(c) *Entitlement.* Leaving aside here the somewhat unique case of the RFT (with its single recipient developing country), the other existing global eco-funds provide funding essentially on the basis of need; i.e., to economically disadvantaged countries in the "South" and in the former "East".

- Funding from the WHF is available, in principle, to all host countries of world heritage sites, regardless of their development status. Under Art. 21(1), however, funding requests must also give "reasons why the resources of the State requesting assistance do not allow it to meet all the expenses", which *de facto* rules out the developed countries.

- Funding from the MPMF is restricted, in principle, to Parties "operating under Art. 5(1)"; i.e., developing countries not exceeding the specified consumption level for controlled substances. Under a bilateral agreement with the MPMF Executive Committee, however, the GEF provides equivalent funding to "otherwise eligible recipient countries that are not Article 5 countries, or whose activities, while consistent with the objectives of the Montreal Protocol, are of a type not covered by the Multilateral Fund." (i.e., especially countries in Eastern Europe and the former Soviet Union), provided they are Parties to the Protocol, have ratified the London amendments, and are in compliance with their obligations under the amended Protocol.[68]

- Funding from the GEF is restricted under Art. 9 to member countries of the conventions concerned, provided they are eligible for UN technical assistance or for IBRD/IDA loans/credits; i.e., are below the official "poverty line" of US$4,866 annual *per capita* income.[69] As a somewhat different variant, the new Prototype Carbon Fund (PCF) will – in line with the country groups defined in the Climate Change Convention, and in view of

1998 UN Assessment (% of regular UN budget)		1998 GEF Pledges (% of all pledges to 1998)		1998 RFT Shares (% of core funding)	
USA	25.0	USA	21.3	Germany	34.7
Japan	17.9	Japan	20.5	European Union	25.3
Germany	9.6	Germany	11.9	Japan	12.2
France	6.4	France	7.1	USA	9.8
Italy	5.3	United Kingdom	6.7	Italy	7.0
United Kingdom	5.0	Italy	5.7	Netherlands	5.7
Canada	2.8	Canada	4.2	United Kingdom	4.1
Spain	2.5	Netherlands	3.5	Canada	1.2
etc.	etc.				

[68] GEF, *Operational Strategy*, 1996, 64; see P.H. Sand, "The Montreal Regime: Sticks and Carrots", in: LePrestre, Reid and Morehouse (eds), see note 22, 107 et seq., (109); and see note 121

[69] GNP in 1993 dollars, as further illustrated by Silard, see note 30, 653 fn.194

Arts. 6 and 12 of the Kyoto Protocol[70] – focus both on "countries undergoing the process of transition to a market economy" listed in Annex I of the Convention (i.e., Eastern Europe), and on "Parties not included in Annex I" (i.e., developing countries).[71]

II. APPREHENSIONS

As might have been expected, these new financial incentives to induce compliance with global environmental agreements did not find unmitigated favour with all commentators. "Carrots" have been criticized on three counts: legitimacy; efficacy; and credibility.

(1) *Lack of legitimacy?* This critique has been leveled exclusively – and massively – at the GEF, largely because of its close association with the World Bank, which still is a favourite global villain for opinion-leaders in the environmental NGO community and the Third World.[72] Suspicions of donor-domination remain, even though many of the early objections against the alleged "undemocratic", closed and top-down style of decision-making in the GEF pilot phase were at least partly met and remedied by its post-Rio re-structuring.[73] In the wake of highly successful NGO pressures for policy reforms within the World Bank Group[74] – through revised environmental policy directives and procedures, including the Independent Inspection Panel set up in 1993[75] – the GEF has become more responsive to the demands of developing countries and civil society representatives,[76] to the point where it is now depicted as the environmentalists' Trojan horse in the Bretton Woods system.[77] Certainly, the mandate of multilateral development banks to help implementing global environmental agreements is well-established.[78]

(2) *Lack of efficacy?* This criticism has been raised both against the GEF and the MPMF, largely because of the sheer complexity of their institutional structure. Just how effective can a mechanism be that is operated jointly by three or more autonomous or semi-autonomous institutions within the UN system, whose internal rivalries have aptly been likened to those of medieval feudal barons;[79] which is run by a governing body deliberately split into North-South caucus blocs;[80] and which, on top of that, must take policy guidance from one or several Conferences of 150-plus Parties, under the terms of "Memoranda of Understanding" negotiated like diplomatic treaties?[81] It sounds like a miracle that the two mechanisms should function at all; and yet they do, and not too badly, even when compared to institutions operating under a single treaty and a single organization like the WHF. While the pilot phase both of the MPMF and the GEF had re-

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[70] See notes 25 and 46

[71] See note 49. It is envisaged that there will be "a broad balance" in the number of PCF projects to be undertaken in the two country groups; World Bank, see note 48, 16

[72] E.g., see V. Shiva, "Global Environment Facility: Perpetuating Non-Democratic Decision-Making", *Third World Economics*, 31 March 1993, 17 et seq.; B. Rich, *Mortgaging the Earth: The World Bank, Environmental Impoverishment, and the Crisis of Development*, 1994, 175 et seq.; and J. Gupta, "The Global Environment Facility in its North-South Context", *Environmental Politics* 4 (1995), 19 et seq.

[73] See note 35

[74] See K. Horta, "The World Bank and the International Monetary Fund", in: Werksman (ed.), see note 35, 131 et seq.; I.A. Bowles and C.F. Kormes, "Environmental Reform at the World Bank: The Role of the U.S. Congress", *Virginia Journal of International Law* 35 (1995), 777 et seq., (836)

[75] IBRD Resolution 93-10, *ILM* 34 (1995), 503 et seq.; see I.F.I. Shihata, *The World Bank Inspection Panel*, 1994, 41 (confirming that the resolution also applies to GEF projects implemented by the World Bank)

[76] See Lin Gan, "The Making of the Global Environment Facility: An Actor's Perspective", *Global Environmental Change* 3 (1993), 256 et seq.; and J. Werksman, "Consolidating Governance of the Global Commons: Insights from the Global Environment Facility", *Yearbook of International Environmental Law* 6 (1995), 27 et seq.

[77] J.D. Werksman, "Greening Bretton Woods", in: P. Sands (ed.), *Greening International Law*, 1993, 65 et seq., (84)

[78] G. Handl, "The Legal Mandate of Multilateral Development Banks as Agents for Change Toward Sustainable Development", *American Journal of International Law* 92 (1998), 642 et seq.

[79] B. Urquhart, *A Life in Peace and War*, 1987, 119: "There was, and is, as little chance of the Secretary-General coordinating the autonomous specialized agencies of the UN system as King John of England had of bringing to heel the feudal barons."

[80] See text following note 63

[81] See R. Mott, "The GEF and the Conventions on Climate Change and Biological Diversity", *International Environmental Affairs* 5 (1993), 299 et seq.; Boisson de Chazournes, see note 52, 194 et seq.; and Ehrmann, see note 30, 599 et seq. The "MoU" formula bypassed the opinion of the UN Office of Legal Affairs as to the GEF's incapacity to conclude a more formal agreement; see note 86

ceived mixed evaluations,[82] their present ratings are surprisingly positive.[83]

That is not to imply that all questions have been resolved – starting with the question of their legal status:

- In the case of the MPMF, the Conference of the Parties decided in 1994 to secure a higher degree of organizational autonomy by proclaiming the "juridical personality, privileges and immunities of the Multilateral Fund", which boldly purported to constitute a UN subsidiary body as a "body under international law".[84]

- The legal status of the restructured GEF – based on a governmentally-authorized interagency agreement among UNEP, UNDP and the World Bank[85] – also is not uncontroversial: Whereas the UN Office of Legal Affairs defines it as "a subsidiary body of the World Bank and the United Nations, acting through UNDP and UNEP, ... [without] legal capacity to enter into legally binding arrangements or agreements",[86] others describe it as an international organization with its own legal personality,[87] or at least a "quasi-international organization."[88]

(3) *Lack of credibility?* Perhaps one of the most perplexing question marks for all global eco-funds relates to their role as instruments to promote conformity with international law. Claims to the effect that financial carrots are a legitimate method of "active treaty management" and transition towards progressive compliance (the so-called "managerial" and "transformational" schools of thought)[89] have recently been challenged by more conservative calls for strict observance of treaty rules and coercive means to secure respect for the principles of good faith and *pacta sunt servanda*, also in the field of global environmental regimes (the so-called "political economy theory of enforcement").[90] To these critics, "side payments"[91] (which some would call bribes) to reward certain states for meeting their legal obligations would amount to "subsidized compliance",[92] thereby "undermining the credibility of international environmental law."[93]

Without the promise of financial aid for their participation, however, the countries of the South, China and India in particular, "would not have signed up to

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[82] See A. Wood, "The Global Environment Facility Pilot Phase", *International Environmental Affairs* 5 (1993), 219 et seq.; D. Fairman, "The Global Environment Facility: Haunted by the Shadow of the Future", in: Keohane and Levy (eds), see note 7, 55 et seq.; DeSombre and Kauffman, see note 23

[83] See the report of the second independent evaluation carried out prior to the 1998 replenishment of the GEF: G. Porter, R. Clémençon, W. Ofosu-Amaah and M. Philips, *Study of GEF's Overall Performance*, December 1997. On the MPMF, see F. Biermann, "Financing Environmental Policies in the South: Experiences from the Multilateral Ozone Fund", *International Environmental Affairs* 9 (1997), 179 et seq.

[84] Decision VI/16, *Yearbook of International Environmental Law* 5 (1994), 937. The language of the decision not withstanding, the Fund's legal *personality* presumably remains that of the United Nations, even though the MPMF may have the legal *capacity* to enter into contracts, to acquire property and to institute legal proceedings
GEF: G. Porter, R. Clémençon, W. Ofosu-Amaah and M. Philips, *Study of GEF's Overall Performance*, December 1997. On the MPMF, see F. Biermann, "Financing Environmental Policies in the South: Experiences from the Multilateral Ozone Fund", *International Environmental Affairs* 9 (1997), 179 et seq.

[85] See P.H. Sand, "The Potential Impact of the Global Environment Facility of the World Bank, UNDP and UNEP", in: Wolfrum (ed.), see note 21, 479 et seq.; and J. Werksman, "Consolidating Governance of the Global Commons: Insights from the Global Environment Facility", *Yearbook of International Environmental Law* 6 (1995), 49 et seq.

[86] Memorandum to the Executive Secretary of the UN Framework Convention on Climate Change, 23 August 1994, annexed to UN doc. A/AC.237/74 (1994); text in P.H. Sand, *The Role of International Organizations in the Evolution of Environmental Law*, UNITAR, 1997, 69 et seq.; Boisson de Chazournes, see note 30, 621; Ehrmann, see note 30, 593

[87] H.G. Schermers and N.M. Blokker, *International Institutional Law*, 3rd edition 1995, 27; and A. Klemm, "Die Global Environment Facility", *Recht der Internationalen Wirtschaft* 44 (1998), 921 et seq., (922)

[88] Silard, see note 29, 644. Perhaps the term should be "international quasi-organization"

[89] A. Chayes and A.H. Chayes, *The New Sovereignty: Compliance with International Regulatory Agreements*, 1996; R.B. Mitchell, "Compliance Theory: an Overview", in: Cameron, Werksman and Roderick (eds), see note 24, 3 et seq.; M.A. Levy, O.R. Young and M. Zürn, "The Study of International Regimes", *European Journal of International Relations* 1 (1995), 267 et seq., (283)

[90] G.W. Downs, D.M. Roche and P.N. Barsoom, "Is the Good News About Compliance Good News About Cooperation?", *International Organization* 50 (1996), 379 et seq.; G.W. Downs, "Enforcement and the Evolution of Cooperation", *Michigan Journal of International Law* 19 (1998), 319 et seq.

[91] P.T. Stoll, "The International Environmental Law of Cooperation", in: Wolfrum (ed.), see note 21, 39 et seq., (80); using a term introduced in international regime analysis by A. Underdal, *The Politics of International Fisheries Management: The Case of the North-East Atlantic*, 1980, 36

[92] U. Beyerlin and T. Marauhn, *Law-Making and Law Enforcement in International Environmental Law after the 1992 Rio Conference*, 1997, 160 (para. 26: "bezahlte Rechtsbeachtung" in the German original)

[93] T. Marauhn and M. Ehrmann, "Workshop on 'Institution-Building in International Environmental Law: Summary of the Discussion", *Heidelberg Journal of International Law* 56 (1996), 821 et seq., (827)

the Montreal Protocol, thereby undermining the ozone regime's global reach;"[94] and *without* the prospect of losing their GEF funding, the countries of Eastern Europe and the former Soviet Union would simply continue their lucrative free-riding production of ozone-depleting substances.[95] In the face of this dilemma, the granting of "selective incentives"[96] to these reluctant parties has been justified by reference to the "common but differentiated responsibilities" formulated in Principle 7 of the 1992 Rio Declaration on Environment and Development[97] and Art. 3(1) of the Convention on Climate Change.[98] The Rio package was indeed bargained between groups of states,[99] as a "multipartite-bilateral" deal (to use Lord McNair's treaty typology)[100] not unlike global commodity agreements that are negotiated between producer and consumer countries;[101] i.e., based on synallagmatic (if asymmetric) equivalence – rather than identity – of the two groups' respective obligations. The resulting preferential treatment ("double standards", or "positive discrimination")[102] reserved for economically disadvantaged treaty partners was part of the price paid for universal participation.[103]

QUID PRO QUO?

This equitable North-South deal is formally secured by reservations of reciprocity,[104] such as Art. 4(7) of the Climate Change Convention, stipulating that "the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology..."[105] That provision creates an "explicit linkage"[106] (a *junctim*, as it were[107]) between specific substantive obligations of developing countries and the donor countries' promise of financial and technical assistance. Hence non-compliance by the donors would empower the developing countries to retaliate by postponing[108] or suspending[109] their own implementation.

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[94] R. Falkner, "The Multilateral Ozone Fund of the Montreal Protocol", *Global Environmental Change* 8 (1998), 171 et seq., (173); and H.F. French, *Partnership for the Planet: An Environmental Agenda for the United Nations*, Worldwatch Paper No. 126, 1995, 24

[95] See D. Brack, *International Trade and the Montreal Protocol*, 1996, 99 et seq.; and see note 121

[96] The term goes back to M. Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups*, rev. edition 1971, 51; and M. Olson, *The Rise and Decline of Nations*, 1982, 21. See P.H. Sand, *Lessons Learned in Global Environmental Governance*, 1990, 6

[97] Text in the Report of UNCED, see note 8, 4. The wording of the principle was based in part on a statement by the 1991 OECD Ministerial Meeting, *Yearbook of International Environmental Law* 2 (1991), 529 (doc. 24, para. 5). Even so, the US delegation at Rio reserved its position on this and other principles of the Declaration; see UN Doc. A/CONF.151/26, Vol. IV (1993), para. 16, and J. Kovar, "A Short Guide to the Rio Declaration", *Colorado Journal of International Environmental Law and Policy* 4 (1993), 119 et seq. See also *Institut de Droit International*, Resolution on Procedures for the Adoption and Implementation of Rules in the Field of Environment, Strasbourg 1997, Art. 4 (noting "the differences in the financial and technological capabilities of States and their different contribution to the environment problem")

[98] See note 25; R. Wolfrum, "Means of Ensuring Compliance with and Enforcement of International Environmental Law", *Hague Academy Recueil des Cours* 272 (1998), 13 et seq., (147)

[99] Sand, see note 63, 8; see also R. Ricupero, "Chronicle of a Negotiation: The Financial Chapter of Agenda 21 at the Earth Summit", *Colorado Journal of International Environmental Law and Policy* 4 (1993), 81 et seq.; and B.I. Spector, "The Search for Flexibility on Financial Issues at UNCED: An Analysis of Preference Adjustment", in: B.I. Spector, G. Sjöstedt and I.W. Zartman, *Negotiating International Regimes: Lessons Learned from the United Nations Conference on Environment and Development*, 1994, 87 et seq.

[100] A. McNair, *The Law of Treaties*, 1961, 29

[101] E.g., the 1994 International Tropical Timber Agreement, *ILM* 33 (1994), 1014 et seq.; D. König, "New Approaches to Achieve Sustainable Management of Tropical Timber", in: Wolfrum (ed.), see note 21, 337 et seq., (352); and F. Gale, *The Tropical Timber Trade Regime*, 1998

[102] K. Kummer, "Providing Incentives to Comply With Multilateral Environmental Agreements: An Alternative to Sanctions?", *European Environmental Law Review* 3 (1994), 256 et seq., (260); W. Lang, "Is the Protection of the Environment a Challenge to the International Trading System?", *Georgetown International Law Review* 7 (1995), 463 et seq., (475)

[103] See generally D.M. Magraw, "Legal Treatment of Developing Countries: Differential, Contextual, and Absolute Norms", *Colorado Journal of International Environmental Law and Policy* 1 (1990), 69 et seq.; V.P. Nanda, "International Environmental Protection and Developing Countries' Interests: The Role of International Law", *Texas International Law Journal* 26 (1991), 497 et seq.; J. Ntambirweki, "The Developing Countries in the Evolution of International Environmental Law", *Hastings Int'l & Comp. L. Rev.* 14 (1991), 905 et seq.; H. Beck, *Die Differenzierung von Rechtspflichten in den Beziehungen zwischen Industrie- und Entwicklungsländern*, 1996

[104] See generally B. Simma, "Reciprocity", in: R. Bernhardt (ed.), *Encyclopedia of Public International Law*, Pt. 7, 1984, 400 et seq., and Vol. 4, 1999, 29 et seq.; and R.O. Keohane, "Reciprocity in International Relations", *International Organization* 40 (1986), 1 et seq.

[105] Art. 20(4) of the Biodiversity Convention is almost identical (see note 25), as both are based on similar language in Art. 5(5) of the Montreal Protocol as amended in 1990 (see note 20)

[106] D. Hunter, J. Salzman and D. Zaelke, *International Environmental Law and Policy*, 1998, 472

[107] Kleinn, see note 87, 925

[108] Stoll, see note 91, 90

[109] Boisson de Chazournes, note 30, 630 ("condition à effet suspensif")

It has been argued that the donors' default, if not entitling an individual developing country to "automatic delinkage",[110] would at least trigger a collective non-compliance procedure yet to be defined.[111] Meanwhile, however, Art. 5(6) of the Montreal Protocol clearly entitles an individual developing country to invoke the donors' default as a valid "exculpation" for its own non-compliance.[112] The debate thus turns on the general question of permissible countermeasures for breach of a multilateral treaty – a matter where the 1969 Vienna Convention on the Law of Treaties[113] offers disappointingly and notoriously scant guidance.[114]

One generally accepted qualification is the proportionality of such countermeasures.[115] Presumably, retaliatory suspension of compliance by a developing country based on donors' default should be confined to the type of implementation measures that were intended to be covered by donor funds; e.g., the categories of measures listed in the "indicative list" of incremental costs.[116] Non-compliance limited to this specific range of treaty obligations – i.e., within the agreed synallagmatic scope of Arts. 5(5) MP, 4(7) FCCC, and 20(4) CBD – may indeed be a legitimate exercise of reciprocity rights, and hence – by analogy with Art. 5(6) MP – would in turn exonerate developing countries Parties to the Climate Change and Biodiversity Conventions from the normal consequences of a breach of treaty.[117]

Conversely, operation of these new financial instruments also highlights another aspect of negative ("tit-for-tat") reciprocity which is already evident in the "case law" of the GEF Council, in response to recommendations by the Montreal Protocol's Implementation Committee:[118] If the granting of funds for compliance assistance is an effective incentive, the *withholding* of such financial support is an equally effective collective countermeasure against the recipient's non-compliance,[119] and hence adds a new category of "selective disincentives" to the arsenal of available treaty sanctions.[120] The issue arose in two of the first cases considered by the Committee,[121] and led to at least temporary suspension of GEF funding for Russia, under the *Operational Strategy* rule which makes funding contingent upon full compliance with the Protocol.[122]

Along the same lines, Art. 6(1)(c) of the 1997 Kyoto Protocol has added a new "compliance conditionality",[123] so as to withhold any certification

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[110] L. Boisson de Chazournes, "The United Nations Framework Convention on Climate Change: On the Road Towards Sustainable Development", in: Wolfrum (ed.), see note 21, 285 et seq., (299)

[111] Beyerlin and Marauhn, see note 92, 129; see also T. Marauhn, "Towards a Procedural Law of Compliance Control in International Environmental Relations", *Heidelberg Journal of International Law* 56 (1996), 696 et seq.; and J. Werksman, *Responding to Non-Compliance under the Climate Change Regime*, OECD Information Paper, OECD: Paris 1998

[112] Beyerlin and Marauhn, see note 92, 130

[113] UNTS Vol. 1155 No. 18232; *ILM* 8 (1969), 679 et seq.

[114] Simma, see note 13, 352; and Simma, "Reflections on Article 60 of the Vienna Convention on the Law of Treaties and Its Background in General International Law", *Austrian Journal of Public International Law* 20 (1970), 5 et seq. See also D.W. Bowett, "Economic Coercion and Reprisals by States", *Virginia Journal of International Law* 13 (1972), 1 et seq., (11); and K. Sachariew, "State Responsibility for Multilateral Treaty Violations: Identifying the 'Injured State' and Its Legal Status", *Netherlands International Law Review* 35 (1988), 273 et seq.

[115] See M. Koskenniemi, "Breach of Treaty or Non-Compliance? Reflections on the Enforcement of the Montreal Protocol", *Yearbook of International Environmental Law* 3 (1992), 123 et seq., (140, 153)

[116] See note 24

[117] See generally S. Rosenne, *Breach of Treaty*, 1985; and J. Setear, "Responses to Breach of a Treaty and Rationalist International Relations Theory: The Rules of Release and Remediation in the Law of Treaties and the Law of State Responsibility", *Virginia Law Review* 83 (1997), 1 et seq.

[118] See D.G. Victor, "The Operation and Effectiveness of the Montreal Protocol's Non-Compliance Procedure", in: D.G. Victor, K. Raustiala and E.B. Skolnikoff (eds), *The Implementation and Effectiveness of International Environmental Commitments*, 1998, 137 et seq.; Sand, see note 85, 496

[119] M.E. O'Connell, "Enforcing the New International Law of the Environment", *German Yearbook of International Law* 35 (1992), 293 et seq., (319) (withholding of financial assistance as "retorsion")

[120] See note 96. On the need to keep a balance of incentives and disincentives to discourage free-riding, see H.F. Chang, "Carrots, Sticks, and International Externalities", *International Review of Law and Economics* 17 (1997), 309 et seq., (320). On the need also to keep the "stick" of general international legal sanctions for breach of a treaty, see M. Koskenniemi, "New Institutions and Procedures for Implementation Control and Reaction", in: Werksman (ed.), see note 35, 236 et seq., (248) (quoting Sir Robert Jennings)

[121] Decisions VII/15-19 (1995) and VIII/22-25 (1996); Victor, see note 118, 155 et seq.; J. Werksman, "Compliance and Transition: Russia's Non-Compliance Tests the Ozone Regime", *Heidelberg Journal of International Law* 56 (1996), 750 et seq.

[122] See note 68. However, at their tenth meeting (Cairo, November 1998), the Parties to the Montreal Protocol recommended continued GEF assistance for eight successor countries of the former Soviet Union, while cautioning them that stricter measures will be imposed if they do not adhere to their new benchmarks for phase-out of ozone-depleting substances; IISD, see note 45

[123] See note 46; Werksman, see note 47, 156

of emission credits from countries not in compliance with their other treaty obligations – a built-in default clause which may soon become applicable to carbon offset projects financed by the World Bank's new PCF, too.[124] That trend is confirmed by the recent practice of the World Heritage Fund, where reporting duties and compliance controls – in return for financial assistance – are gradually being tightened,[125] or "deepened", in the jargon of enforcement theory.[126]

The lesson, then, is not only that it is often difficult in global environmental regimes to tell a carrot from a stick;[127] paradoxically, what may have seemed like a carrot when granted tends to become a stick when denied.

[124] See notes 49 and 71. Pursuant to its *Operational Manual Statement on Environmental Aspects of Bank Work* (OMS 2.36, May 1984, para. 9 lit. e), the World Bank "will not finance projects that contravene any international environmental agreements to which the member country concerned is a party"; text in I.F.I. Shihata, *The World Bank Inspection Panel*, 1994, 137 et seq. (141). Sand, see note 85, 493; Handl, see note 78, 658; and I.F.I. Shihata, "Implementation, Enforcement and Compliance With International Environmental Agreements: Practical Suggestions in Light of the World Bank's Experience", *Georgetown International Environmental Law Journal* 9 (1997), 37 et seq. (47)

[125] See the Resolution on Periodic Reporting adopted by the 29th General Conference of UNESCO, as transmitted to the World Heritage Committee at its 21st Session, Naples 1997, WHC-97/CONF.208/17, Annex V

[126] Downs, see note 90, 332 et seq., (342) (sequentially increased "depth of cooperation")

[127] E.g., the Montreal Protocol's ban on trade with non-Parties – the "stick" of Art. 4(1), see note 20 – may also be viewed as a "carrot", since it promises access to inter-party trade: Sand, see note 3, 10 fn. 57; A. Enders and A. Porges, "Successful Conventions and Conventional Success: Saving the Ozone Layer", in: K. Anderson and R. Blackhurst (eds), *The Greening of World Trade Issues*, 1992, 134 et seq.

Co-operative Criminal Law Enforcement to Protect the Environment- Recent Inter-national Developments, the United States Experience, and A Case Study: Project Exodus Asia

Prepared by
Michael J. Penders[1]
United States Environmental Protection Agency
Office of Criminal Enforcement, Forensics and Training

INTRODUCTION:

This conference comes at an important moment in the international effort to minimize pollution and manage industrial waste in an environmentally sound manner. Compliance with international agreements and national environmental law has become a fundamental concern for all nations. Failure to comply and the perception that organizations or individuals may violate environmental obligations with impunity or small consequences undermine the effect of the significant body of national and international law that has developed to address environmental problems. Those who violate environmental laws not only threaten human health and the environment, but compromise the economic viability of nations and facilities that comply with environmentally sound practices.

Simply put, because these problems are often international in scope, the solutions must entail international cooperation as well. The globalization of the world's economy is no longer a subject for debate, it is a fact. So too must be our approach to combating environmental crime, which takes advantage of every weakness in laws, international regimes, and enforcement practices. At a minimum, we must do everything we can in terms of enforcement cooperation to sustain a credible deterrent to those who would profit by illegally shipping or disposing hazardous waste and other regulated substances.

Accordingly, as international economic interdependence expands, we must continue to build upon our cooperative efforts in ensuring the effective implementation of sound environmental laws, in minimizing transboundary pollution, and in maximizing enforcement cooperation among trading partners. Otherwise, we cannot begin to achieve a fair market for those who pay the costs associated with environmental compliance nor prevent risks to human health and the environment where unsound practices are tolerated.

The United States is committed to building environmental enforcement capacity on the local level and strengthening bi-lateral, regional, and multi-lateral approaches to address pollution problems and environmental crimes that transcend national borders. Not only are these efforts essential to the effectiveness of international agreements, such as the Basel Convention and the Montreal Protocol, but the relationships formed and the processes established for mutual assistance fundamentally improve all nations' ability to enforce their own laws governing hazardous waste and other dangerous substances.

Recently, we have had some notable successes in convicting illegal exports and importers of hazardous waste and ozone depleting substances, but only by virtue of extraordinary cooperation between specialized enforcement agencies within the United States and in other nations. One task before us is to make successful investigations of environmental crime less extraordinary.

We are at a critical juncture in the international effort to implement agreements to prevent the illegal transboundary shipments and confront pollution problems which respect no borders. The legal frameworks and emerging mechanisms will mean little, however, unless our collective capacity to enforce these laws improves

[1] Initially prepared for the Congresso Iberoamericano-Sobre Crimen Ambiental held at Concun, Mexico from 7-10 October 1998.

RECENT DEVELOPMENTS IN INTERNATIONAL COOPERATION AND THE ENVIRONMENTAL LEADERS SUMMIT:

This conference is premised on a shared recognition that the impact of environmental law on society is dependent upon effective enforcement of such law. Over the last decade, the international public and most governments have reached a consensus that significant violations of environmental laws are so serious that they are properly viewed and prosecuted as crime. Increasingly, this affirmation has been codified in national law and expressed in international agreements such as the Basel Convention which established that illegal traffic in hazardous waste is criminal. Only very recently, however, have nations developed the administrative measures and begun to deploy trained personnel with law enforcement powers in such a way as to facilitate any real enforcement of environmental crime.

In the last year, the importance of compliance with environmental law and international agreements has gained unprecedented prominence at the highest levels of government and in conduct of foreign affairs. For example, in May 1997, the Environmental Leaders of the United States, Canada, Italy, France, Germany, Japan, Russia, the United Kingdom, and the European Union convened in Miami, Florida to address environmental enforcement issues for the first time in the context of the G-8 Summit process. U.S. EPA Administrator Carol Browner chaired the Environmental Leaders Summit of the Eight which produced a strong agreement on environmental enforcement and access by citizens and groups to environmental information.

At the conclusion of the Summit, the leaders issued a joint statement that "Effective enforcement of environmental law is essential to punish and deter environmental violations, ensure fairness for those who pay the costs associated with environmental compliance, and provide a basis and give incentives for voluntary efforts to improve environmental performance". The G-8 leaders agreed to move forward domestically with efforts to improve the integration of environmental enforcement with traditional law enforcement institutions and other agencies.

"The environment leaders also committed themselves to support and enhance the emerging international cooperative efforts among other governments and international bodies. They noted the value of compliance mechanisms under international environmental agreements and the importance of individuals and groups having access to environmental information and effective administrative judicial mechanisms. They agreed to enhance a collective focus on trade which is illegal under international environmental law, including shipments originating in their countries and those that have adverse impacts on developing countries".

In January of 1998, the enforcement officials of these nations held a consultation in Washington, D.C. to implement these cooperative efforts. As the G-8 process reconvened in Great Britain this spring with meetings of the environmental ministers and heads of state, international crime and environmental enforcement efforts remained near the top of the agenda.

While recent cooperative efforts and the growing international attention paid to these matters are encouraging, the technical capacity and resources necessary to investigate potential violations of environmental laws have barely coalesced. In many places there remains an extremely limited capacity to enforce environmental laws. Still, governments and the public alike have come to expect vigorous enforcement of environmental laws, particularly with respect toxic releases, hazardous substances or waste that is illegally dumped.

Effective enforcement remains a challenge for all nations in this era of limited government resources and competing priorities. At the very least, enforcement requires the capacity to monitor compliance with environmental requirements, trained personnel to safely and effectively investigate violations in cooperation with other law enforcement agencies, and sanctions that serve as a credible deterrent to noncompliance and as a basis for remediation and pollution prevention.

HIGHLIGHTS OF THE UNITED STATES EXPERIENCE IN BUILDING A NATIONAL ENFORCEMENT AND COMPLIANCE PROGRAM:

In the United States, before there was a national system of environmental laws and enforcement, we saw hazardous waste being illegally dumped and shipped from those states with stringent laws and strong enforcement to those regions and states where it was lacking. As a result, the citizens and communities in those latter states were put at greater risk. Some polluters, complied by economic incentives, transported waste to these states or moved facilities there in order to avoid costs associated with sound environmental practices. All too often these savings were achieved at the expense of the environment.

Beginning in the 1970s, the United States decided as a nation that these practices were unacceptable, and that a minimum level of environmental protection should apply across the land. The development of national environmental laws followed, in large part,

in order to prevent polluters from taking advantage of inconsistency in laws and enforcement practices between the states.

In the United States, after national laws were enacted, there was a period of education, compliance assistance, and then almost exclusive use of administrative and civil sanctions, mostly monetary fines, in the initial enforcement efforts against pollution to the air, land, or water that was determined to be illegal. It was observed during this period that companies that faced only monetary penalties and a small chance of being detected in violation, could put off coming into compliance and if they were ever caught and fined, they could pass the cost of any penalty on to consumers, in the form of higher prices.

Beginning in the 1980s, the United States began a serious effort at criminal enforcement and other sanctions that set the stage for widespread compliance efforts on behalf of industry. It was not mere coincidence that shortly after the U.S. enacted national laws that severely punished violators of environmental requirements (including imprisonment for knowing violations by corporate officials or other persons) and developed the capacity for effective enforcement, that many industrial concerns began to take their environmental obligations very seriously. Corporations began to improve their environmental performance and deploy systematic approaches to monitor and assure compliance with environmental requirements.

There is strong empirical evidence for the correlation between strong laws, enforcement, and substantial investment in environmental compliance. For example, there was a survey of corporate officials in the United States in 1993 as to what their motivation was for adopting environmental management systems to ensure the sound and legal disposal of their industrial wastes. The number one response was concern with being targeted by EPA for enforcement.

This is really common sense. Ask yourself a question: if you are a manager of a business and face only a small chance of being caught violating an environmental law and then only a small fine if detected, how much would you invest to improve the environmental performance of your company and how soon would you begin to spend the money?

I am not now addressing organized crime. Unfortunately, there will always be those who will deliberately violate any law to make a profit and we must do our best to put them out of business. I am referring to the average business confronted with a choice to spend a significant amount of money to achieve environmental compliance and ensure the sound disposal of industrial wastes, or to look for ways to put off that investment or dispose of it cheaply by illegal dumping. Companies may well delay investments to comply with environmental standards if there is a perception that they would face only small consequences if they were ever to face a government action against them for failure to comply with law. Moreover, they may be competing against businesses that confront the same incentives, and which may not be as inclined to comply with the law, further reducing a company's incentive to spend on compliance, absent an expectation of consistent and fair enforcement of the law.

I'll cite several developments in the United States which were among those that led to long term investment in environmental compliance becoming a rational choice for corporate managers:

(1) When the national environmental laws were reauthorized in the U.S. in the 1980s, Congress change what had been misdemeanor offenses for certain violations and established felony crimes for knowing violations, providing for up to five years imprisonment for each such violation. In addition to greater punishment and therefore greater deterrence, this also improved the prospects for environmental enforcement in the criminal justice institutions. Prosecutors became more interested and devoted more resources to felony prosecutions than misdemeanors and judgments took them more seriously in scheduling court time and other judicial resources.

(2) Congress also established "Knowing Endangerment" offenses for endangering another person by knowing violating certain environmental laws, and provided for up to 15 years of imprisonment for such offenses.

(3) Sentencing Guidelines were promulgated which limited the discretion of courts in sentencing environmental defendants, and made it clear that even for a first offense, if there was a knowing violation of most federal environmental laws, violators would be imprisoned.

(4) Capacity-Building for Environmental Enforcement. In 1990, Congress passed the Pollution Prosecution Act, mandating EPA to deploy 200 specially trained criminal investigators of environment law with full law enforcement powers to supplement state and local efforts to enforce environmental laws. Congress also created the National Enforcement Training Institute dedicated to training state, local, and federal law enforcement personnel in the safe and effective enforcement of environmental laws.

(5) Listing and Debarment Federal law provided that corporations that were convicted of certain environmental offenses were prohibited from govern-

ment contracts and they may be debarred for other unsound practices as well.

(6) Superfund Liability. The law known as Superfund in the U.S. with its joint and several civil liability for cleaning up toxic waste sites provided great economic incentive for minimizing pollution and disposing of waste soundly in the first place. It came to establish that any business that dumped a hazardous waste in what became a superfund site could be financially liable for cleaning up that entire site.

(7) Financial liability. As the liability imposed by the environmental laws, such as Superfund, became established, financial institutions, such as banks and insurers, came to insist upon environmental assessments and cleanups before real estate transactions or insurance policies could be entered into. Accordingly, potential environmental liabilities became a factor for investment purposes as well.

(8) Toxic Release Inventory and the Community Right to Know. Federal law mandated that polluters must publish a list of the pollutants and quantities they release annually and ensured the public of information about industrial facilities.

Taken together, these developments and others provided the legal framework and economic incentives for managing waste and other dangerous substances in a lawful and environmentally sound manner. This system of regulation operated to internalize the full cost of production of these pollutants and created real incentives for reducing waste and for preventing pollution in the first place. In the United States, with persistent, strong enforcement as a basis we have seen these laws makes a difference in improving the environment.

COOPERATIVE LAW ENVIRONMENT APPROACHES TO ENVIRONMENTAL CRIME:

Experience in investigating and prosecuting environmental crimes has taught EPA that cooperation efforts are essential in confronting the unique law enforcement challenges associated with the nature of pollution which, once released to the environment, respect no borders and defies traditional law enforcement jurisdictions. Wit this in mind, EPA has done much to promote structures for extensive cooperation between federal, state, local and international law enforcement authorities.

Internationally, we have worked closely with INTERPOL and its Working Party on Environmental Crime since its inception in 1992. EPA supports a variety of bilateral, regional, and multilateral networks of environmental enforcers. These include border task forces and working groups, the North American Commission for Environmental Cooperation (NACEC), and the International Network for Environmental Compliance and Enforcement (INECE).

Domestically, most states, local police, and other federal law enforcement agencies have become essential partners with EPA in environmental criminal enforcement. EPA's criminal investigators, moreover, regularly join task forces composed of specialized federal, state, and local law enforcement agencies to pool resources and intelligence and conduct high profile, multi-jurisdictional investigations such as those currently underway to address the illegal smuggling of CFCs into the U.S. and the pollution in the lower Mississippi River.

This interagency cooperation has been facilitated by joint training exercises, the sharing of data and intelligence among law enforcement agencies, and formal agreements of cooperation such as the Memorandum of Understanding between EPA and the US Customs Service for the enforcement of environmental laws at the border. Also important, EPA now deploys its special agents in 40 different communities across the United States so that they can work directly in the communities that face the greatest pollution problems in concert with the local authorities in an attempt to achieve a consistent and fair level of environmental enforcement across the nation.

PROJECT EXODUS ASIA: THE INVESTIGATION AND THE PROJECT:

A recent EPA enforcement initiative involved both the coordination of domestic enforcement agencies to identify suspect shipments of waste destined for export and cooperation with law enforcement agencies abroad. We named this project 'Exodus Asia" because it brought together a network of state and federal law enforcement agencies to focus upon potential illegal shipments of waste from the United States to Asian nations. An examination of this project illustrates the type of coordinated law enforcement response necessary to tract unknown waste shipments and build cases against those who illegally transport waste, particularly those shipments that cross national borders.

Actually, what became the Exodus Asia project was precipitated by urgent diplomatic communications and international headlines that accompanied the arrest of a U.S. citizen in June of 1996 by the People's Republic of China (PRC) for illegally importing waste into that country. The defendant was responsible for importing shipments of recyclable paper materials originating in the United States. Upon arrival in China, however, the

shipments were alleged to contain undeclared hazardous waste materials. The waste was alleged to include garbage, medical waste, and other unknown substances.

It was apparent the PRC was intent on prosecuting the importer under laws governing imports and its Law on Solid Waste Pollution Prevention and Control. The immediate concern for the United States government was to determine what facts it could about this incident so that it could respond as appropriate to the Chinese government. Those facts would not only inform any diplomatic decisions that needed to be made in the near term but also whether there was a potential violation of U.S. law as well related to the illegal export of waste.

First questions for U.S. investigators included whether these shipments in fact contained a "waste" and whether the waste was "hazardous" as defined by U.S. law. If the shipments contained an illegal export of hazardous waste, without proper notification and acknowledgment of consent by the receiving nation as required by U.S. law, then EPA and other federal authorities would have jurisdiction to pursue charges for illegal export of waste.

Under U.S. law, these questions are not easily answered even when there is knowledge of the source of the waste and the industrial process which produced it. In order to establish that a waste is hazardous in the U.S. for enforcement purposes, the government must prove that the substance first is a waste and then that it is either one of the thousands of listed hazardous wastes under federal regulations or exhibits the characteristics of a hazardous waste as defined by law, almost always by scientific sampling and analysis.

If the shipments were merely wastepaper intended for legitimate recycling, however, then there would be no violation of U.S. law. Indeed, the massive volume of waste paper generated by U.S. consumers is attractive to certain Asian nations where trees are scarce, making it one of the nation's top export commodities. In 1995 alone, the United States shipped more than 6 million tons of recyclable paper overseas, most to Asia. U.S. industry standards do not permit wastepaper to contain more than 10 percent trash, but overseas mills are often willing to buy loads that contain 20 percent or more. Relative labor costs often make it cheaper for businesses to ship it mixed and have the receiving nation sort it out according to their standards.

Of course, it is illegal under U.S. law to mix hazardous waste in with this waste paper and it may be illegal under the receiving nations laws to import waste paper when mixed with other types of waste or too much trash beyond specification. Thus, the fundamental questions for this investigation became: (1) what exactly was in the rejected containers?; and (2) how did these shipments get contaminated and who was responsible?

Accordingly, the investigation proceeded along two tracks. First, to find out where these shipments originated, it was necessary to track them back to their point of origination in the U.S. by investigating everyone involved in the transaction: the brokers, the shippers, the exporters, and finally a recycling center where the shipping containers were loaded with waste paper.

At the same time, it was also important to establish precisely what the Chinese law enforcement authorities were alleging and what exactly was discovered in the containers. It was appropriate, therefore, that the U.S.A EPA made a formal request of PRC law enforcement officials through INTERPOL of the details of the PRC's accusations and the facts they were alleging. The Chinese government responded to this request with information about the charges and specifics of allegations. In turn, they requested information about the business operations of the defendant in the U.S. These communications demonstrated the utility of INTERPOL's international system of law enforcement to law enforcement exchange in cases where it essential for nations to cooperate in an international investigation and learn the facts in the possession of another nation.

Not only was such international cooperation critical to this investigation, but coordination with state and local authorities was required as well. Indeed, the state of California and CAL EPA was concerned about this matter in its own right. The shipments in question had departed from ports in California and wastepaper export for recycling purposes had become an important business in the state. This incident had raised questions about the legitimate trade in recyclable paper and for a time the PRC authorities suspended such trade.

In fact, there was a high ranking delegation of California officials and businessmen in Beijing when the publicized arrest was made. Ironically, this delegation was promoting, among other things, expanded trade in paper recycling. Upon their return, California officials requested an EPA investigation into these allegations and readily offered their support when they learned that such an investigation was already underway.

THE PROJECT:

As the investigation unfolded, several concerns became apparent about the capacity of the different governmental agencies to detect or tract suspect shipments intended for export and recycling, which may

include waste materials. First, the U.S. State Department, the Customs Service, EPA, and different agencies within California may receive information about potential illegal shipments, but there was limited capacity to investigate such allegations by any other agency acting alone.

Second, in an era of increasing global trade, mechanized transport with containerized shipping, and a high priority assigned to keeping shipments moving, it is more difficult than ever to have meaningful inspections of material intended for export or import. To the extent that Customs Services focused on illegal trade, most resources and technology were devoted to investigating incoming shipments, not those intended for export. Even then, only a small percentage of incoming traffic is actually inspected at the border.

In the modern era, it is not uncommon for shipments to be loaded in a container in the middle of America, sent by trucks or rail to ports in California, and then packed on ships which are underway without the container being opened or its contents inspected. Many of these containers are never opened until they reach their final destination, perhaps in the middle of China.

With more international trade, and relatively fewer opportunities for meaningful inspection, the potential for those to abuse the system by sending illegal substance increases. Thus, it is more important than ever that all levels of government work effectively together to detect and respond to suspect shipments. These different law enforcement agencies must integrate or at least coordinate their data, intelligence and technology, and build capacity by developing routine mechanisms for cooperative operations. Moreover, these domestic agencies must establish a network with their law enforcement counterparts in other nations, particularly their most frequent trading partners, to facilitate international investigations. Otherwise, there is small deterrent to those who would export waste illegally to avoid the costs associated with disposing of it in an environmentally sound manner at home.

THE NETWORK:

As it became apparent that a broader and more coordinated approach was necessary to identify, interdict, and prosecute illegal exports, EPA found it necessary to initiate and structure a network of state, local, and federal agencies to pool their resources and combine their authorities to cooperate in the enforcement of laws which govern waste and the export of waste products. This network then needed to solicit and establish the active cooperation of other nations' agencies abroad. This became the genesis and mission of the project known as 'Exodus Asia'. By this project, EPA set out to establish an enforcement network with a particular focus on exports from the USA to Asia.

A first step was to establish a compilation of domestic and diplomatic data about potential illegal shipments and obtain a baseline of information from other governments and regions about shipments which they had rejected in recent years because they contained waste products not correctly identified in manifests or which violated laws of the receiving nation. To this end, EPA made a formal request through INTERPOL of the appropriate authorities in Taiwan, Korea, Hong Kong, and the PRC to identify all suspect and illegal shipments rejected or investigated by their agencies since January 1, 1995.

Along with this, meetings were arranged with senior managers in the U.S. State Department, Customs Service, State of California, different offices with EPA, and local waste regulators to obtain all relevant data their agencies maintain about waste processing, including waste or by-product that may be intended ultimately for export. It was necessary for these agencies to then establish a coordinated liaison function in order to bring their respective information together for periodic analysis in order to identify potential illegal shipments before they left the U.S. Review of this data was also essential so as to enable cooperation with other nations law enforcement in cases discovered abroad or in transit.

To date, largely by bringing together these various levels of government with different functions and the information they manage about waste, there have been numerous cases of suspicious waste management practices identified. Also, as a result, several cooperative investigations into potential illegal exports of hazardous waste and other dangerous substances have been initiated.

The Investigation and its Aftermath:

With respect to the original investigation, on January 13th, 19997, the Chinese government reported that the defendant was sentenced to 10 years imprisonment and ordered deported for illegally importing 238 metric tons of garbage and medical waste from California in shipping containers falsely labeled as scrap paper. After these shipments were returned to the U.S., and the shipping company repatriated them as they were obligated by contract to do, subsequent EPA investigation at the U.S. port confirmed that these shipments contained large amounts of garbage and other waste, though no necessarily hazardous waste under U.S. law.

On October 1, 1997, the PRC reported that traffic in illegal dumping declined in the past year due to the

threat of imprisonment and more rigorous inspections of foreign waste shipments. "Large-scale U.S. waste exporters now take more care with the quantity of China-bound waste, "the PRC's State Administration of Import and Export Commodity Inspection said in a statement. The Administration said less than 1 percent of foreign waste imported since January failed to meet federal standards, according to random inspections by Customs agents "Imports of harmful waste have been successfully prevented," the administration reported.

It is hoped that with a continued cooperative law enforcement focus on illegal exports at home and enhanced coordination with law enforcement agencies abroad, that the U.S. and all nations may collectively be in a position to detect, respond and therefore deter illegal shipments.

CONCLUSION:

The United States environmental protection efforts will continue to emphasize and improve the enforcement networks that reach every municipality and extent beyond our national borders. In addition to building alliances with other nations and international organizations, EPA is stepping up its cooperative work with state and local officials. Cross training, information sharing and joint operations are three areas of focus. In this time of scarce public resources, it is more important than ever that government entities at all levels work effectively together.

We are not suggesting that strong enforcement alone solves all environmental problems, but the United States experience has demonstrated that without strong laws with consistent and fair enforcement there is little chance for success for even the most well intended environmental program. Moreover, there is no fairness for those who do pay the costs associated with improving their environmental practices when noncompliance tolerated and small incentive for those who would do so.

While all nations environmental enforcement processes must evolve distinctively, it is hoped that the experience of the U.S. may have wider application and that we may learn from your experience as well. Further, it is our hope that this conference may enhance cooperation throughout the Americas and lend impetus to mutual assistance efforts in the enforcement of laws which protect the environment.

OTHER RELEVANT INITIATIVES

G8 Survey of International Environmental Crime

Report Prepared by
The United Kingdom

Executive Summary

Annexes

This report was commissioned by the Department of Environment, Transport and the Regions. The views expressed in this paper are those of the commissioned consultant and do not necessarily represent the views of Her Majesty's Government.

EXECUTIVE SUMMARY

In April 1998, G8 Environment Ministers agreed the need to combat violations of Multilateral Environmental Agreements, particularly CITES, the Basel Convention, and the Montreal Protocol (concerning trade in wildlife, hazardous waste and ozone-depleting substances respectively). UK Ministers are increasingly committed to effective enforcement of transboundary environmental crime.

There is little substantive evidence to indicate whether UK organised criminal groups have moved into environmental crime.

However, there is evidence of methods being used similar to those of organised criminal groups (e.g. forged documents and other fraud, and carefully planned trade routes). The topic is thus of considerable concern and needs to remain on the UK's national and international agenda.

The scarcity of acceptable, accessible and comparable statistical data makes it difficult to depict with precision the current situation in the UK, and even more difficult to tackle environmental crime in a co-ordinated, cohesive fashion. Most evidence is anecdotal; with the exception of certain wildlife offences, the police are not required to "notify" environmental offences separately from the vast mass of "miscellaneous" crime.

Inadequate data may be restricting information exchange among enforcement and policy bodies, both within the UK and internationally (e.g. with the Interpol network and to/from Convention Secretariats). Multi-agency approaches and co-operation are increasing, needs to be supplemented by improved co-ordination of databases.

Enforcement agencies would also benefit from sharing their training-related experiences and co-ordinating their training policies. There is concern that training may be failing to keep pace with the development of environmental crime.

Violations of Multilateral Environmental Agreements are mainly covered by criminal law, but offences rarely come to court. No prosecutions have been brought for illegal trade in ozone-depleting substances or hazardous waste. Non-prosecution enforcement tools - such as formal caution and refusing entry to illegal cargoes - are used, with some success. Nevertheless, without targeted awareness campaigns, these may not suffice as deterrents. Potential profits are high, risks of detection comparatively low, the possibility of prosecution even slighter, and the likely actual resulting penalties insufficient.

Enforcement activity also suffers from fragmented input and resource constraints. Few opportunities and certainly no cohesive structure exists currently for obtaining and articulating a clear strategic focus.

1. INTRODUCTION

1.1 During the second half of the 1990s the UK Government became concerned about the extent to

which environmental legislation had been ignored or deliberately breached by criminals, in the UK, within the European Union (EU) and internationally. In April 1998 G8 Environmental Ministers agreed to address the need to combat violations of Multinational Environmental Agreements (MEAs), particularly with regard to wildlife, hazardous wastes and ozone depleting chemicals.

1.2 This concern was taken up by G8 Experts on Transnational Crime (the Lyon Group) who decided in November 1998 to call for national reports from member nations assessing the extent of organised activity in environmental crime and outlining their current policies and practices in regard to implementing and enforcing the three relevant MEAs, namely:

- The 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- The 1989 Basel Convention on Transboundary Movements of Hazardous Wastes
- The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer

1.3 This paper is the UK's response to the call from the Lyon Group. It follows the structure of the agreed G8 Guidelines for National Reports (copy at **Annex 1**), and includes also some additional information on radioactive substances which are not covered by a MEA.

1.4 There is an increasing commitment from UK Ministers to ensure that more effective action is taken (and seen to be taken) to tackle environmental crime. This has led to a number of developments at strategic and managerial level to improve implementation and enforcement in the UK. Arrangements have been introduced or given fresh impetus for improved liaison between policy makers and enforcement agencies (i.e., HMCE, Police, EA, and in certain circumstances with reputable non-governmental organisations (NGOs)), especially those dealing with wildlife crime and hazardous wastes. A range of initiatives is being proposed for getting environmental crime taken more seriously by the agencies themselves, by the judicial authorities, and by the public at large.

1.5 However, there is a need for a clearer strategic lead to improve on-the-ground enforcement activities. Co-ordination of effort and information sharing is variable: different agencies have different practises; some regions or offices of environmental enforcement agencies are better organised (and motivated) than others; there are financial and manpower constraints across the board; none of the national training schemes available to enforcement officers outside of the environment agencies concentrate on violations of environmental legislation; uncertainty within the judiciary is reflected by inconsistencies in the level of penalties imposed; and statistical information is hard to come by about environmental crime as a whole, the number and type of offences, the criminals involved, their nationality, how they operate and whether any of them are organised as extensively as, say, drug rings.

1.6 There is the additional complication of dealing with transboundary crime inside the EU. Because the EU provides for free movement of people and goods, transboundary movements between member states are not subject to routine customs checks, although enforcement checks in some areas, e.g., on transboundary shipments of waste, are possible through co-operation between enforcement authorities in different countries.

1.7 It is not yet clear whether the Council of Europe Convention on the Protection of the Environment through Criminal Law will, when it enters into force, lead to any practical improvements in the implementation or enforcement of MEAs by member states. It is likely to have greater impact on those member states which do not extensively use criminal law to enforce environmental obligations.

1.8 This UK report (compiled in March 1999) covers a transitional period when a number of improvements are under serious consideration but not yet in practice. How effective they prove to be will depend on the extent to which a greater strategic focus is given, how high-level decisions are translated into better enforcement capabilities, how far new or better managed resources are made available, and what in practice is done to improve training, information systems and sharing of information.

2. GENERAL INFORMATION/CONTACTS

2.1 Details of the main contacts in relevant government Ministries or agencies are set out in

Annex 2.

2.2 Policy responsibility for international environmental crime and for domestic implementation

and enforcement within the United Kingdom rests with the Department for Environment, Transport and the Regions (DETR).

2.3 The Home Office is responsible for policy on serious and organised crime both nationally and internationally and for the Police. Rules and procedures for police notifications of offences also fall to the Home Office.

2.4 Responsibility for the enforcement of environmental legislation for radioactive substances, integrated pollution control, and waste offences rest with the Environment Agency in England and Wales, the Scottish Environmental Protection Agency (SEPA) in Scotland, and the Environment and Heritage Service (EHS) - an agency of the Department of Environment for Northern Ireland. The police generally enforce wildlife offences, and have a wildlife liaison network which works closely with DETR.

2.5 The Environment Agency in England and Wales (there are separate but similar arrangements for Scotland and Northern Ireland) is empowered to investigate and prosecute specific environmental offences, mainly concerned with wastes, radioactive materials (including radioactive waste), and pollution.

2.6 HM Customs and Excise (HMCE) are responsible for enforcing controls of imports from and exports to non-EU states. They have enforcement powers over intra-Community movements of goods only on a limited number of goods such as drugs, firearms, pornography - these do not normally include CITES goods, ODS, or waste. HMCE may, however, pass on information about movements of goods that may be subject to controls exercised by other agencies.

2.7 There is an across the board mechanism for liaison and exchange of information in the form of the Interpol Environmental Crime Group (UK) (IECG(UK)) which brings together relevant enforcement agencies and relevant policy divisions in DETR and other government Ministries. IECG(UK) is developing as the main forum for considering strategic and operational aspects of 2 of the MEAs (Basel and CITES) of concern to the G8, as well as issues involving radioactivity. Its remit could be expanded to include the Montreal Protocol.

2.8 There is also the EU Network for Implementation and Enforcement of Environmental Law (IMPEL). IMPEL is an informal network of inspection and enforcement agencies whose role is to promote the exchange of information, experience and best practice with the aim of improving the consistency and effectiveness of implementation and enforcement of environmental law across the Community. Whilst it has not, so far, focused specifically on environmental crime, a number of projects and Groups under the IMPEL umbrella have looked at action to prevent illegal transboundary activity.

2.9 Significant changes are under way in the UK in relation to devolution of UK Government functions to the Scottish Parliament, the Welsh Assembly and the Northern Ireland Assembly. Negotiations for international commitments will continue to be conducted by the United Kingdom Government, but environmental policy and implementation in many areas will become the responsibility of devolved administrations.

CITES

2.10 Policy responsibility for illegal trade in endangered species rests with DETR's Global Wildlife Division. DETR is the CITES Management Authority for Great Britain for implementation, enforcement and issuing permits and certificates for legitimate trade: for Northern Ireland this function is carried out by the Department of Agriculture NI (DANI).

2.11 DETR also operates a Wildlife Crime and Inspectorate Branch which acts as the liaison point for investigators seeking information from DETR's records of wildlife keepers and traders. A panel of c.70 part-time Wildlife Inspectors visit the premises of keepers, breeders, import/exporters, and traders to check compliance with relevant regulations, including those related to CITES.

2.12 HMCE are primarily responsible for enforcing import and export controls to countries outside the EU. There is a CITES focal point in all HMCE's Collections (i.e., local offices) which is responsible for collating data for central analysis. The information is passed to DETR and a summary is published in the HMCE's Annual Reports. The police have responsibility for enforcing sales and other "domestic" controls. HMCE (sometimes assisted by the police) have extensive enforcement powers (including search, seizure, prosecution) for movements between the UK and non EU countries.

2.13 The Partnership for Action Against Wildlife Crime (PAW) brings together the police, HMCE, DETR, other Government Departments, and interested NGOs to provide an overview of enforcement of

wildlife law (including CITES) and to address strategic issues. PAW has recently been re-organised in response to increasing political interest in environmental crime.

Basel Convention

2.14 DETR's Waste Policy Division has responsibility for developing policies and legislation (international and national) on all wastes, including hazardous wastes and their transboundary movements.

2.15 The EA in England and Wales, SEPA in Scotland, and EHS in Northern Ireland (with specific delegation to NI District Councils) are the lead enforcement authorities within their respective jurisdictions.

2.16 In 1996 the UK established a Working Group to bring together those enforcement authorities which have a role in combating international waste crime. Its role is to identify the scale and types of waste crime, strengthen existing enforcement practices (through greater exchange of information and inter-agency co-operation) as well as to address wider strategic issues. Membership of the group includes DETR, HMCE, the police, the Environment Agencies as well as key NGOs and industry associations.

Montreal Protocol

2.17 DETR's Global Atmosphere Division has responsibility for domestic and international policy and control of CFCs and other ozone depleting substances (ODS) controlled by the Protocol.

2.18 HMCE are responsible for monitoring imports, assuring that they are covered by the appropriate import licence and taking any action relating to import and export offences under the Customs and Excise Management Act.

3. NATURE AND EXTENT OF ACTIVITY

3.1 Little hard evidence has come to light to suggest that organised crime groups operating in the UK in areas such as drugs or prostitution have moved into environmental crime here, even though the potential profits are high and risks of detection comparatively low. There is, however, anecdotal evidence of the involvement of organised criminals in waste-related crime although this has yet to be substantiated through the courts.

3.2 There may indeed be organised criminals from other countries who are involved in smuggling into or through the UK (e.g., caviar, tiger parts, ivory or ODS). However, there is, as yet, no hard evidence that they are connected with British criminal gangs in other sectors.

3.3 It is thought most likely that the three sectors covered by the MEAs under consideration have generated their own criminals in the UK, both individuals and groups. Many are thought to be active only within the UK, for example traders in or collectors of wildlife who have become involved in illegal activities for reasons of greed or obsession. There is also evidence of British criminals operating on a wider international basis, for example as couriers. There are a number of firms on the fringes of legitimate waste management who are unscrupulous enough to undertake illegal activities such as flytipping of transboundary waste shipments if the profits are high enough. Although none have been prosecuted for illegal transboundary shipments of hazardous waste, there are a number of instances where other enforcement tools, such as the return of illegal transboundary waste shipments, have been used to good effect by the Environment Agency. Similarly there may be firms in sectors such as refrigerants whose operations are mainly legitimate but who might be tempted - at the right price - to deal in illegally acquired ODS. While those involved in environmental crime are not thought to come from "traditional" organised criminal groups, they adopt the same methods, including forged documents, false accounting, other aspects of fraud, and, on occasion, intimidation. It takes time, knowledge, contacts, and resources to ship wildlife, or to obtain false documentation for shipping hazardous waste. Experience with offences involving radioactive materials has so far been restricted to illegal imports of radioactively contaminated scrap metals due to poor control of sources, rather than deliberate criminal intent.

3.4 There is no firm evidence that criminals who have successfully organised themselves in wildlife, waste or ODS crime have branched out into other areas.

3.5 Although there is no statistical evidence the rate of prosecutions for environmental crime in its broadest sense is thought to be rising, probably because of more effective detection and enforcement rather than any increase in criminal activities. Some of this concerns "genuinely" legitimate firms convicted of polluting emissions or technical contravention of regulations rather than deliberate contraventions. There are how-

ever a good number of firms and individuals who have no hesitation in blatantly flouting the existing UK laws. The use of enforcement tools other than prosecution, such as formal caution and return of illegal transboundary waste traffic, is currently not widely reported.

3.6 Many environmental crimes are not "notifiable" - that is there is no requirement on the police to report them to the Home Office. All those that are notified, are classified under a catch-all "miscellaneous" category and are not readily identifiable. HMCE keep full records of their own prosecutions but not those of other agencies. It is therefore very difficult to assess the number of cases brought to court or to draw up profiles of offenders from records held by local police forces, individual courts or the local offices/branches of other agencies.

3.7 There is also only anecdotal information about the amount or value of illegal traffic involving the UK, or even the EU as a whole, in relation to the three MEAs under consideration.

3.8 On the question of forms of transport used for smuggling the UK's geographical position means that illegal goods must arrive or leave by air or sea, with onward journeys usually by car or lorry depending on size. Smuggling by way of the Channel Tunnel rail link is not yet a serious factor.

The role of NGOs

3.9 Opinions differ in the UK as to the role of NGOs. It is unclear how far NGOs could or should be more closely involved in intelligence gathering, particularly in areas where knowledge about the nature and extent of illegal activities is patchy.

3.10 NGO participation in liaison bodies like PAW and the Working Group on International Waste Crime has been constructive. For example, the Royal Society for the Protection of Birds (RSPB), which has over a million members in England and Wales alone, is an active and valued participant in the detection and prosecution of bird-related crime, and it publishes regular information about cases involving birds. More general information on CITES offences is published by TRAFFIC, a NGO set up by WWF and the Geneva based World Conservation Union to monitor trade in endangered species (legal and illegal). The Environmental Investigation Agency (EIA) has a very high profile in exposing environmental crime world wide and its work on illegal trading in ODS is well researched and, it is said, greatly appreciated by enforcement authorities in the USA. For incidents involving radioactivity, Trade Associations within the UK metal recycling industry are also making a significant contribution to the work of the enforcement agencies, via reporting arrangements of potential crimes.

3.11 Some doubts exist about the wisdom of encouraging NGOs to expose crimes concerning dangerous waste or ODS. However, given the limited resources available to the Agencies concerned to positively look for wrongdoing in these areas there could be considerable scope for NGOs with investigative competence to fill the gap. They could gather and publicise evidence and/or allegations - sometimes accurate, sometimes unfounded scare stories - which could be presented as criticisms of government inaction. It is true that NGOs are not constrained by the rules of procedure or even of behaviour applied to official enforcement agencies, and it is difficult to define a line between acceptable investigative methods and those that involve breaking the law. Given the UK's commitment to greater integration and co-ordination of effort in tacking environmental crime it should be possible to find ways of using NGOs as a valuable resource, with their methods and findings subject to some form of scrutiny and verification. But NGOs themselves may be opposed to any suggestion that their voluntary efforts could be employed as a substitute for more effective action by the statutory agencies.

CITES

3.12 As CITES was concluded in 1973 more than 15 years before the other two MEAs dealt with in this report, it is not surprising that evidence has been built up in the form of documented case studies of successful action against smugglers and illegal traders. Some of these are well described in "By Hook or by Crook", a 1998 reference manual on illegal wildlife trade and prosecutions in the UK, published by the RSPB and WWF with support from TRAFFIC, DETR and PAW. The cases include:

3.13 **Operation Dorian**. This concerned an international bird smuggling ring centred in the UK with links in Australia, New Zealand, South Africa, France and Switzerland. The estimated total value of birds smuggled was at least £400,000 and possibly £1million. After a major investigation, involving HMCE and agencies in the countries concerned 5 individuals were charged. They pleaded guilty and their sentences ranged from 8 months in prison to 200 hours of community service, sur-

prisingly lenient in view of the availability of up to 7 years' imprisonment. Unusually, however, the court made an order to confiscate assets of £25,000, a penalty and deterrent rarely used in these cases.

3.14 **Operation Indiana** This was another customs investigation into the activities of a trader in taxidermy specimens who owned a legitimate business but also dealt illegally in dead animals, parts and derivatives. As a result of following up information from NGOs between 1985 and 1995, the trader was fined in England for illegal possession of wildlife and similar fines were imposed in France, Australia and Germany. The fines did not act as much of a deterrent as he was again before the British courts in 1996 when he was sentenced to 36 months' imprisonment, reduced to 24 months because he pleaded guilty. The commercial value of the goods dealt has only been quantified as "considerable". It became clear from the activities of this individual that once illegal specimens entered the EU they could be transported throughout the member states virtually unhindered.

3.15 **Operation Charm** This is an ongoing police initiative to tackle illegal trade in tigers and other endangered species used in Traditional East Asian Medicines (TEAM). In 1994 an investigation by TRAFFIC found illegal specimens in 50% of retail outlets dealing with TEAM in some major English cities. This information was followed up by the police in a high profile operation. In 1995 raids were made on 14 pharmacies and supermarkets selling TEAM in London, Birmingham and Manchester; 20,000 items were seized (including tiger parts, ivory and rhino horn); 9 people were charged and pleaded guilty; sentences ranged from a £3,000 fine in London, £1,000 fine in Birmingham, and conditional discharges in Manchester.

3.16 In spite of the lenient penalties imposed in the first stage of Operation Charm there is now firm evidence that open trade in illegal products has greatly diminished although there is still a flourishing underground market. Most recently the police have offered traders an amnesty to find out if they are stocking endangered species, together with an accreditation scheme (with window stickers) whereby they can sign an undertaking not to sell illegal products. It has so far not been part of the operation to investigate how the illegal goods entered the UK and whether organised criminals control the smuggling links: but as most of the products involved come from China there is at least a possibility of Triad style involvement.

3.17 **Operation Morello** In 1998 four people were convicted of conspiracy to sell rhino horns valued at £2.8 Million. The main conspirator was a convicted murderer serving a life sentence but expecting to be shortly released on parole. He had apparently been organising the conspiracy from prison. On appeal his sentence of a further 15 months' imprisonment was upheld, but on a technicality the judge allowed the seized rhino horn to be reclaimed. This case illustrates the high value of illegal trade and the inadequacies of the judicial system in penalising offenders: and although the key conspirator was a known criminal there is no indication that they were part of any larger organised crime group.

3.18 These case studies are only indicative of the range and type of CITES crime. There are no comprehensive centralised data for either domestic or CITES prosecutions. HMCE keep some records and provide valuable information about a number of successful prosecutions (see **Annex 4**). In addition they record seizures of illegal imports: for CITES related specimens there were in 1997/98 3,000 seizures of illegal live species; 22,600 plants (21,000 relating to one species of tree fern); and 12,000 derivatives.

3.19 In future it is hoped that new Home Office rules for offences that must be centrally notified by the police (under the Control of Trade in Endangered Species Regulations) will enable a start to be made in collecting and analysing information on a nationwide basis.

Basel Convention

3.20 Whilst there have been no UK prosecutions for illegal transboundary movements of hazardous wastes, the EA has been able to use other enforcement measures to effect such as the return of illegal transboundary waste shipments to their country of origin.

3.21 There have been some alarming press and television features about dangerous chemicals and waste being imported into the UK, including one that lorries were being driven along British motorways deliberately spilling their loads: so far these stories have not been substantiated. NGOs have also been voicing concern about dangerous material from other EU countries being sent to the UK for indiscriminate dumping.

3.22 So far there has been only one substantiated case, where the EA received a genuine tip-off concerning a chemical plant in a EU country which loaded several lorries with a particularly dangerous cock-

tail of chemical waste, then sending it on to England, by ferry, with false documents. The lorries were parked in a residential urban area. When the local police were alerted they had no option but to remove the vehicles for reasons of public health and safety and arrange for incineration. There was subsequently no trace of the drivers or anyone else concerned and no further enforcement action could be taken.

3.23 Currently, enforcement authorities in another EU country are investigating the extent to which their ports are being used for dumping or exporting dangerous waste. They have reported to Interpol intelligence that trailers are being stolen, loaded with dangerous waste and sent across the Channel to the UK where they are abandoned in lorry parks. If such consignments have documentation that they contain legitimate goods for intra-EU trade HMCE would have no reason to be suspicious and no powers to detain the vehicles. This is an ongoing investigation.

Montreal Protocol

3.24 There have been no UK prosecutions for illegal trading in ODS.

3.25 In response to allegations from NGOs such as Greenpeace and the EIA (and supported by a 1995 industry estimate that 20% of CFCs on sale globally were bought on the black market) HMCE undertook a Strategic Threat Assessment to identify the extent of illicit trade in the UK. It found that the domestic market for CFCs was too small to support significant criminal activity and little evidence of major consignments transiting the UK. However HMCE accept that CFCs and other ODS can be easily disguised and under EU rules of free movement of goods it is quite possible that illegal consignments find their way into or through the UK. It has proved very difficult to estimate the amount of CFCs that has been illegally imported into the EU. However, in 1996 industry organisations and NGOs estimated illegal CFC trade within the EU at between 6,000 and 10,000 metric tonnes a year, although no evidence has been found to prove or disprove such figures.

3.26 A report by the EIA (published in late 1998) has named a number of British firms said to be involved with CFCs and halons smuggled into the EU from Russia or more recently China. Some of these firms have been offering the ODS for sale, sometimes to major reputable companies, or arranging their transhipment often to the USA. The EIA point out that if the controls were being fully implemented the price of CFCs should have risen sharply as the supply of CFCs was reduced. However, the price has not risen as expected, and this could be an indication that the market is still being supplied by illegally imported CFCs.

3.27 The EIA suspect that "lost" consignments of virgin or recycled CFCs could also be on the market. Production and consumption are reported directly by the firms involved to the European Commission which for reasons of commercial confidentiality passes on only aggregated data to the Ozone Secretariat. It is therefore virtually impossible for an NGO - or a member state enforcement agency - to check the security of consignments between manufacture and export. This suspicion seemed well founded when part of an export consignment from a UK manufacturer was reported missing at the British port of exit. The police were called in and an extensive investigation mounted: however it was eventually established that owing to a technical oversight the CFCs had not actually left the manufacturing plant.

3.28 The EIA have passed a substantial amount of information to the European Commission which is now beginning to take illegal trading seriously. Asked for a profile of the UK firms involved, the EIA offered the guarded comment that they covered a wide range "from larger legitimate and well-established corporate [firms] through to fly-by-night opportunistic traders looking for a quick profit".

4. LEGAL INFRASTRUCTURE

General

4.1 In practice environmental crime in the UK is dealt with primarily under criminal law. Civil proceedings may arise at a secondary stage, for example for reclaiming seized goods. It is also conceivable that damage caused by shipments of hazardous waste could be considered under civil law (e.g., for liability purposes) but there have been no cases so far.

4.2 No specific problems have been reported in bringing proceedings for environmental violations other than those that are common to crime in general, e.g., difficulties in detecting offences, gathering firm evidence, and convincing enforcement authorities or prosecutors of the seriousness of an offence or the likelihood of a successful prosecution, and handling of exhibits (e.g. rare wildlife).

4.3 There are no specialist environmental courts or tribunals in the UK although DETR is studying

the possible benefits and feasibility of establishing environmental courts.

4.4 It should be noted that the EU is constituted as a single market, allowing free movement of goods and individuals between member states. Strictly speaking therefore there is no international trade within the EU. This imposes constraints on controlling or monitoring internal transboundary movements, even when individual member states have accepted national responsibilities as parties to the three MEAs under consideration.

CITES

4.5 EC Regulations 338 and 939 of 1997 provide for controlling and monitoring trade in endangered species into and out of the EU. These Regulations, which are directly applicable in member states, effectively implement CITES in the UK. DETR is responsible for policy, legislation and international negotiations and also issues the necessary permits or certificates in Great Britain: in Northern Ireland licensing is administered by the Department of Agriculture.

4.6 Within the UK one of the main enforcement instruments is the Customs and Excise Management Act 1979 (CEMA). This deals with import or export of banned or restricted "goods" (including endangered species or parts of them). The Control of Trade in Endangered Species (Enforcement) Regulations 1997 known as COTES) is the main basis for police prosecutions.

4.7 In England and Wales the legal process for taking CITES offences from detection, through the courts and, where appropriate, to appeal is shown in the diagram at **ANNEX 3.** The majority of wildlife crimes (including CITES related) are dealt with summarily before magistrates. More serious offences are dealt with at a trial by jury at a Crown Court. Thereafter there are various avenues of appeal including, ultimately, to the European Court of Justice in The Hague.

4.8 The process in England and Wales is based on Common Law which does not apply in Scotland where the legal system is nearer to that of the United States and a number of countries in Continental Europe. There are however similarities: where decisions to prosecute are taken in England and Wales by the Crown Prosecution Service (CPS) this function falls to the Procurator Fiscal in Scotland: and the Sheriffs Court in Scotland is roughly equivalent to the Magistrates Court in England and Wales. Procedures in Northern Ireland approximate more closely to those in England and Wales.

Basel Convention

4.9 EC Regulation 259/93 establishes systems to monitor and control shipments of wastes within, into and out of the EU. The Regulation is intended to implement Basel but also deals with a much wider range of wastes. A 1997 amendment to the Convention (not yet in force but already implemented by the EU) provides for a ban of exports of hazardous wastes to certain non-OECD countries.

4.10 Additional controls on the shipment of waste into or out of the UK are set out in the United Kingdom Management Plan for Exports and Imports of Waste ("the Plan"). The Plan reflects long-standing UK policies of self-sufficiency in waste disposal and the proximity principle, whereby waste should be disposed of in, or as close as possible to, the country of origin. At the same time, the Plan seeks to preserve the trade in wastes for genuine and environmentally sound recovery operations in line with international agreements.

4.11 Offences arising out of the Basel Convention would be dealt with under the same legal procedures described at 4.7 and 4.8.

Montreal Protocol

4.12 EU Regulation 3093/94 establishes controls of production, import, export, supply, use and recovery of the Protocol's controlled ozone depleting substances (ODS). It is directly applicable in the UK where the DETR is responsible for most aspects of policy, legislation and negotiations: the Department of Trade and Industry is the lead government department for matters concerning ODS production.

4.13 There is a Statutory Instrument (SI/506/96) which sets out the relevant enforcement authorities and penalties for non-compliance of the EC Regulation. It gives powers to HMCE to detain goods which have entered the country without an import licence, and powers to the Secretary of State to require the importer to dispose of the detained goods or remove them from the UK.

4.14 If imports were deliberately misdescribed at import or the goods not declared, HMCE could use powers under the Customs and Excise Management Act 1979 (CEMA) to prosecute for the customs offences involved.

4.15 Political agreement was reached last December on a new EC Regulation on ozone-depleting substances which is likely to enter into force later this year. The new regulation will introduce more

stringent controls than the Montreal Protocol in an umber of areas. For example, it is likely to include a general ban on the supply and use of CFCs with only a few limited exceptions. The new Regulation will also introduce an export licensing system, as required by the 1997 Montreal Amendment to the Protocol, which will facilitate monitoring and cross-checking of trade in ODS.

5. TRAINING OF ENFORCEMENT AGENCIES

5.1 Whilst enforcement officers from individual agencies undergo some relevant training, and whilst there is increasing inter-agency co-operation in training (which has resulted in more joint enforcement projects), there are signs that such training is lagging behind the growing concern of environmental crime.

5.2 Police officers undergo rigorous law enforcement training throughout their careers, but very little is specifically designed to enable them to tackle violations of environmental law, at least on a national or even regional basis. No training is given in hazardous wastes or ODS which are not primarily matters for police enforcement.

5.3 There are however Wildlife Liaison Officers in every police force who are regularly involved in what may be called informal training. They attend conferences and seminars for exchanging information on intelligence gathering and best practice. They bring in speakers from the CPS, DETR and HMCE as well as advisory bodies (such as English Nature) and NGOs (such as WWF and RSPB). Some police forces have "in house" training on CITES when there is special demand and when resources are available.

5.4 HMCE is developing a module on CITES for its training courses but, in view of its currently limited enforcement role in other areas, does not intend to pay special attention to transboundary wastes, ODS or environmental crime generally.

5.5 There are exchanges of information between agencies on an ad hoc basis, e.g., between Police Wildlife Liaison Officers (PWLOs) and HMCE on CITES matters, but these do not amount to formal training.

5.6 DETR's Wildlife Inspectorate team regularly attends and/or provides input to training seminars and other events organised by the enforcement agencies. In addition, members of the panel of 70 part-time Wildlife Inspectors are available to provide specialist identification assistance to Police and Customs Officers.

5.7 Enforcement and prosecution officers in the EA (and their Scottish and Northern Ireland counterparts) are technically or professionally qualified in their specialist areas, such as air pollution or hazardous wastes. They will continue to receive internal and external training during their careers. Internal training cover, amongst other things, the EA enforcement policy and functional guidelines, the Police and Criminal Evidence Act (PACE), and other relevant enforcement issues. In addition, the police or HMCE may give talks or advice to EA staff on general and case-specific matters.

5.8 There are no systematic arrangements for informing the judiciary about environmental crime generally or about the most appropriate levels of sentencing for the more serious offences. However, the EA has provided some focused training to magistrates on pollution related offences. One of PAW's recently identified key tasks is to raise the general level of awareness about wildlife crime issues amongst the judiciary. The publication of "By Hook or by Crook" is considered as a first step in this process.

6. PENALTIES/DETERRENTS

6.1 Most of the agencies concerned accept that the level of penalties available for crimes involving wildlife, hazardous wastes and ODS are adequate. Under relevant Acts and Regulations the maximum sentences can be as high as 7 years' imprisonment (in exceptional circumstances 10 years) and/or an unlimited fine. There is on the other hand considerable dissatisfaction about the actual level of penalties imposed, and inconsistencies in severity between different courts.

6.2 The possibility of suffering the maximum penalty may deter individuals tempted by the opportunity of a quick illegal profit, but this is unlikely to worry determined or experienced violators. The UK agencies are therefore prepared to direct more effort at prevention, e.g., by publicising successful prosecutions, by well-targeted awareness raising campaigns among trade associations, NGOs as well as members of the public. The return of waste illegally imported may act as a deterrent for some potential offenders, as may the multi-agency road checks that the EA undertakes periodically with the police and other enforcement agencies. Both domestic and international traffic is subject to these road checks, intended to monitor and regulate the movement of waste. Uniform police must be present at each road check, as EA officers have no stop-and-search powers. This often mitigates the effectiveness of enforcement, as when EA officers see potentially

illegal waste being transported by a moving vehicle and are unable to stop it.

6.3 There are as yet only a few examples of deterring wrong doing by offering incentives such as the accreditation scheme for reputable retailers of TEAM.

CITES

6.4 Under CEMA customs officers are empowered to search premises and/or seize or detain illegal goods under specified circumstances. Maximum penalties range from 2 to 7 years' imprisonment and fines of up to £5,000 or in some instances without limit. Fraudulent sale, which is not usually presented as a CITES offence, can warrant up to 10 years in prison, where linked to conspiracy charges.

6.5 **Annex 4** illustrates on a sample basis the range of penalties imposed for successful HMCE prosecutions for CITES offences.

6.6 Similar levels of penalties are available under COTES, although the maximum custodial sentence is 2 years.

6.7 In practice penalties imposed are nearly always well below the maximum, and may even be suspended or downgraded to cautions.

Basel Convention

6.8 The maximum penalties for illegal transboundary movements of hazardous waste are the same as for illegal domestic movements, that is £5,000 or, for conviction on indictment, an unlimited fine and imprisonment for up to two years. The unlawful disposal or recovery of waste in the UK, whether it has arisen from another country or from within the UK, is subject to significantly greater penalties. To date there have been no prosecutions in the UK for illegal transboundary movements of hazardous waste. According to the EA the average level of fine for convictions of UK waste crime generally is £1,100.

Montreal Protocol

6.9 Offences relating to the illegal importation of ODS could be dealt with under Regulations (SI/506) which make it an offence to bring in ODS without an import licence. The penalty on indictment would be an unlimited fine. If there were a conviction under CEMA, the maximum penalty on indictment would be an unlimited fine and/or up to two years' imprisonment. To date, however, there have been no prosecutions to test the adequacy of these penalties.

7. STATISTICAL INFORMATION

7.1 In the UK, crimes such as drug smuggling or murder, are categorised by the Home Office as separately "notifiable" by the police, requiring information to be centrally collected in an agreed format. This allows data to be analysed in regard to overall trends and regional or other variations. Regularly published information is given wide publicity in the media and is of considerable interest to NGOs, academics and politicians. It is also used by the police as a basis for planning future deployment of human and financial resources.

7.2 Environmental crime is not separately "classified" and is included in the catch-all category of "Miscellaneous". It is therefore extremely difficult to assemble comprehensive statistical information about environmental crime as a whole or individual aspects. There is also the problem of definition. The police are on the whole concerned with criminal intent whereas offences dealt with by the EA are more broadly based, including accidental or careless emissions of pollutants. HMCE have good records but they are not necessarily centrally accessible or available to other agencies. EA is developing a "convictions database", a broadly welcomed initiative.

7.3 Given time a diligent researcher could in theory put together a reasonably broad picture of prosecutions for, say, illegal wildlife trade but he or she might struggle to extract information from official enforcement sources or court records about individuals, groups of individuals or trading companies. Legislation presupposes that environmental information should be publicly available except where access could be refused for reasons of privacy or commercial confidentiality. There are widely differing statistical methodologies. There would also be problems of disaggregating prosecutions or types of offences into national, EU and international categories, as well as within specific areas of environmental crime - pollution, damage to habitats or species, exposure to dangerous chemicals, and so on.

7.4 The various official liaison groups concerned with enhancing the UK's efforts to tackle environmental crime are deeply concerned about the lack of acceptable, accessible and comparable statistical information. Examples of best practice in other countries (such as New Zealand) are being studied and there is keen interest in the lessons to be

learned from, e.g., Norway where there is a database on crime and criminals (including environmental crime), financed by three government departments, which provides instantly accessible information to authorised enforcement agencies. Co-ordinating the myriad of existing databases is said to be a key UK objective for the future.

7.5 There is no single government publication about the nature and extent of environmental crime as a whole in or affecting the UK. Articles appear frequently in newspapers and journals about specific allegations and many of them are investigated by the relevant agencies: some are followed up and result in successful prosecutions; others turn out to be too vague or inaccurate. There are from time to time features on television or in print exposing environmental scandals which may on investigation lead to firm evidence of crime or turn out to be misleading or even based on hoaxes. They may even form part of campaigns by individual sectors of the media or NGOs against particular individuals or companies.

7.6 Most published studies, for example by the UN Environment Programme or NGOs, are concerned either with global aspects of environmental crime or with specific instances or trends relating to domestic infringements. There is very little published material about the involvement of the UK or British criminals in offences arising out of the three MEAs under consideration in this report.

7.7 Further information could be requested from the government departments and agencies listed in **Annex 2**. Possible avenues for obtaining further information are given below.

CITES

7.8 The second revised edition of "Wildlife Crime: a Guide to Wildlife Law Enforcement in the UK" was published in 1998 and is obtainable from HM Stationery Office (£30). It provides enforcement officers with practical guidance to CITES and related legislation and gives case study examples of a range of prosecutions.

7.9 A summary of CITES offences dealt with by HMCE is published in H M Commissioner's Annual Reports.

7.10 "By Hook or by Crook" by Jane Holden, published by the RSPB, The Lodge, Sandy, Beds SG19 2DL. This 1998 publication was funded primarily by RSPB, WWF/UK and also by DETR. As a reference manual on illegal wildlife trade and prosecutions (including CITES offences) in the UK it is an indispensable tool for anyone interested in UK policy and enforcement in this field. The RSPB also publish regular reports on wildlife offences concerning birds.

7.11 Regular information is also provided on wildlife trade - legal as well as illegal - by TRAFFIC UK, 219c Huntingdon Road, Cambridge CB3 ODL.

7.12 Better information should now become available for certain notifiable CITES offences, but it will take time before the data collected can be centrally analysed to form a broad picture.

Basel Convention

7.13 The UK, as a contracting party, is required to submit annual reports to the Convention Secretariat in Geneva. So far the UK's submissions under the heading of successful prosecutions have been nil returns.

7.14 There are no authoritative publications on illegal transboundary shipments of hazardous wastes into or out of the UK.

Montreal Protocol

7.15 The Strategic Threat Assessment (mentioned in section 3) is not publicly available, but further information could be sought from HMCE.

7.16 Data on production and consumption of ODS are provided by producers and other EU firms to the relevant Member States and the European Commission who then send composite reports to the Ozone Secretariat in Nairobi to verify that they are complying with the Protocol controls. For reasons of confidentiality data relating to individual companies is not desegregated or made public. Enquiries into allegations about or investigations into illegal trade in ODS concerning the EU as a whole should be addressed to the Commission in Brussels.

7.16 Two EIA reports on illegal trade in ODS have provided important information about the extent to which EU member states including the UK are involved. These are "Chilling Facts about a Burning Issue" (1997) and "A Crime against Nature" (1998). They are obtainable from the EIA, 69 Old Street, London EC1V 9HX.

ANNEX 1

G8 NATIONS' SURVEY ON ENVIRONMENTAL CRIME

INTRODUCTION

International environmental crime, including trafficking in banned Ozone Depleting Substances such as CFCs, illegal shipments of hazardous wastes, and trade in protected species of wildlife, has been identified by the G8 Environmental Ministers and others as a growing problem, costing billions of dollars a year, and threatening the global environment.

At the Birmingham G8 Summit, the Heads of State endorsed the findings of the Ministers. The Lyon Group of Experts on International Crime have developed this survey to be completed by the relevant environmental and law enforcement agencies of the eight nations by February 26th, 1999. The intent of this survey is to determine what is known in each country about the extent of environmental crime, particularly the role of organised criminal activity in violating national laws which implement international environmental agreements. The results of this survey are intended to glean international patterns of environmental criminal activity, identify illegal operations which may conduct business in more than one nation, and will inform decisions by the G8 nations on how to better co-ordinate their efforts to combat international environmental crime.

General information / Contact details

For future ease of reference and to facilitate contact between G8 colleagues, please provide the following information. If possible, attach diagram (organisation chart) showing national co-ordination structure and linkages between ministries and law enforcement organisations.

- Co-ordinating organisation / unit
- Contact name, title, office address, tel., fax, e-mail
- Organisations / units involved in enforcement of environmental crime (e.g. Customs, police) and those that set policy (e.g. Environment Ministry, Regional authority)
- Contact name, title, office address, tel., fax, e-mail for these organisations / units

Nature and extent of activity

This section is designed to illustrate the extent of illegal activity, and the particular characteristics involved. Please give details, dividing activity into separate sections for cases involving: (1) smuggling CFCs in violation of the Montreal Protocol on Substances that Deplete the Ozone Layer; (2) shipments or dumping of hazardous waste in violation of international laws and agreements, including the Basel Convention, on the control of transboundary movements of hazardous wastes and their disposal; and (3) trafficking in protected species in violation of the Convention on the Illegal Trade in Endangered Species (CITES).

Examples of issues and questions to address under each section are:

- Do you suspect or have evidence that organised crime is involved in environmental crime?
- Have specialised industries (e.g. waste disposal) been infiltrated by known criminals?
- Is there an increasing or decreasing trend in legitimate trade or waste processing activity within source countries?
- Do legitimate businesses have connections with smuggling rings or known criminals?
- Have legitimate businesses been found guilty of environmental crimes?
- Has prohibited material been discovered in the hands of known criminals?
- Where persons have been arrested/detained for a violation of an environmental law, are they known for another criminal offence?
- For known violations, with which nations have criminals been trading?
- Are there links between the country of origin, nationality of any courier, and ethnic communities in the consumer country?
- In cases of violations, are known criminals involved in all aspects or only in trafficking / smuggling activities?
- What is known about the amount of traffic in illegal goods?
- Is the market for these goods regional, internal (national), or cross-boundary?
- Where cross-boundary trading has been detected, what form of transport was used to smuggle the illegal goods?

Legal infrastructure

Please outline the legal framework relating to violations of environmental law, including some or all of the following points. If possible, please provide a diagram of the judicial structure.

- Which environmental violations are legislated by criminal/penal law, and which by administrative or civil law?

- Which authorities are responsible for monitoring compliance of these laws?
- Does responsibility for bringing cases to trial rest with specialist prosecutors?
- Have you encountered any difficulties in bringing proceedings in cases of environmental violations?
- Are there any specialist courts or tribunals for dealing with environmental offences?

Training of enforcement agencies

Please give details of the current expertise of enforcement agencies and the judiciary in identifying, investigating and prosecuting environmental violations, and of any specialist training they may receive to help them fulfil their task. For example:

- What, if any, specialist training is provided to enforcement agencies?
- Are environmental violations part of general enforcement agency training, or for the specialist unit(s) only?
- Do the judicial authorities have any specialist training in environmental violations?
- Is there any guidance to judicial authorities on sentencing for environmental offences?

Penalties / deterrents

Please give details of how violations of environmental laws are punished or prevented, including the following points:

- How serious do national courts view violations of a environmental laws which implement international environmental agreements?
- What range of penalties are prescribed for such environmental offences?
- Are the penalties adequate for the types of offence involved?
- Is sentencing imposed nationally, or does it differ from case to case or from region to region?

Statistical information

Finally please give details on how statistics are compiled, and whether violations of environmental laws are included. You may wish to address the following questions:

- How are data collected on cases which have come to court?
- Are specific data on environmental crime publicly available? If so, please give details of where it may be obtained.
- Are environmental crimes recorded as part of general crime statistics or as separate subjects?
- Please provide any statistics or public records your government keeps on environmental crimes, including individuals and organisations which have been convicted and their sentences.
- Please attach any relevant annual reports, studies, articles, or publications about the nature and extent of environmental crime in your country.

ANNEX 2

LIST OF UK CONTACTS

Department of the Environment, Transport and the Regions

Co-ordinator

Sheila McCabe
Environment Protection International
Zone 4/D1, Ashdown House
123 Victoria Street
London SW1E 6DE

Tel: 0171 890 6220
Fax: 0171 890 6219
E-mail: Sheila McCabe@detr.gsi.gov.uk

Legal

Kate Cook
International Environmental Law
Zone 9/H9, Eland House
Bressenden Place
London SW1E 5DU

Tel: 0171 890 4815
Fax: 0171 890 4804
E-mail: Kate_Cook@detr.gsi.gov.uk

CITES

Rob Hepworth
Divisional Manager
Global Wildlife Division
Room 8/13a, Tollgate House
Houlton Street
Bristol BS2 9DJ

Tel: 0117 987 8277
Fax: 0117 987 8688
E-mail: Robert_Hepworth@detr.gsi.gov.uk

Nick Williams
Wildlife Crime & Inspectorate Branch
Global Wildlife Division
Room 8/08, Tollgate House
Houlton Street
Bristol BS2 9DJ

Tel: 0117 987 8997
Fax: 0117 987 8282
E-mail: Nick_Williams@detr.gsi.gov.uk

Basel Convention

Glenys Parry
Waste Policy Division
Zone 7/H15, Ashdown House
123 Victoria Street
London SW1E 6DE

Tel: 0171 890 6427
Fax: 0171 890 6409
E-mail: Glenys_Parry@detr.gsi.gov.uk

Montreal Protocol

David Calpin
Global Atmosphere Division
Zone 3/C2, Ashdown House
123 Victoria Street
London SW1E 6DE

Tel: 0171 890 5215
Fax: 0171 890 5219
E-mail: David_Calpin@detr.gsi.gov.uk

Home Office

Godfrey Stadlen
Judicial Co-operation Unit
50 Queen Anne's Gate
London SW1H 9AT

Tel: 0171 273 3923
Fax: 0171 273 4422

Lisa Dillon
Policing Organised Crime Unit
50 Queen Anne's Gate
London SW1H 9AT

Tel: 0171 273 2918
Fax: 0171 273 4112

HM Customs & Excise

Robin Cooper
Social & Environmental Policy Team
1 West New King's Beam House
22 Upper Ground
London SE1 9PJ

Tel: 0171 865 5267
Fax: 0171 865 4808

Police

Mick Brewer
Deputy Chief Constable
Warwickshire Constabulary
Police Headquarters
Leek Wooton
Warwick CV35 7QB

Tel: 01926 415004
Fax: 01926 415022

Paul Andrews
Interpol Liaison Officer
National Criminal Intelligence Service
PO Box 8000
Tinworth Street
London SE11 5EN

Tel: 0171 238 8079
Fax: 0171 238 8112

Environment Agency

Steve O'Hara
Environmental Crime Unit
Wah Kwong House
10 Albert Embankment
London SE1 7SP

Tel: 0181 305 4026
Fax: 0181 305 4052

Roy Watkinson
Hazardous Waste Policy Manager
Olton Court, 10 Warwick Road
Olton, Solihull
West Midlands

Tel: 0121 711 5931
Fax: 0121 711 5976

Bill Pryke
Chief Constable
UK Atomic Energy Authority Constabulary
Culham Laboratory
Abingdon
Oxon OX14 3DB

Tel: 01235 463760
Fax: 01235 463764

Alan D'Arcy
TransFrontier Shipments (TFS) Service
Mirwell
Carrington Lane
Sale, Cheshire M33 5NL

Tel: 0161 973 2237
Fax: 0161 976 4358

Chris Englefield
Radioactive Substances Function
PO Box 12
Richard Fairclough House
Knutsford Road
Warrington
Cheshire WA4 1HG

Tel: 01925 653999 ext.2185
Fax: 01925 413611

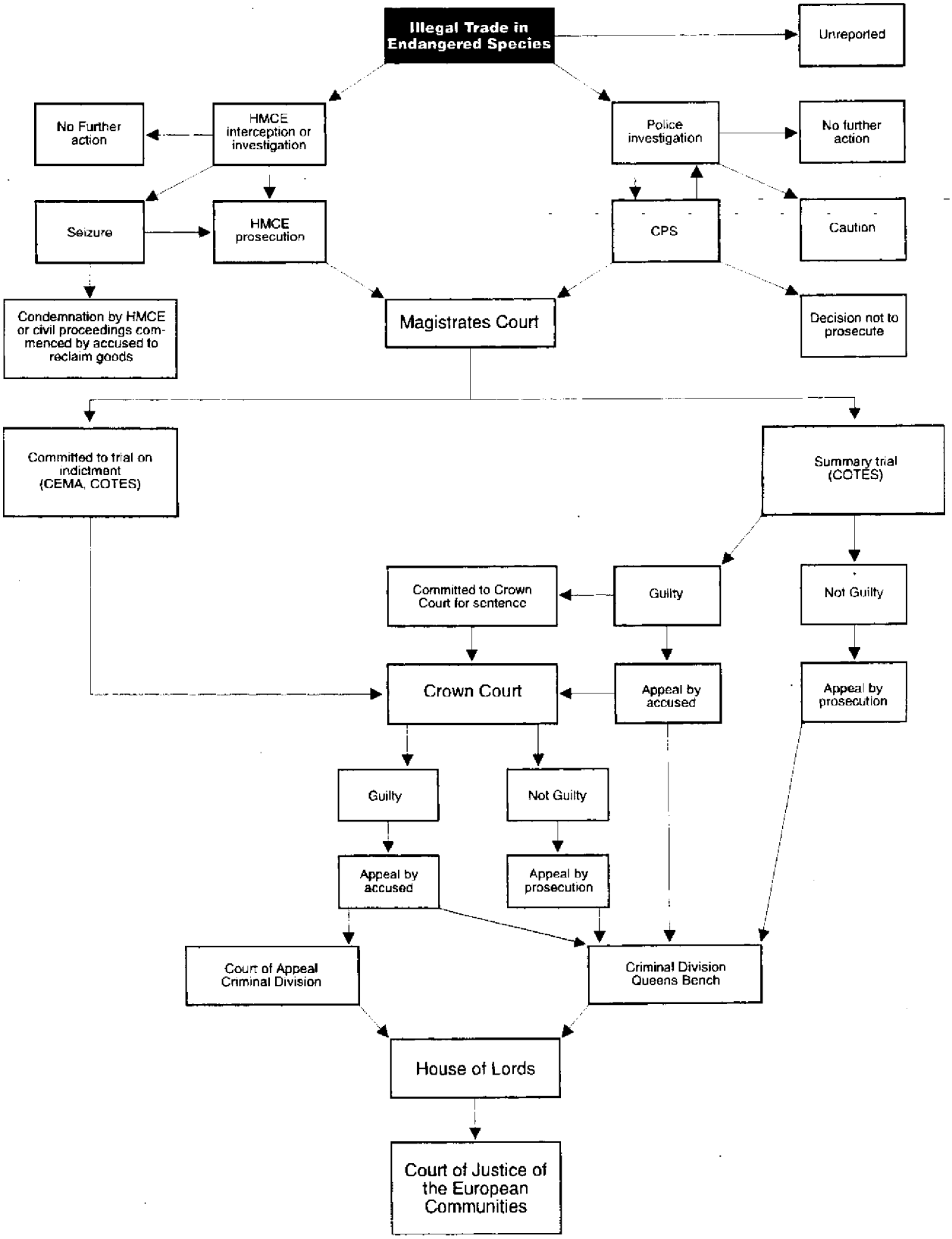
Environment and Heritage Service

Ken Ledgerwood
Chief Industrial Pollution Inspector
Environment and Heritage Service
Calvert House, Castle Place
Belfast BT1 1FY

Tel: 01232 254716
Fax: 01232 254700

ANNEX 3

The Process of CITES offences throught the criminal justice system of England & Wales



ANNEX 4

RANGE OF PENALTIES ARISING OUT OF SUCCESSFUL CUSTOMS PROSECUTIONS OF CITES OFFENCES

Successful prosecutions under CEMA, 1989–1996

Date and Court	Wildlife Involved	Offence	Penalty
6/1/89 Uxbridge Magistrates Court	2 Indian pythons	s68 Illegal export	£200
13/4/89 Croydon Crown Court	118 goldfinches	s170(2) Knowingly concerned with illegally imported wildlife	£100
6/8/89	1 jaguar skin	s167(1) False declaration	£200
16/6/89 Southampton Crown Court	various reptiles	s170 Knowingly concerned with illegally imported wildlife (8 counts)	£1,000 (£125 per count)
10/8/1990 Maidstone Crown Court	12 peregrine falcon eggs	s68 Illegal export	a) 30 months imprisonment b) 15 months imprisonment
10/8/1990 Maidstone Crown Court	4 Gyr falcon chicks	s170 Knowingly concerned with illegally imported wildlife	18 months imprisonment
4/9/90 Dover Magistrates Court	9 ruffs, 1 greenshank	s78 Failure to declare s170 Knowingly concerned with illegally imported wildlife	a) £250 b) £350
22/4/1991 Uxbridge Magistrates Court	2 boa constrictors 1 tortoise	s170 Knowingly concerned with illegally imported wildlife	£700
12-16/8/91	11 blue- checked amazons	a) s170 Knowingly concerned with illegally imported wildlife b) Forgery Act (MAFF licence)	a) £150 b) £100
30/9/91 Solihull Magistrates Court	18 parrot eggs	s170 Knowingly concerned with illegally imported wildlife	£1,200
21/11/91 Torbay Magistrates	9 marsh warbler eggs, 4 marsh harrier eggs	s170 Knowingly concerned with illegally imported wildlife	£1,800
9/4/92 Dover Magistrates Court	4 sugar gliders	s78 Failure to declare s170 Knowingly concerned with illegally imported wildlife	£30
18/2/92 Plymouth Magistrates Court	various reptiles and amphibians	s170 Knowingly concerned with illegally imported wildlife	2 months suspended
15/5/92 Solihull Magistrates Court	50 red-kneed tarantulas	s170 Knowingly concerned with illegally imported wildlife	£750
7/5 and 4/6/92 Cannock Magistrates Court	2 African grey parrots, 11 Australian cockatoos	1) s68(2) Knowingly concerned in illegal export 2) s170 Knowingly concerned with illegally imported wildlife	£200

Source: "By Hook or by Crook" (p.49)

ANNEX 5

ACRONYMS

CEMA	Customs and Excise Management Act 1979
CFCs	Chlorofluorocarbons
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
COTES	Control of Trade in Endangered Species (Enforcement) Regulations 1979
CPS	Crown Prosecution Service
DETR	Department of Environment, Transport and the Regions
EA	Environment Agency (for England and Wales)
EIA	Environmental Investigation Agency
EU	European Union (formerly EC - European Community)
ECU	Environmental Crime Unit
HMCE	Her Majesty's Customs & Excise
IECG	Interpol Environmental Crime Group (UK)
IMPEL	Implementation and Enforcement of Environmental Law (EU Network)
MEA	Multilateral Environmental Agreement
NCIS	National Criminal Intelligence Service
NGO	Non-governmental Organisation
ODS	Ozone Depleting Substance
PAW	Partnership for Action against Wildlife Crime
PWLO	Police Wildlife Liaison Officers
RSPB	Royal Society for the Protection of Birds
SEPA	Scottish Environment Protection Agency
TRAFFIC	Trade Records Analysis of Flora & Fauna in Commerce
WWF	Worldwide Fund for Nature (in UK) World Wildlife Fund (in USA)

Impel Plenary Meeting in Berlin 15-18 June 1999

ENVIRONMENTAL CRIME

1. INTRODUCTION

At the European level at the current time there are many different strands of activity in relation to environmental crime. Taking a simplistic approach these strands can be divided into two very different categories. The first is environmental crime as one aspect of organised crime and the second is the issue of practical enforcement in Member States. There are issues in both categories that affect Member States individually and arise between Member States.

There is a need to be clear as to the meaning or definition of environmental crime. Using it in a wide sense, it includes illegal trade in endangered species and their products as well as the more obvious unlawful pollution and disposal and storage of waste. It also includes illegal disposal and transfer of radioactive waste and possibly radioactive materials. A much narrower definition is sometimes used, such as for the draft definition of "serious environmental crime" in the recent Danish Initiative under the third pillar in the Council or the Europol Convention (see below) which exclude trade in endangered species. It is important that the definition of environmental crime in general use is agreed. The Commission generally regards environmental crime as including the following activities:

- illegal trade in endangered species and their products
- illegal disposal and transfer of radioactive waste and possibly radioactive materials
- unlawful pollution and disposal and storage of waste, including transfrontier shipment of hazardous waste
- unlawful trade in ozone depleting substances.

From the formal legal viewpoint, environmental crime because of it's nature, falls within the ambit of both the first pillar (the European Community) and the third pillar (Inter governmental co-operation) of the Treaty. In practice this means that the first pillar competence is dealt with by the traditional approach between Member States whereas the third pillar competence is purely inter-governmental. This has implications for the scope and type of involvement of the Commission in any work that is undertaken at the European level in this area. The most recent developments are taking place under the third pillar and are thus dominated by Groups at Council level. There is of course potential for considerable overlap in this area between the two pillars and in terms of competence, care needs to be taken from the legal viewpoint.

2. ENVIRONMENTAL CRIME AS AN ASPECT OF ORGANISED CRIME

Environmental crime should not be considered as a subject in isolation. It must be considered under the more general umbrella of crime, in particular organised crime. Environmental crime is of a specific nature but it cannot be separated from the criminal systems of the individual Member States or the co-operation measures that already exist or are being developed both within and among Member States. For instance there already exists Council of Europe Conventions on Extradition (1957) and Mutual Assistance in Criminal Matters (1959). At the EU level (third pillar of EUT) there is a proposed convention to provide for enhanced mutual criminal assistance in criminal matters between Member States that is currently being finalised by the Council.

Initiatives at Council, Commission, IMPEL and international level

Various initiatives on organised crime (including environmental crime) are being undertaken at different levels. These can be summarised as follows:

a) Council Level

A Multi-Disciplinary Working Group on Organised Crime was set up for the purpose of developing policy orientations to co-ordinate the fight against organised crime. It operates under the third pillar of the Treaty (i.e. inter-governmental co-operation). Its original remit and working plan (the Action Plan to Combat Organised Crime) was adopted in 1997, following the Dublin Summit of December 1996, and concentrated on the more immediate areas of organised crime such as money-laundering, drugs and high tech crime and deals with co-operation between judges, police, customs officials etc. Environmental crime as such was

not specifically dealt with. However, there has been a growing recognition of the importance of environmental crime and there is now a political commitment, since the Cardiff Summit of last year to include environmental crime under this umbrella, in recognition that the same principles of co-operation etc apply equally to environmental crime as they do to other forms of organised crime.

The working group meets twice a month. A recent Danish initiative for a draft joint action on Environmental Crime was presented to this group, and has been sent to a sub-group for consideration. The Danish Initiative defines "serious environmental crime" and requires Member States to ensure that serious environmental crime is punishable under criminal law in a way that is effective, commensurate with the offence, acts as a deterrent and which may entail extradition. It proposes a number of technical measures (confiscation of equipment and profit, disqualification from certain activities, compensation and environmental rehabilitation rules, co-operation and mutual assistance, exchange of information, training and technical assistance) to fight against serious environmental crime.

The last meeting of this working sub-group in May expressed some reservations about the usefulness or added value of this initiative given the overlap with the 1998 Council of Europe Convention on the Protection of the Environment through Criminal Law. (This Convention encourages the pursuit of a common criminal policy aimed at the protection of the environment. It includes a requirement to establish as criminal offences under domestic law a number of offences against the environment. 7 Member States have signed it.)

Following the coming into force of the Amsterdam Treaty, the Danes are working on the necessary amendments for the proposal to be put in the form of a framework decision for the approximation of the laws and regulations of the Member States under article 34 (2) (a) (ex Article K.6) of the European Union Treaty.

The intention behind the Danish initiative appears to be to define "serious environmental crime" and to put pressure on Member States for a rapid ratification of the Council of Europe Convention. As a next step the working sub-group decided to address a questionnaire to Member States asking them to indicate when they would be in a position to ratify the Convention and what reservations they would be making. The group would then be in a better position to assess whether or not the Danish initiative added any value to the existing Council of Europe Convention. It will meet again in July.

b) Commission level

The Commission considers there are four main areas of environmental crime as an aspect of organised crime. These are

- illegal trade in endangered species of wild flora and fauna and their products,
- illegal production of and trade in ozone depleting substances,
- dumping and illegal transport of hazardous wastes and dumping and
- illegal transport of radioactive substances.

These are generally the subject matter of international conventions (apart from radioactive waste) which have been implemented into community law, usually by regulation, for which DG XI is responsible. Annexed is a table showing the relevant international and Community instruments. Various groups meet to discuss the implementation of these acts (see below).

Additionally, a Commission interservice group has been set up to monitor the work of the Multidisciplinary group in the Council (see (a) above). This meets twice a year under the auspices of the Secretariat General's Task Force (Justice and Home Affairs).

c) IMPEL level

IMPEL produced a preliminary report on environmental criminal law in 1997 (a Dutch project) and this has been followed up by a Danish project on Criminal Enforcement of Environmental Law (the "Metro report") in 1998. This report is being checked by Member States and should soon be ready for final approval by the Plenary. In addition, IMPEL has an ongoing project on Transfrontier Shipment of Waste with a Working Group looking at the enforcement of Regulation 259/93 on Transfrontier Shipment of Waste.

d) International level

International Conventions

Much work is going on at international level on organised and environmental crime. The Council of Europe Convention on the Protection of the Environment through Criminal Law has already been mentioned. The Community was not involved in the negotiation of the Convention nor did it sign the Convention. Following the Danish initiative under the third pillar, it would seem Member States might speed up their ratification process, which is to be welcomed.

Also, the UN is in the process of preparing a draft convention on the fight against organised crime. The G8 countries also address the topic regularly.

Europol

There are discussions to extend the initial remit of Europol (set out in Article 2 to the Convention on the establishment of a European Police Office) to cover environmental crime and the illicit trafficking in endangered animal and plant species (they are listed in Annex II as separate forms of international crime). This has not yet been achieved and there may be some political unwillingness to do so in the short term. The establishment of Europol has experienced considerable difficulties particularly in the area of personal data. There are also resource implications. The original remit of Europol does cover trafficking in nuclear and radioactive substances (as defined in Directive 80/836 Euratom, includes waste).

Some of the information exchange and register provisions contained in the Danish initiative would, if agreed, be handed over to Europol once their remit had been extended.

3. IMPROVING PRACTICAL ENFORCEMENT IN MEMBER STATES

a) Council level

The Council of Europe Convention and the Danish Initiative under the third pillar of TEU could assist the Commission in this area since they are both directed at encouraging parties/Member States to pursue a common criminal policy aimed at the protection of the environment. This includes a requirement to establish as criminal offences under domestic law a number of offences against the environment when committed intentionally or negligently. It also deals with sanctions for environmental offences that should "take into account the serious nature of the offences" and shall include imprisonment and pecuniary sanctions and may include reinstatement of the environment.

b) Commission level

In those 4 areas where organised crime exists between Member States (CITES, ozone depleting substances and transfrontier shipments of waste and radioactive waste and materials) the Commission has generally taken the attitude that it is in the first instance up to the Member States to ensure that EC law is applied. That is not to say that there is no room for co-ordination at Commission level and action at Commission level to date includes the following:

- In the area of ozone depleting substances (ODS), there is an informal multi-disciplinary *ad hoc* group (Commission and MS' environment and customs authorities, industry, UCLAF and an NGO (EIA)) which meets from time to time to exchange information and to develop practical measures to prevent/combat illegal trade in ODS

- In the area of trans-frontier shipment of waste, the relevant legislation provides for a meeting of the so-called "correspondents" which meet twice a year at the invitation of the Commission to examine "questions raised by the implementation of the Regulation.

- The CITES regulation 338/97 establishes an enforcement group (Commission and Member States' police, customs and inspectorates). They meet to discuss casework and exchange information.

c) IMPEL level

IMPEL is well placed to share information in relevant areas such as through the working group on transfrontier shipments of waste. There is potentially scope for further co-operation through IMPEL in relevant areas provided it does not duplicate work carried out by other groups at the European level. IMPEL provides an opportunity to involve the people working on the ground. However, one difficulty is that the environmental regulators are only a small part of the criminal system in Member States and the people who investigate, prosecute or have relevant experience/information will in most member states be the police, customs officials or state prosecutors. To date IMPEL has carried out the following work:

- The commissioning of a report on criminal enforcement in the MSS (the "Metro" report -this report is not yet finalised). It highlights the scale of the differences between the criminal systems of Member States. For instance only the UK, Denmark, Finland and Holland are familiar with the concept of corporate liability. The ability to prosecute a company as a legal person capable of committing a legal offence would appear important to the effectiveness of any enforcement in many cases where an environmental offence occurs. By their nature many environmental offences are corporate offences. This forms a major provision in the Council of Europe Convention and the Danish Initiative. Also interesting is the extensive use in some Member States of administrative sanctions and the relationship with criminal sanctions. The disappointing aspect of the study is the lack of information supplied by participants on

transboundary incidents/offences. It is clear there are considerable practical problems involved in investigating transboundary crime but it is difficult to get any feeling for the scale of the difficulties. This sort of information gathering exercise would be an extremely useful function for IMPEL to perform.

- Started work on developing networks in the MSS to help bring about greater cooperation between the environmental enforcement agencies, the police, customs etc.

d) Sanctions

More generally, sanctions are an important element of the fight against environmental crime. Under the Treaty, it is left to the Member States discretion to decide upon the appropriate sanctions. This is in line with the principle of subsidiarity.

The Communication from the Commission on Implementing Community Environmental Law (Com (96) 500) encouraged the inclusion in Commission proposals for environmental measures "a provision requiring national implementing measures to include appropriate deterrent sanctions for non-compliance with the requirements of the relevant directive." This is to ensure transparency at the national level as far as sanctions are concerned and to ensure that the sanctions are notified to the Commission so that the national systems can be evaluated.

Some Council Regulations already contained a general requirement for the imposition of sanctions at the national level such as the Regulation No 338/97 on the protection of species of wild fauna and flora by regulating trade therein. Article 16 deals with sanctions and sets out the 13 infringements for which Member States must provide at a minimum, for the imposition of sanctions. Article 16(2) states that "the measures should be appropriate to the nature and gravity of the infringement and shall include provisions related to the seizure, and where appropriate, confiscation of specimens." This approach to sanctioning will be further encouraged as far as possible in the drafting of Community instruments.

4. CONCLUSIONS

It is apparent from the foregoing that much work is being done at various levels and in various fora to combat environmental crime. It must be ensured that there is no duplication or overlap. Good communication is required both inter-institutionally, within the Commission and with Member States to share information and avoid duplication.

Environmental crime is a growing business – recent published estimates of illegal trade worldwide of CITES species puts its value at about US$3 billion. The EU is the market for about 33% of world wildlife trade. If it is to be effectively combatted the various initiatives at Council, Commission, IMPEL and international level should continue. The general principles being agreed in the various fora should be built upon and we should try to ensure that, so far as the EU is concerned, a better co-ordinated approach is developed by the enforcers in the Member States.

This is where IMPEL could play an important role. The commissioning of the "Metro" report on criminal enforcement in the MSS under the IMPEL umbrella was an important step. This report should be finalised. If possible, more information should be gathered on the scale of the difficulties involved in investigating trans-boundary environmental crime.

IMPEL should continue its work on developing networks in the MSS which will bring about greater co-operation between the environmental enforcement agencies, the police, customs etc. For instance in the case of CFCs and halons it may be difficult for customs officers to identify the substances indicated on the licences. Local environment agencies could or should be contacted by customs officers in cases of doubt (the Commission's *ad hoc* ODS group is looking at how there might be better communication between agencies). There should be a link between any IMPEL groups, such as the TFS group, and the corresponding groups in the Commission to ensure no overlap and a maximising of resources and experience.

The outcome of discussions in the Council on the Danish Initiative and the progress of ratification of the Council of Europe Convention and the extent of the reservations are awaited with interest. Currently it appears 7 Member States have signed the Convention, none have ratified. The Convention only requires 3 ratifications to come into force. As a complement to this, the inclusion in future directives of clearer provisions relating to criminal sanctions/offences and enforcement groups should be encouraged to bring about a greater consistency of approach to offences against the environment in Member States.

ANNEX

INTERNATIONAL CONVENTIONS	COMMUNITY INSTRUMENTS	COMMENT
1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora. Requires all trade in specimens of certain species to be controlled by export and import certificates. Parties are to take appropriate measures to enforce the provisions of the convention including appropriate measures to penalise trade in or possession of specimens. The Convention provides for a Secretariat and a Conference of the Parties (convened every 2.5 years) which establish a number of permanent committees which play a significant role in the functioning of the Convention.	The Community is not yet a party to CITES in it's own right. Council Regulation 338/97 on the protection of species of wild fauna and flora by regulating trade therein and Regulation 939/97 containing detailed implementation provisions. Sets up a system to control imports and exports of endangered species into/ from the Community. Prohibition on displaying to the public for commercial purposes and the sale, keeping for sale, offering for sale or transporting for sale the listed species. Requires monitoring, investigations, oblige MSs to have adequate legislation on sanctions; establishes enforcement group. Regulations go beyond the basic CITES provisions particularly in the area of enforcement.	Reference in treaty to enforcement at article 8. Parties shall take measures to penalise trade in, or possession of species. Sanctions to include confiscation. Under Regulation 338/97 article 14 deals with monitoring of compliance and investigation of infringements. This includes the setting up of the enforcement group consisting of representatives of all MSs authorities responsible for implementing Regulation. Article 16 sets out 13 infringements of the Regulation which is the minimum for which sanctions must be provided. The actual sanctions and penalties for failure to comply are left to MSs but must be "appropriate to the nature and gravity of the infringement and shall include provisions relating to the seizure, and where appropriate, confiscation of species". The Convention contains reporting requirements to the Secretariat on trade in species and legal and administrative measures taken to implement Convention. Article 15 contains provisions on communication of information between MSs, Commission and the Convention Secretariat. Every 2 years Commission to publish report on implementation and enforcement of Regulation (first 1999).
1987 Montreal Protocol on Substances that deplete the Ozone Layer. Convention that seeks to protect the ozone layer by taking precautionary measures to control emissions and eliminate depleting substances. This involves the parties establishing a phasing out of ODS's and a licensing system to control the import and export.	Council Regulation 3093/94 on substances that deplete the ozone layer. Control on the production, importation, exportation, supply, use and recovery of ODS's. It also establishes a licensing system for all imports.	Article 18 of 309/94 requires competent authorities to carry out investigations which the Commission considers necessary under the Regulation. Article 19 of 3093/94 specifically states that MSs shall determine the penalties to be imposed in the event of any failure to comply with the Regulation or with any national measures taken to implement it. Reporting requirements in both Convention and Regulation. Primarily technical data. The Commission convenes an 'ad hoc group' on illegal trade in ozone depleting substances to share information.

INTERNATIONAL CONVENTIONS	COMMUNITY INSTRUMENTS	COMMENT
1989 Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal. Convention aims in introducing a system for controlling the export, import and disposal of hazardous waste to reduce the volume of such exchanges so as to protect human health and the environment. The Convention states at article 4(3) that the parties consider that illegal traffic in hazardous wastes or other wastes is criminal. Each party is to take appropriate legal, administrative and other measures to enforce the Convention. This includes measures to prevent and punish conduct in contravention of the Convention. At article 9 illegal traffic is defined and each party must introduce appropriate legislation to prevent and punish illegal traffic.	Council Decision 93/98/EEC on the conclusion, on behalf of the Community the Basel Convention and Council Regulation 259/93 on the supervision and control of shipments of waste within, into and out of the European Community. A system of prior authorisation for shipments of waste is established. It includes shipments both within and into or out of the Community. Article 26.5 requires MS's to take appropriate legal action to prohibit and punish illegal traffic. Article 37 requires MSs to designate one 'correspondent' and there are provisions for meetings of correspondents to be held "to examine questions raised by the implementation of the directive". In practice meets twice yearly. Council Directive 92/3/Euratom on the supervision and control of shipments of radioactive waste between member states and into and out of the Community. Applies to shipments of radioactive waste between MS's and entering or leaving the Community. Provides for a common mandatory system of prior notification and a uniform control document. Council Regulation 1493/93 on shipments of radioactive substances between member states. Establishes a system of prior notification for shipments of radioactive substances within the Community for radiation protection purposes.	Example of a general requirement within the Regulation for the imposition of sanctions. However it is left to MS's to decide what is appropriate in the context of their national systems. Formal group meets under article 37 to discuss implementation issues. The Convention and the Regulation has provisions for information to be shared internationally "to achieve the prevention" of illegal trafficing. Also annual reports required to the Convention Secretariat. Primarily concentrating on legal transfers. Commission to report every 3 years on the implementation of the Regulation. MSs under article 33 of the Euratom Treaty shall lay down appropriate provisions to ensure compliance. No specific reference to sanctions is made in the Directive or Regulation. Commission requires reports every 2 years on the implementation of Directive 92/3/Euratom.

TEXTS OF THE THREE MEAs AND OTHER RELEVANT ENVIRONMENTAL INSTRUMENTS

Convention on International Trade in Endangered Species in Wild Fauna and Flora

TEXT OF THE CONVENTION

(As amended in 1979, and provisionally in 1983)

The Contracting States,

Recognizing that wild fauna and flora in their many beautiful and varied forms are an irreplaceable part of the natural systems of the earth which must be protected for this and the generations to come;

Conscious of the ever-growing value of wild fauna and flora from aesthetic, scientific, cultural, recreational and economic points of view;

Recognizing that peoples and States are and should be the best protectors of their own wild fauna and flora;

Recognizing, in addition, that international co-operation is essential for the protection of certain species of wild fauna and flora against over-exploitation through international trade;

Convinced of the urgency of taking appropriate measures to this end;

Have agreed as follows:

ARTICLE I: DEFINITIONS

For the purpose of the present Convention, unless the context otherwise requires:

(a) "Species" means any species, subspecies, or geographically separate population thereof;
(b) "Specimen" means:
  (i) any animal or plant, whether alive or dead;
  (ii) in the case of an animal: for species included in Appendices I and II, any readily recognizable part or derivative thereof; and for species included in Appendix III, any readily recognizable part or derivative thereof specified in Appendix III in relation to the species; and
  (iii) in the case of a plant: for species included in Appendix I, any readily recognizable part or derivative thereof; and for species included in Appendices II and III, any readily recognizable part or derivative thereof specified in Appendices II and III in relation to the species;
(c) "Trade" means export, re-export, import and introduction from the sea;
(d) "Re-export" means export of any specimen that has previously been imported;
(e) "Introduction from the sea" means transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State;
(f) "Scientific Authority" means a national scientific authority designated in accordance with Article IX;
(g) "Management Authority" means a national management authority designated in accordance with Article IX;
(h) "Party" means a State for which the present Convention has entered into force.

ARTICLE II: FUNDAMENTAL PRINCIPLES

1. Appendix I shall include all species threatened with extinction which are or may be affected by trade. Trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances.

2. Appendix II shall include:

  (a) all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival; and
  (b) other species which must be subject to regulation in order that trade in specimens of certain species referred to in sub-paragraph (a) of this paragraph may be brought under effective control.

3. Appendix III shall include all species which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the co-operation of other Parties in the control of trade.
4. The Parties shall not allow trade in specimens of species included in Appendices I, II and III ex

cept in accordance with the provisions of the present Convention.

ARTICLE III: REGULATION OF TRADE IN SPECIMENS OF SPECIES INCLUDED IN APPENDIX I

1. All trade in specimens of species included in Appendix I shall be in accordance with the provisions of this Article.

2. The export of any specimen of a species included in Appendix I shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

   (a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;
   (b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora;
   (c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and
   (d) a Management Authority of the State of export is satisfied that an import permit has been granted for the specimen.

3. The import of any specimen of a species included in Appendix I shall require the prior grant and presentation of an import permit and either an export permit or a re-export certificate. An import permit shall only be granted when the following conditions have been met:

   (a) a Scientific Authority of the State of import has advised that the import will be for purposes which are not detrimental to the survival of the species involved;
   (b) a Scientific Authority of the State of import is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and
   (c) a Management Authority of the State of import is satisfied that the specimen is not to be used for primarily commercial purposes.

4. The re-export of any specimen of a species included in Appendix I shall require the prior grant and presentation of a re-export certificate. A re-export certificate shall only be granted when the following conditions have been met:

   (a) a Management Authority of the State of re-export is satisfied that the specimen was imported into that State in accordance with the provisions of the present Convention;
   (b) a Management Authority of the State of re-export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment; and
   (c) a Management Authority of the State of re-export is satisfied that an import permit has been granted for any living specimen.

5. The introduction from the sea of any specimen of a species included in Appendix I shall require the prior grant of a certificate from a Management Authority of the State of introduction. A certificate shall only be granted when the following conditions have been met:

   (a) a Scientific Authority of the State of introduction advises that the introduction will not be detrimental to the survival of the species involved;
   (b) a Management Authority of the State of introduction is satisfied that the proposed recipient of a living specimen is suitably equipped to house and care for it; and
   (c) a Management Authority of the State of introduction is satisfied that the specimen is not to be used for primarily commercial purposes.

ARTICLE IV: REGULATION OF TRADE IN SPECIMENS OF SPECIES INCLUDED IN APPENDIX II

1. All trade in specimens of species included in Appendix II shall be in accordance with the provisions of this Article.
2. The export of any specimen of a species included in Appendix II shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:

   (a) a Scientific Authority of the State of export has advised that such export will not be detrimental to the survival of that species;
   (b) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora; and
   (c) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize

the risk of injury, damage to health or cruel treatment.

3. A Scientific Authority in each Party shall monitor both the export permits granted by that State for specimens of species included in Appendix II and the actual exports of such specimens. Whenever a Scientific Authority determines that the export of specimens of any such species should be limited in order to maintain that species throughout its range at a level consistent with its role in the ecosystems in which it occurs and well above the level at which that species might become eligible for inclusion in Appendix I, the Scientific Authority shall advise the appropriate Management Authority of suitable measures to be taken to limit the grant of export permits for specimens of that species.

4. The import of any specimen of a species included in Appendix II shall require the prior presentation of either an export permit or a re-export certificate.

5. The re-export of any specimen of a species included in Appendix II shall require the prior grant and presentation of a re-export certificate. A re-export certificate shall only be granted when the following conditions have been met:

   (a) a Management Authority of the State of re-export is satisfied that the specimen was imported into that State in accordance with the provisions of the present Convention; and
   (b) a Management Authority of the State of re-export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

6. The introduction from the sea of any specimen of a species included in Appendix II shall require the prior grant of a certificate from a Management Authority of the State of introduction. A certificate shall only be granted when the following conditions have been met:

   (a) a Scientific Authority of the State of introduction advises that the introduction will not be detrimental to the survival of the species involved; and
   (b) a Management Authority of the State of introduction is satisfied that any living specimen will be so handled as to minimize the risk of injury, damage to health or cruel treatment.

7. Certificates referred to in paragraph 6 of this Article may be granted on the advice of a Scientific Authority, in consultation with other national scientific authorities or, when appropriate, international scientific authorities, in respect of periods not exceeding one year for total numbers of specimens to be introduced in such periods.

ARTICLE V: REGULATION OF TRADE IN SPECIMENS OF SPECIES INCLUDED IN APPENDIX III

1. All trade in specimens of species included in Appendix III shall be in accordance with the provisions of this Article.

2. The export of any specimen of a species included in Appendix III from any State which has included that species in Appendix III shall require the prior grant and presentation of an export permit. An export permit shall only be granted when the following conditions have been met:
   (a) a Management Authority of the State of export is satisfied that the specimen was not obtained in contravention of the laws of that State for the protection of fauna and flora; and
   (b) a Management Authority of the State of export is satisfied that any living specimen will be so prepared and shipped as to minimize the risk of injury, damage to health or cruel treatment.

3. The import of any specimen of a species included in Appendix III shall require, except in circumstances to which paragraph 4 of this Article applies, the prior presentation of a certificate of origin and, where the import is from a State which has included that species in Appendix III, an export permit.

4. In the case of re-export, a certificate granted by the Management Authority of the State of re-export that the specimen was processed in that State or is being re-exported shall be accepted by the State of import as evidence that the provisions of the present Convention have been complied with in respect of the specimen concerned.

ARTICLE VI: PERMITS AND CERTIFICATES

1. Permits and certificates granted under the provisions of Articles III, IV, and V shall be in accordance with the provisions of this Article.

2. An export permit shall contain the information specified in the model set forth in Appendix IV,

and may only be used for export within a period of six months from the date on which it was granted.

3. Each permit or certificate shall contain the title of the present Convention, the name and any identifying stamp of the Management Authority granting it and a control number assigned by the Management Authority.

4. Any copies of a permit or certificate issued by a Management Authority shall be clearly marked as copies only and no such copy may be used in place of the original, except to the extent endorsed thereon.

5. A separate permit or certificate shall be required for each consignment of specimens.

6. A Management Authority of the State of import of any specimen shall cancel and retain the export permit or re-export certificate and any corresponding import permit presented in respect of the import of that specimen.

7. Where appropriate and feasible a Management Authority may affix a mark upon any specimen to assist in identifying the specimen. For these purposes "mark" means any indelible imprint, lead seal or other suitable means of identifying a specimen, designed in such a way as to render its imitation by unauthorized persons as difficult as possible.

ARTICLE VII: EXEMPTIONS AND OTHER SPECIAL PROVISIONS RELATING TO TRADE

1. The provisions of Articles III, IV and V shall not apply to the transit or transshipment of specimens through or in the territory of a Party while the specimens remain in Customs control.

2. Where a Management Authority of the State of export or re-export is satisfied that a specimen was acquired before the provisions of the present Convention applied to that specimen, the provisions of Articles III, IV and V shall not apply to that specimen where the Management Authority issues a certificate to that effect.

3. The provisions of Articles III, IV and V shall not apply to specimens that are personal or household effects. This exemption shall not apply where:
   (a) in the case of specimens of a species included in Appendix I, they were acquired by the owner outside his State of usual residence, and are being imported into that State; or
   (b) in the case of specimens of species included in Appendix II:
   (i) they were acquired by the owner outside his State of usual residence and in a State where removal from the wild occurred;
   (ii) they are being imported into the owner's State of usual residence; and
   (iii) the State where removal from the wild occurred requires the prior grant of export permits before any export of such specimens;
   unless a Management Authority is satisfied that the specimens were acquired before the provisions of the present Convention applied to such specimens.

4. Specimens of an animal species included in Appendix I bred in captivity for commercial purposes, or of a plant species included in Appendix I artificially propagated for commercial purposes, shall be deemed to be specimens of species included in Appendix II.

5. Where a Management Authority of the State of export is satisfied that any specimen of an animal species was bred in captivity or any specimen of a plant species was artificially propagated, or is a part of such an animal or plant or was derived therefrom, a certificate by that Management Authority to that effect shall be accepted in lieu of any of the permits or certificates required under the provisions of Article III, IV or V.

6. The provisions of Articles III, IV and V shall not apply to the non-commercial loan, donation or exchange between scientists or scientific institutions registered by a Management Authority of their State, of herbarium specimens, other preserved, dried or embedded museum specimens, and live plant material which carry a label issued or approved by a Management Authority.

7. A Management Authority of any State may waive the requirements of Articles III, IV and V and allow the movement without permits or certificates of specimens which form part of a travelling zoo, circus, menagerie, plant exhibition or other travelling exhibition provided that:
   (a) the exporter or importer registers full details of such specimens with that Management Authority;
   (b) the specimens are in either of the categories specified in paragraph 2 or 5 of this Article; and
   (c) the Management Authority is satisfied that any living specimen will be so transported and cared for as to minimize the risk of injury, damage to health or cruel treatment.

ARTICLE VIII: MEASURES TO BE TAKEN BY THE PARTIES

1. The Parties shall take appropriate measures to enforce the provisions of the present Convention and to prohibit trade in specimens in violation thereof. These shall include measures:

   (a) to penalize trade in, or possession of, such specimens, or both; and
   (b) to provide for the confiscation or return to the State of export of such specimens.

2. In addition to the measures taken under paragraph 1 of this Article, a Party may, when it deems it necessary, provide for any method of internal reimbursement for expenses incurred as a result of the confiscation of a specimen traded in violation of the measures taken in the application of the provisions of the present Convention.

3. As far as possible, the Parties shall ensure that specimens shall pass through any formalities required for trade with a minimum of delay. To facilitate such passage, a Party may designate ports of exit and ports of entry at which specimens must be presented for clearance. The Parties shall ensure further that all living specimens, during any period of transit, holding or shipment, are properly cared for so as to minimize the risk of injury, damage to health or cruel treatment.
4. Where a living specimen is confiscated as a result of measures referred to in paragraph 1 of this Article:
   (a) the specimen shall be entrusted to a Management Authority of the State of confiscation;
   (b) the Management Authority shall, after consultation with the State of export, return the specimen to that State at the expense of that State, or to a rescue centre or such other place as the Management Authority deems appropriate and consistent with the purposes of the present Convention; and
   (c) the Management Authority may obtain the advice of a Scientific Authority, or may, whenever it considers it desirable, consult the Secretariat in order to facilitate the decision under sub-paragraph (b) of this paragraph, including the choice of a rescue centre or other place.

5. A rescue centre as referred to in paragraph 4 of this Article means an institution designated by a Management Authority to look after the welfare of living specimens, particularly those that have been confiscated.

6. Each Party shall maintain records of trade in specimens of species included in Appendices I, II and III which shall cover:
   (a) the names and addresses of exporters and importers; and
   (b) the number and type of permits and certificates granted; the States with which such trade occurred; the numbers or quantities and types of specimens, names of species as included in Appendices I, II and III and, where applicable, the size and sex of the specimens in question.

7. Each Party shall prepare periodic reports on its implementation of the present Convention and shall transmit to the Secretariat:
   (a) an annual report containing a summary of the information specified in sub-paragraph (b) of paragraph 6 of this Article; and
   (b) a biennial report on legislative, regulatory and administrative measures taken to enforce the provisions of the present Convention.

8. The information referred to in paragraph 7 of this Article shall be available to the public where this is not inconsistent with the law of the Party concerned.

ARTICLE IX: MANAGEMENT AND SCIENTIFIC AUTHORITIES

1. Each Party shall designate for the purposes of the present Convention:
   (a) one or more Management Authorities competent to grant permits or certificates on behalf of that Party; and
   (b) one or more Scientific Authorities.

2. A State depositing an instrument of ratification, acceptance, approval or accession shall at that time inform the Depositary Government of the name and address of the Management Authority authorized to communicate with other Parties and with the Secretariat.

3. Any changes in the designations or authorizations under the provisions of this Article shall be communicated by the Party concerned to the Secretariat for transmission to all other Parties.

4. Any Management Authority referred to in paragraph 2 of this Article shall, if so requested by the Secretariat or the Management Authority of another Party, communicate to it impression of stamps, seals or other devices used to authenticate permits or certificates.

ARTICLE X: TRADE WITH STATES NOT PARTY TO THE CONVENTION

Where export or re-export is to, or import is from, a State not a Party to the present Convention, comparable documentation issued by the competent authorities in that State which substantially conforms with the requirements of the present Convention for permits and certificates may be accepted in lieu thereof by any Party.

ARTICLE XI: CONFERENCE OF THE PARTIES

1. The Secretariat shall call a meeting of the Conference of the Parties not later than two years after the entry into force of the present Convention.

2. Thereafter the Secretariat shall convene regular meetings at least once every two years, unless the Conference decides otherwise, and extraordinary meetings at any time on the written request of at least one-third of the Parties.

3. At meetings, whether regular or extraordinary, the Parties shall review the implementation of the present Convention and may:
   (a) make such provision as may be necessary to enable the Secretariat to carry out its duties, and adopt financial provisions;
   (b) consider and adopt amendments to Appendices I and II in accordance with Article XV;
   (c) review the progress made towards the restoration and conservation of the species included in Appendices I, II and III;
   (d) receive and consider any reports presented by the Secretariat or by any Party; and
   (e) where appropriate, make recommendations for improving the effectiveness of the present Convention.

4. At each regular meeting, the Parties may determine the time and venue of the next regular meeting to be held in accordance with the provisions of paragraph 2 of this Article.

5. At any meeting, the Parties may determine and adopt rules of procedure for the meeting.

6. The United Nations, its Specialized Agencies and the International Atomic Energy Agency, as well as any State not a Party to the present Convention, may be represented at meetings of the Conference by observers, who shall have the right to participate but not to vote.

7. Any body or agency technically qualified in protection, conservation or management of wild fauna and flora, in the following categories, which has informed the Secretariat of its desire to be represented at meetings of the Conference by observers, shall be admitted unless at least one-third of the Parties present object:
   (a) international agencies or bodies, either governmental or non-governmental, and national governmental agencies and bodies; and
   (b) national non-governmental agencies or bodies which have been approved for this purpose by the State in which they are located. Once admitted, these observers shall have the right to participate but not to vote.

ARTICLE XII: THE SECRETARIAT

1. Upon entry into force of the present Convention, a Secretariat shall be provided by the Executive Director of the United Nations Environment Programme. To the extent and in the manner he considers appropriate, he may be assisted by suitable inter-governmental or non-governmental international or national agencies and bodies technically qualified in protection, conservation and management of wild fauna and flora.

2. The functions of the Secretariat shall be:
   (a) to arrange for and service meetings of the Parties;
   (b) to perform the functions entrusted to it under the provisions of Articles XV and XVI of the present Convention;
   (c) to undertake scientific and technical studies in accordance with programmes authorized by the Conference of the Parties as will contribute to the implementation of the present Convention, including studies concerning standards for appropriate preparation and shipment of living specimens and the means of identifying specimens;
   (d) to study the reports of Parties and to request from Parties such further information with respect thereto as it deems necessary to ensure implementation of the present Convention;
   (e) to invite the attention of the Parties to any matter pertaining to the aims of the present Convention;
   (f) to publish periodically and distribute to the Parties current editions of Appendices I, II and III together with any information which will facilitate identification of specimens of species included in those Appendices;
   (g) to prepare annual reports to the Parties on its work and on the implementation of the present Convention and such other reports as meetings of the Parties may request;

(h) to make recommendations for the implementation of the aims and provisions of the present Convention, including the exchange of information of a scientific or technical nature;
(i) to perform any other function as may be entrusted to it by the Parties.

ARTICLE XIII: INTERNATIONAL MEASURES

1. When the Secretariat in the light of information received is satisfied that any species included in Appendix I or II is being affected adversely by trade in specimens of that species or that the provisions of the present Convention are not being effectively implemented, it shall communicate such information to the authorized Management Authority of the Party or Parties concerned.
2. When any Party receives a communication as indicated in paragraph 1 of this Article, it shall, as soon as possible, inform the Secretariat of any relevant facts insofar as its laws permit and, where appropriate, propose remedial action. Where the Party considers that an inquiry is desirable, such inquiry may be carried out by one or more persons expressly authorized by the Party.
3. The information provided by the Party or resulting from any inquiry as specified in paragraph 2 of this Article shall be reviewed by the next Conference of the Parties which may make whatever recommendations it deems appropriate.

ARTICLE XIV: EFFECT ON DOMESTIC LEGISLATION AND INTERNATION CONVENTIONS

1. The provisions of the present Convention shall in no way affect the right of Parties to adopt:
   (a) stricter domestic measures regarding the conditions for trade, taking, possession or transport of specimens of species included in Appendices I, II and III, or the complete prohibition thereof; or
   (b) domestic measures restricting or prohibiting trade, taking, possession or transport of species not included in Appendix I, II or III.
2. The provisions of the present Convention shall in no way affect the provisions of any domestic measures or the obligations of Parties deriving from any treaty, convention, or international agreement relating to other aspects of trade, taking, possession or transport of specimens which is in force or subsequently may enter into force for any Party including any measure pertaining to the Customs, public health, veterinary or plant quarantine fields.
3. The provisions of the present Convention shall in no way affect the provisions of, or the obligations deriving from, any treaty, convention or international agreement concluded or which may be concluded between States creating a union or regional trade agreement establishing or maintaining a common external Customs control and removing Customs control between the parties thereto insofar as they relate to trade among the States members of that union or agreement.
4. A State party to the present Convention, which is also a party to any other treaty, convention or international agreement which is in force at the time of the coming into force of the present Convention and under the provisions of which protection is afforded to marine species included in Appendix II, shall be relieved of the obligations imposed on it under the provisions of the present Convention with respect to trade in specimens of species included in Appendix II that are taken by ships registered in that State and in accordance with the provisions of such other treaty, convention or international agreement.
5. Notwithstanding the provisions of Articles III, IV and V, any export of a specimen taken in accordance with paragraph 4 of this Article shall only require a certificate from a Management Authority of the State of introduction to the effect that the specimen was taken in accordance with the provisions of the other treaty, convention or international agreement in question.
6. Nothing in the present Convention shall prejudice the codification and development of the law of the sea by the United Nations Conference on the Law of the Sea convened pursuant to Resolution 2750 C (XXV) of the General Assembly of the United Nations nor the present or future claims and legal views of any State concerning the law of the sea and the nature and extent of coastal and flag State jurisdiction.

ARTICLE XV: AMENDMENTS TO APPENDICES I AND II

1. The following provisions shall apply in relation to amendments to Appendices I and II at meetings of the Conference of the Parties:
   (a) Any Party may propose an amendment to Appendix I or II for consideration at the next meeting. The text of the proposed amendment shall be communicated to the Secretariat at least 150 days before the meeting. The Secretariat shall consult the other Parties and interested bodies on the amendment in accordance with the provisions of sub-para-

graphs (b) and (c) of paragraph 2 of this Article and shall communicate the response to all Parties not later than 30 days before the meeting.

(b) Amendments shall be adopted by a two-thirds majority of Parties present and voting. For these purposes "Parties present and voting" means Parties present and casting an affirmative or negative vote. Parties abstaining from voting shall not be counted among the two-thirds required for adopting an amendment.

(c) Amendments adopted at a meeting shall enter into force 90 days after that meeting for all Parties except those which make a reservation in accordance with paragraph 3 of this Article.

2. The following provisions shall apply in relation to amendments to Appendices I and II between meetings of the Conference of the Parties:

(a) Any Party may propose an amendment to Appendix I or II for consideration between meetings by the postal procedures set forth in this paragraph.

(b) For marine species, the Secretariat shall, upon receiving the text of the proposed amendment, immediately communicate it to the Parties. It shall also consult inter-governmental bodies having a function in relation to those species especially with a view to obtaining scientific data these bodies may be able to provide and to ensuring co-ordination with any conservation measures enforced by such bodies. The Secretariat shall communicate the views expressed and data provided by these bodies and its own findings and recommendations to the Parties as soon as possible.

(c) For species other than marine species, the Secretariat shall, upon receiving the text of the proposed amendment, immediately communicate it to the Parties, and, as soon as possible thereafter, its own recommendations.

(d) Any Party may, within 60 days of the date on which the Secretariat communicated its recommendations to the Parties under sub-paragraph (b) or (c) of this paragraph, transmit to the Secretariat any comments on the proposed amendment together with any relevant scientific data and information.

(e) The Secretariat shall communicate the replies received together with its own recommendations to the Parties as soon as possible.

(f) If no objection to the proposed amendment is received by the Secretariat within 30 days of the date the replies and recommendations were communicated under the provisions of sub-paragraph (e) of this paragraph, the amendment shall enter into force 90 days later for all Parties except those which make a reservation in accordance with paragraph 3 of this Article.

(g) If an objection by any Party is received by the Secretariat, the proposed amendment shall be submitted to a postal vote in accordance with the provisions of sub-paragraphs (h) , (i) and (j) of this paragraph.

(h) The Secretariat shall notify the Parties that notification of objection has been received.

(i) Unless the Secretariat receives the votes for, against or in abstention from at least one-half of the Parties within 60 days of the date of notification under sub-paragraph (h) of this paragraph, the proposed amendment shall be referred to the next meeting of the Conference for further consideration.

(j) Provided that votes are received from one-half of the Parties, the amendment shall be adopted by a two-thirds majority of Parties casting an affirmative or negative vote.

(k) The Secretariat shall notify all Parties of the result of the vote.

(l) If the proposed amendment is adopted it shall enter into force 90 days after the date of the notification by the Secretariat of its acceptance for all Parties except those which make a reservation in accordance with paragraph 3 of this Article.

3. During the period of 90 days provided for by sub-paragraph (c) of paragraph 1 or sub-paragraph (l) of paragraph 2 of this Article any Party may by notification in writing to the Depositary Government make a reservation with respect to the amendment. Until such reservation is withdrawn the Party shall be treated as a State not a Party to the present Convention with respect to trade in the species concerned.

ARTICLE XVI: APPENDIX III ANS AMENDMENTS THERETO

1. Any Party may at any time submit to the Secretariat a list of species which it identifies as being subject to regulation within its jurisdiction for the purpose mentioned in paragraph 3 of Article II. Appendix III shall include the names of the Parties submitting the species for inclusion therein, the scientific names of the species so submitted, and any parts or derivatives of the animals or plants concerned that are specified in relation to the species for the purposes of sub-paragraph (b) of Article I.

2. Each list submitted under the provisions of paragraph 1 of this Article shall be communicated to the Parties by the Secretariat as soon as possible after receiving it. The list shall take effect as part of Appendix III 90 days after the date of such communication. At any time after the communication of such list, any Party may by notification in writing to the Depositary Government enter a reservation with respect to any species or any parts or derivatives, and until such reservation is withdrawn, the State shall be treated as a State not a Party to the present Convention with respect to trade in the species or part or derivative concerned.

3. A Party which has submitted a species for inclusion in Appendix III may withdraw it at any time by notification to the Secretariat which shall communicate the withdrawal to all Parties. The withdrawal shall take effect 30 days after the date of such communication.

4. Any Party submitting a list under the provisions of paragraph 1 of this Article shall submit to the Secretariat a copy of all domestic laws and regulations applicable to the protection of such species, together with any interpretations which the Party may deem appropriate or the Secretariat may request. The Party shall, for as long as the species in question is included in Appendix III, submit any amendments of such laws and regulations or any interpretations as they are adopted.

ARTICLE XVII: AMENDMENMTS OF THE CONVENTION

1. An extraordinary meeting of the Conference of the Parties shall be convened by the Secretariat on the written request of at least one-third of the Parties to consider and adopt amendments to the present Convention. Such amendments shall be adopted by a two-thirds majority of Parties present and voting. For these purposes "Parties present and voting" means Parties present and casting an affirmative or negative vote. Parties abstaining from voting shall not be counted among the two-thirds required for adopting an amendment.

2. The text of any proposed amendment shall be communicated by the Secretariat to all Parties at least 90 days before the meeting.

3. An amendment shall enter into force for the Parties which have accepted it 60 days after two-thirds of the Parties have deposited an instrument of acceptance of the amendment with the Depositary Government. Thereafter, the amendment shall enter into force for any other Party 60 days after that Party deposits its instrument of acceptance of the amendment.

ARTICLE XVIII: RESOLUTION OF DISPUTES

1. Any dispute which may arise between two or more Parties with respect to the interpretation or application of the provisions of the present Convention shall be subject to negotiation between the Parties involved in the dispute.

2. If the dispute can not be resolved in accordance with paragraph 1 of this Article, the Parties may, by mutual consent, submit the dispute to arbitration, in particular that of the Permanent Court of Arbitration at The Hague, and the Parties submitting the dispute shall be bound by the arbitral decision.

ARTICLE XIX: SIGNATURE

The present Convention shall be open for signature at Washington until 30th April 1973 and thereafter at Berne until 31st December 1974.

ARTICLE XX: RATIFICATION, ACCEPTANCE, APPROVAL

The present Convention shall be subject to ratification, acceptance or approval. Instruments of ratification, acceptance or approval shall be deposited with the Government of the Swiss Confederation which shall be the Depositary Government.

ARTICLE XXI: ACCESSION

The present Convention shall be open indefinitely for accession. Instruments of accession shall be deposited with the Depositary Government.

ARTICLE XXII: ENTRY INTO FORCE

1. The present Convention shall enter into force 90 days after the date of deposit of the tenth instrument of ratification, acceptance, approval or accession, with the Depositary Government.

2. For each State which ratifies, accepts or approves the present Convention or accedes thereto after the deposit of the tenth instrument of ratification, acceptance, approval or accession, the present Convention shall enter into force 90 days after the deposit by such State of its instrument of ratification, acceptance, approval or accession.

ARTICLE XXIII: RESERVATIONS

1. The provisions of the present Convention shall not be subject to general reservations. Specific reservations may be entered in accordance with the provisions of this Article and Articles XV and XVI.

2. Any State may, on depositing its instrument of ratification, acceptance, approval or accession, enter a specific reservation with regard to:
   (a) any species included in Appendix I, II or III; or
   (b) any parts or derivatives specified in relation to a species included in Appendix III.

3. Until a Party withdraws its reservation entered under the provisions of this Article, it shall be treated as a State not a Party to the present Convention with respect to trade in the particular species or parts or derivatives specified in such reservation.

ARTICLE XXIV: DENUNCIATION

Any Party may denounce the present Convention by written notification to the Depositary Government at any time. The denunciation shall take effect twelve months after the Depositary Government has received the notification.

ARTICLE XXV: DEPOSITARY

1. The original of the present Convention, in the Chinese, English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited with the Depositary Government, which shall transmit certified copies thereof to all States that have signed it or deposited instruments of accession to it.

2. The Depositary Government shall inform all signatory and acceding States and the Secretariat of signatures, deposit of instruments of ratification, acceptance, approval or accession, entry into force of the present Convention, amendments thereto, entry and withdrawal of reservations and notifications of denunciation.

3. As soon as the present Convention enters into force, a certified copy thereof shall be transmitted by the Depositary Government to the Secretariat of the United Nations for registration and publication in accordance with Article 102 of the Charter of the United Nations.

In witness whereof the undersigned Plenipotentiaries, being duly authorized to that effect, have signed the present Convention.

Done at Washington this third day of March, One Thousand Nine Hundred and Seventy-three.

Date of entry into force — 1 July 1975.

Convention on International Trade in Endangered Species of Wild Fauna and Flora

Appendices I and II

(As adopted by the Conference of the Parties, valid from 18 September 1997 and reprinted with corrections, 30 June 1998)

INTERPRETATION

1. Species included in these appendices are referred to:

   a) by the name of the species; or
   b) as being all of the species included in a higher taxon or designated part thereof.

2. The abbreviation "spp." is used to denote all species of a higher taxon.

3. Other references to taxa higher than species are for the purposes of information or classification only.

4. The following abbreviations are used for plant taxa below the level of species:

   a) "ssp." is used to denote subspecies;
   b) "var(s)." is used to denote variety (varieties); and
   c) "fa." is used to denote *forma*.

5. The abbreviation "p.e." is used to denote species that are possibly extinct.

6. An asterisk (*) placed against the name of a species or higher taxon indicates that one or more geographically separate populations, subspecies or species of that species or taxon are included in Appendix I and are excluded from Appendix II.

7. Two asterisks (**) placed against the name of a species or higher taxon indicate that one or more geographically separate populations, subspecies or species of that species or taxon are included in Appendix II and are excluded from Appendix I.

8. The symbol (-) followed by a number placed against the name of a species or higher taxon denotes that designated geographically separate populations, species, groups of species or families of that species or taxon are excluded from the appendix concerned, as follows:

   -101 Population of West Greenland
   -102 Populations of Bhutan, India, Nepal and Pakistan
   -103 Populations of Botswana, Namibia and Zimbabwe
   -104 Population of Australia
   -105 Populations of *Pecari tajacu* of Mexico and the United States of America
   -106 – Argentina: the population of the Province of Jujuy and the semi-captive populations of the Provinces of Jujuy, Salta, Catamarca, La Rioja and San Juan
   –Bolivia: the populations of the Conservation Units of Mauri-Desaguadero, Ulla Ulla and Lípez-Chichas, with a zero annual export quota
   –Chile: part of the population of Parinacota Province, 1a. Region of Tarapacá
   –Peru: the whole population
   -107 Populations of Afghanistan, Bhutan, India, Myanmar, Nepal and Pakistan
   -108 Cathartidae
   -109 *Melopsittacus undulatus*, *Nymphicus hollandicus* and *Psittacula krameri*
   -110 Population of Argentina
   -111 Population of Ecuador, subject to a zero annual export quota until an annual export quota has been approved by the CITES Secretariat and the IUCN/SSC Crocodile Specialist Group
   -112 Populations of Botswana, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, South Africa, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe
   Apart from ranched specimens, the United Republic of Tanzania will authorize the export of no more than 1100 wild specimens (including 100 hunting trophies) in 1998, 1999 and 2000

-113 Populations of Australia, Indonesia and Papua New Guinea
-114 Population of Chile
-115 All species that are not succulent
-116 *Aloe vera*; also referenced as *Aloe barbadensis*.

9. The symbol (+) followed by a number placed against the name of a species, subspecies or higher taxon denotes that only designated geographically separate populations of that species, subspecies or taxon are included in the appendix concerned, as follows:

+201 Populations of Bhutan, India, Nepal and Pakistan
+202 Populations of Bhutan, China, Mexico and Mongolia
+203 Populations of Cameroon and Nigeria
+204 Population of Asia
+205 Populations of Central and North America
+206 Populations of Bangladesh, India and Thailand
+207 Population of India
+208 Populations of Botswana, Namibia and Zimbabwe
+209 Population of Australia
+210 Population of South Africa
+211 –Argentina: the population of the Province of Jujuy and the semi-captive populations of the Provinces of Jujuy, Salta, Catamarca, La Rioja and San Juan
–Bolivia: the populations of the Conservation Units of Mauri-Desaguadero, Ulla Ulla and López-Chichas, with a zero annual export quota
–Chile: part of the population of Parinacota Province, 1a. Region of Tarapacá
–Peru: the whole population
+212 Populations of Afghanistan, Bhutan, India, Myanmar, Nepal and Pakistan
+213 Population of Mexico
+214 Populations of Algeria, Burkina Faso, Cameroon, the Central African Republic, Chad, Mali, Mauritania, Morocco, the Niger, Nigeria, Senegal and the Sudan
+215 Population of Seychelles
+216 Population of Europe, except the area which formerly constituted the Union of Soviet Socialist Republics
+217 Population of Chile.

10. The symbol (=) followed by a number placed against the name of a species, subspecies or higher taxon denotes that the name of that species, subspecies or taxon shall be interpreted as follows:

=301 Also referenced as *Phalanger maculatus*
=302 Includes family Tupaiidae
=303 Formerly included in family Lemuridae
=304 Formerly included as subspecies of *Callithrix jacchus*
=305 Includes generic synonym *Leontideus*
=306 Formerly included in species *Saguinus oedipus*
=307 Formerly included in *Alouatta palliata*
=308 Formerly included as *Alouatta palliata* (*villosa*)
=309 Includes synonym *Cercopithecus roloway*
=310 Formerly included in genus *Papio*
=311 Includes generic synonym *Simias*
=312 Includes synonym *Colobus badius kirkii*
=313 Includes synonym *Colobus badius rufomitratus*
=314 Includes generic synonym *Rhinopithecus*
=315 Also referenced as *Presbytis entellus*
=316 Also referenced as *Presbytis geei* and *Semnopithecus geei*
=317 Also referenced as *Presbytis pileata* and *Semnopithecus pileatus*
=318 Includes synonyms *Bradypus boliviensis* and *Bradypus griseus*
=319 Includes synonym *Priodontes giganteus*
=320 Includes synonym *Physeter macrocephalus*
=321 Includes synonym *Eschrichtius glaucus*
=322 Formerly included in genus *Balaena*
=323 Formerly included in genus *Dusicyon*
=324 Includes synonym *Dusicyon fulvipes*
=325 Includes generic synonym *Fennecus*
=326 Also referenced as *Selenarctos thibetanus*
=327 Also referenced as *Aonyx microdon* or *Paraonyx microdon*
=328 Formerly included in genus *Lutra*
=329 Formerly included in genus *Lutra*; includes synonyms *Lutra annectens*, *Lutra enudris*, *Lutra incarum* and *Lutra platensis*
=330 Includes synonym *Eupleres major*
=331 Also referenced as *Hyaena brunnea*
=332 Also referenced as *Felis caracal* and *Lynx caracal*
=333 Formerly included in genus *Felis*
=334 Also referenced as *Felis pardina* or *Felis lynx pardina*
=335 Formerly included in genus *Panthera*
=336 Also referenced as *Equus asinus*
=337 Formerly included in species *Equus hemionus*
=338 Also referenced as *Equus caballus przewalskii*
=339 Also referenced as *Choeropsis liberiensis*
=340 Also referenced as *Cervus porcinus calamianensis*
=341 Also referenced as *Cervus porcinus kuhlii*
=342 Also referenced as *Cervus porcinus annamiticus*

=343 Also referenced as *Cervus dama mesopotamicus*
=344 Includes synonym *Bos frontalis*
=345 Includes synonym *Bos grunniens*
=346 Includes generic synonym *Novibos*
=347 Includes generic synonym *Anoa*
=348 Also referenced as *Damaliscus dorcas dorcas* or *Damaliscus pygargus dorcas*
=349 Formerly included in species *Naemorhedus goral*
=350 Also referenced as *Capricornis sumatraensis*
=351 Includes synonym *Oryx tao*
=352 Includes synonym *Ovis aries ophion*
=353 Formerly included as *Ovis vignei* (see also Decisions of the Conference of the Parties directed to the Parties regarding the inclusion of *Ovis vignei vignei* in Appendix I)
=354 Also referenced as *Rupicapra rupicapra ornata*
=355 Also referenced as *Pterocnemia pennata*
=356 Also referenced as *Sula abbotti*
=357 Also referenced as *Ciconia ciconia boyciana*
=358 Includes synonyms *Anas chlorotis* and *Anas nesiotis*
=359 Also referenced as *Anas platyrhynchos laysanensis*
=360 Probably a hybrid between *Anas platyrhynchos* and *Anas superciliosa*
=361 Also referenced as *Aquila heliaca adalberti*
=362 Also referenced as *Chondrohierax wilsonii*
=363 Also referenced as *Falco peregrinus babylonicus* and *Falco peregrinus pelegrinoides*
=364 Also referenced as *Crax mitu mitu*
=365a Formerly included in genus *Aburria*
=365b Formerly included in genus *Aburria*; also referenced as *Pipile pipile pipile*
=366 Formerly included in species *Crossoptilon crossoptilon*
=367 Formerly included in species *Polyplectron malacense*
=368 Includes synonym *Rheinardia nigrescens*
=369 Also referenced as *Tricholimnas sylvestris*
=370 Also referenced as *Choriotis nigriceps*
=371 Also referenced as *Houbaropsis bengalensis*
=372 Also referenced as *Amazona dufresniana rhodocorytha*
=373 Often traded under the incorrect designation *Ara caninde*
=374 Also referenced as *Cyanoramphus novaezelandiae cookii*
=375 Also referenced as *Opopsitta diophthalma coxeni*
=376 Also referenced as *Pezoporus occidentalis*
=377 Formerly included in species *Psephotus chrysopterygius*
=378 Also referenced as *Psittacula krameri echo*
=379 Formerly included in genus *Gallirex*; also referenced as *Tauraco porphyreolophus*
=380 Also referenced as *Otus gurneyi*
=381 Also referenced as *Ninox novaeseelandiae royana*
=382 Formerly included in genus *Glaucis*
=383 Includes generic synonym *Ptilolaemus*
=384 Formerly included in genus *Rhinoplax*
=385 Also referenced as *Pitta brachyura nympha*
=386 Also referenced as *Muscicapa ruecki* or *Niltava ruecki*
=387 Also referenced as *Dasyornis brachypterus longirostris*
=388 Also referenced as *Meliphaga cassidix*
=389 Includes generic synonym *Xanthopsar*
=390 Formerly included in genus *Spinus*
=391 Also referenced in genus *Damonia*
=392 Formerly included as *Kachuga tecta tecta*
=393 Includes generic synonyms *Nicoria* and *Geoemyda* (part)
=394 Also referenced as *Geochelone elephantopus*; also referenced in genus *Testudo*
=395 Also referenced in genus *Testudo*
=396 Also referenced in genus *Aspideretes*
=397 Formerly included in *Podocnemis* spp.
=398 Includes Alligatoridae, Crocodylidae and Gavialidae
=399 Also referenced as *Crocodylus mindorensis*
=400 Also referenced in genus *Nactus*
=401 Includes generic synonym *Rhoptropella*
=402 Formerly included in *Chamaeleo* spp.
=403 Includes generic synonyms *Calumma* and *Furcifer*
=404 Includes families Bolyeriidae and Tropidophiidae as subfamilies
=405 Also referenced as *Constrictor constrictor occidentalis*
=406 Includes synonym *Python molurus pimbura*
=407 Includes synonym *Sanzinia manditra*
=408 Includes synonym *Pseudoboa cloelia*
=409 Also referenced as *Hydrodynastes gigas*
=410 Includes synonyms *Naja atra, Naja kaouthia, Naja oxiana, Naja philippinensis, Naja samarensis, Naja sputatrix* and *Naja sumatrana*
=411 Includes generic synonym *Megalobatrachus*
=412 Formerly included in *Nectophrynoides* spp.
=413 Formerly included in *Dendrobates* spp.
=414 Also referenced in genus *Rana*
=415 *Sensu* D'Abrera
=416 Includes synonyms *Pandinus africanus* and *Heterometrus roeseli*
=417 Includes *Aphonopelma albiceps, Aphonopelma pallidum* and *Brachypelmides klaasi*
=418 Also referenced as *Conchodromus dromas*
=419 Also referenced in genera *Dysnomia* and *Plagiola*
=420 Includes generic synonym *Proptera*
=421 Also referenced in genus *Carunculina*

=422 Also referenced as *Megalonaias nickliniana*

=423 Also referenced as *Cyrtonaias tampicoensis tecomatensis* and *Lampsilis tampicoensis tecomatensis*

=424 Includes generic synonym *Micromya*

=425 Includes generic synonym *Papuina*

=426 Includes only the family Helioporidae with one species *Heliopora coerulea*

=427 Also referenced as *Podophyllum emodi* and *Sinopodophyllum hexandrum*

=428 Includes generic synonyms *Neogomesia* and *Roseocactus*

=429 Also referenced in genus *Echinocactus*

=430 Also referenced in genus *Mammillaria*; includes synonym *Coryphantha densispina*

=431 Also referenced as *Lobeira macdougallii* and *Nopalxochia macdougallii*

=432 Also referenced as *Echinocereus lindsayi*

=433 Also referenced in genera *Cereus* and *Wilcoxia*

=434 Also referenced in genus *Coryphantha*; includes synonym *Escobaria nellieae*

=435 Also referenced in genus *Coryphantha*; includes *Escobaria leei* as a subspecies

=436 Includes synonym *Solisia pectinata*

=437 Also referenced as *Backebergia militaris*, *Cephalocereus militaris* and *Mitrocereus militaris*; includes synonym *Pachycereus chrysomallus*

=438 Includes *Pediocactus bradyi* ssp. *despainii* and *Pediocactus bradyi* ssp. *winkleri* and synonyms *Pediocactus despainii* and *Pediocactus winkleri*

=439 Also referenced in genus *Toumeya*

=440 Also referenced in genera *Navajoa*, *Toumeya* and *Utahia*; includes *Pediocactus peeblesianus* var. *fickeisenii*

=441 Also referenced in genera *Echinocactus* and *Utahia*

=442 Includes generic synonym *Encephalocarpus*

=443 Includes synonyms *Ancistrocactus tobuschii* and *Ferocactus tobuschii*

=444 Also referenced in genera *Echinomastus* and *Neolloydia*; includes synonyms *Echinomastus acunensis* and *Echinomastus krausei*

=445 Includes synonyms *Ferocactus glaucus*, *Sclerocactus brevispinus*, *Sclerocactus wetlandicus* and *Sclerocactus wetlandicus* ssp. *ilseae*

=446 Also referenced in genera *Echinocactus*, *Echinomastus* and *Neolloydia*

=447 Also referenced in genera *Coloradoa*, *Echinocactus*, *Ferocactus* and *Pediocactus*

=448 Also referenced in genera *Echinocactus*, *Mammillaria*, *Pediocactus* and *Toumeya*

=449 Also referenced in genera *Echinocactus* and *Ferocactus*

=450 Also referenced in genus *Pediocactus*

=451 Includes generic synonyms *Gymnocactus*, *Normanbokea* and *Rapicactus*

=452 Also referenced as *Saussurea lappa*

=453 Also referenced as *Euphorbia decaryi* var. *capsaintemariensis*

=454 Includes *Euphorbia cremersii* fa. *viridifolia* and *Euphorbia cremersii* var. *rakotozafyi*

=455 Includes *Euphorbia cylindrifolia* ssp. *tuberifera*

=456 Includes *Euphorbia decaryi* vars. *ampanihyensis*, *robinsonii* and *spirosticha*

=457 Includes *Euphorbia moratii* vars. *antsingiensis*, *bemarahensis* and *multiflora*

=458 Also referenced as *Euphorbia capsaintemariensis* var. *tuleavensis*

=459 Also referenced as *Engelhardia pterocarpa*

=460 Includes *Aloe compressa* var. *rugosquamosa* and *Aloe compressa* var. *schistophila*

=461 Includes *Aloe haworthioides* var. *aurantiaca*

=462 Includes *Aloe laeta* var. *maniaensis*

=463 Includes families Apostasiaceae and Cypripediaceae as subfamilies Apostasioideae and Cypripedioideae

=464 *Anacampseros australiana* and *A. kurtzii* are also referenced in genus *Grahamia*

=465 Formerly included in *Anacampseros* spp.

=466 Also referenced as *Sarracenia rubra* ssp. *alabamensis*

=467 Also referenced as *Sarracenia rubra* ssp. *jonesii*

=468 Formerly included in ZAMIACEAE spp.

=469 Includes synonym *Stangeria paradoxa*

=470 Also referenced as *Taxus baccata* ssp. *wallichiana*

=471 Includes synonym *Welwitschia bainesii*.

11. The symbol (∞) followed by a number placed against the name of a species or higher taxon shall be interpreted as follows:

∞601 A zero annual export quota has been established. All specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly

∞602 Specimens of the domesticated form are not subject to the provisions of the Convention

∞603 Annual export quotas for live specimens and hunting trophies are granted as follows:

Botswana: 5
Namibia: 150
Zimbabwe: 50

The trade in such specimens is subject to the provisions of Article III of the Convention

∞604 For the exclusive purpose of allowing: 1) export of hunting trophies for non-commercial purposes; 2) export of live animals to appropriate and acceptable destinations (Namibia: for non-commercial purposes only); 3) export of hides (Zimbabwe only); 4) export of leather goods and ivory carvings for non-commercial purposes (Zimbabwe only). No international trade in ivory is permitted before 18 months after the transfer to Appendix II comes into effect (i.e. 18 March 1999). Thereafter, under experimental quotas for raw ivory not exceeding 25.3 tonnes (Botswana), 13.8 tonnes (Namibia) and 20 tonnes (Zimbabwe), raw ivory may be exported to Japan subject to the conditions established in Decision of the Conference of the Parties regarding ivory No. 10.1. All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly

∞605 For the exclusive purpose of allowing international trade in live animals to appropriate and acceptable destinations and hunting trophies. All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly

∞606 For the exclusive purpose of allowing international trade in wool sheared from live vicuñas of the populations included in Appendix II (see +211) and in the stock extant at the time of the ninth meeting of the Conference of the Parties (November 1994) in Peru of 3249 kg of wool, and in cloth and items made thereof, including luxury handicrafts and knitted articles. The reverse side of the cloth must bear the logotype adopted by the range States of the species, which are signatories to the *Convenio para la Conservación y Manejo de la Vicuña*, and the selvages the words "VICUÑA-COUNTRY OF ORIGIN", depending on the country of origin. All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly

∞607 Fossils are not subject to the provisions of the Convention

∞608 Artificially propagated specimens of the following hybrids and/or cultivars are not subject to the provisions of the Convention:

Hatiora x *graeseri*
Schlumbergera x *buckleyi*
Schlumbergera russelliana x *Schlumbergera truncata*
Schlumbergera orssichiana x *Schlumbergera truncata*
Schlumbergera opuntioides x *Schlumbergera truncata*
Schlumbergera truncata (cultivars)
Gymnocalycium mihanovichii (cultivars) forms lacking chlorophyll, grafted on the following grafting stocks: *Harrisia* 'Jusbertii', *Hylocereus trigonus* or *Hylocereus undatus*
Opuntia microdasys (cultivars)

∞609 Artificially propagated specimens of cultivars of *Euphorbia trigona* are not subject to the provisions of the Convention

∞610 Seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers are not subject to the provisions of the Convention

°611 Artificially propagated specimens of cultivars of *Cyclamen persicum* are not subject to the provisions of the Convention. However, the exemption does not apply to such specimens traded as dormant tubers.

12. In accordance with Article I, paragraph b, subparagraph (iii), of the Convention, the symbol (#) followed by a number placed against the name of a species or higher taxon included in Appendix II designates parts or derivatives which are specified in relation thereto for the purposes of the Convention as follows:

#1 Designates all parts and derivatives, except:
a) seeds, spores and pollen (including pollinia);
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers; and

c) cut flowers of artificially propagated plants

#2 Designates all parts and derivatives, except:
a) seeds and pollen;
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
c) cut flowers of artificially propagated plants; and
d) chemical derivatives

#3 Designates whole and sliced roots and parts of roots, excluding manufactured parts or derivatives such as powders, pills, extracts, tonics, teas and confectionery

#4 Designates all parts and derivatives, except:
a) seeds, except those from Mexican cacti originating in Mexico, and pollen;
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
c) cut flowers of artificially propagated plants;
d) fruits and parts and derivatives thereof of naturalized or artificially propagated plants; and
e) separate stem joints (pads) and parts and derivatives thereof of naturalized or artificially propagated plants of the genus *Opuntia* subgenus *Opuntia*

#5 Designates logs, sawn wood and veneer sheets

#6 Designates logs, wood-chips and unprocessed broken material

#7 Designates all parts and derivatives, except:
a) seeds and pollen (including pollinia);
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
c) cut flowers of artificially propagated plants; and
d) fruits and parts and derivatives thereof of artificially propagated plants of the genus *Vanilla*

#8 Designates all parts and derivatives, except:
a) seeds and pollen;
b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
c) cut flowers of artificially propagated plants; and
d) finished pharmaceutical products.

13. As none of the species or higher taxa of FLORA included in Appendix I is annotated to the effect that its hybrids shall be treated in accordance with the provisions of Article III of the Convention, this means that artificially propagated hybrids produced from one or more of these species or taxa may be traded with a certificate of artificial propagation, and that seeds and pollen (including pollinia), cut flowers, seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers of these hybrids are not subject to the provisions of the Convention.

FAUNA

CHORDATA

MAMMALIA

MONOTREMATA

Tachyglossidae — *Zaglossus* spp.

DASYUROMORPHIA

Dasyuridae — *Sminthopsis longicaudata*
Sminthopsis psammophila

Thylacinidae — *Thylacinus cynocephalus* p.e.

PERAMELEMORPHIA		
Peramelidae	*Chaeropus ecaudatus* p.c.	
	Macrotis lagotis	
	Macrotis leucura	
	Perameles bougainville	
DIPROTODONTIA		
Phalangeridae		*Phalanger orientalis*
		Spilocuscus maculatus =301
Vombatidae	*Lasiorhinus krefftii*	
Macropodidae		*Dendrolagus inustus*
		Dendrolagus ursinus
	Lagorchestes hirsutus	
	Lagostrophus fasciatus	
	Onychogalea fraenata	
	Onychogalea lunata	
Potoroidae	*Bettongia* spp.	
	Caloprymnus campestris p.c.	
CHIROPTERA		
Pteropodidae		*Acerodon* spp. *
	Acerodon jubatus	
	Acerodon lucifer p.c.	
		Pteropus spp. *
	Pteropus insularis	
	Pteropus mariannus	
	Pteropus molossinus	
	Pteropus phaeocephalus	
	Pteropus pilosus	
	Pteropus samoensis	
	Pteropus tonganus	
PRIMATES		PRIMATES spp. * =302
Lemuridae	Lemuridae spp.	
Megaladapidae	Megaladapidae spp. =303	
Cheirogaleidae	Cheirogaleidae spp.	
Indridae	Indridae spp.	
Daubentoniidae	*Daubentonia madagascariensis*	
Callithricidae	*Callimico goeldii*	
	Callithrix aurita =304	
	Callithrix flaviceps =304	
	Leontopithecus spp. =305	
	Saguinus bicolor	
	Saguinus geoffroyi =306	
	Saguinus leucopus	
	Saguinus oedipus	

Cebidae	*Alouatta coibensis* =305	
	Alouatta palliata	
	Alouatta pigra =308	
	Ateles geoffroyi frontatus	
	Ateles geoffroyi panamensis	
	Brachyteles arachnoides	
	Cacajao spp.	
	Chiropotes albinasus	
	Lagothrix flavicauda	
	Saimiri oerstedii	
Cercopithecidae	*Cercocebus galeritus galeritus*	
	Cercopithecus diana =309	
	Macaca silenus	
	Mandrillus leucophaeus =310	
	Mandrillus sphinx =310	
	Nasalis concolor =311	
	Nasalis larvatus	
	Presbytis potenziani	
	Procolobus pennantii kirkii =312	
	Procolobus rufomitratus =313	
	Pygathrix spp. =314	
	Semnopithecus entellus =315	
	Trachypithecus geei =316	
	Trachypithecus pileatus =317	
Hylobatidae	Hylobatidae spp.	
Hominidae	*Gorilla gorilla*	
	Pan spp.	
	Pongo pygmaeus	
XENARTHRA		
Myrmecophagidae		*Myrmecophaga tridactyla*
Bradypodidae		*Bradypus variegatus* =318
Dasypodidae		*Chaetophractus nationi* =601
	Priodontes maximus =319	
PHOLIDOTA		
Manidae		*Manis* spp.
LAGOMORPHA		
Leporidae	*Caprolagus hispidus*	
	Romerolagus diazi	
RODENTIA		
Sciuridae	*Cynomys mexicanus*	
		Ratufa spp.
Muridae	*Leporillus conditor*	
	Pseudomys praeconis	
	Xeromys myoides	

	Zyzomys pedunculatus	
Chinchillidae	*Chinchilla* spp. ∞602	
CETACEA		CETACEA spp. *
Platanistidae	*Lipotes vexillifer* *Platanista* spp.	
Ziphiidae	*Berardius* spp. *Hyperoodon* spp.	
Physeteridae	*Physeter catodon* =320	
Delphinidae	*Sotalia* spp. *Sousa* spp.	
Phocoenidae	*Neophocaena phocaenoides* *Phocoena sinus*	
Eschrichtiidae	*Eschrichtius robustus* =321	
Balaenopteridae	*Balaenoptera acutorostrata* ** -101 *Balaenoptera borealis* *Balaenoptera edeni* *Balaenoptera musculus* *Balaenoptera physalus* *Megaptera novaeangliae*	
Balaenidae	*Balaena mysticetus* *Eubalaena* spp. =322	
Neobalaenidae	*Caperea marginata*	
CARNIVORA		
Canidae	*Canis lupus* ** +201	*Canis lupus* * -102 *Cerdocyon thous* =323 *Chrysocyon brachyurus* *Cuon alpinus* *Pseudalopex culpaeus* =323 *Pseudalopex griseus* =324 *Pseudalopex gymnocercus* =323
	Speothos venaticus	
		Vulpes cana *Vulpes zerda* =325
Ursidae		Ursidae spp. *
	Ailuropoda melanoleuca *Ailurus fulgens* *Helarctos malayanus* *Melursus ursinus* *Tremarctos ornatus* *Ursus arctos* ** +202 *Ursus arctos isabellinus* *Ursus thibetanus* =326	

Mustelidae		
Lutrinae		Lutrinae spp. *
	Aonyx congicus ** +203 =327	
	Enhydra lutris nereis	
	Lontra felina =328	
	Lontra longicaudis =329	
	Lontra provocax =328	
	Lutra lutra	
	Pteronura brasiliensis	
Mephitinae		*Conepatus humboldtii*
Mustelinae	*Mustela nigripes*	
Viverridae		*Cryptoprocta ferox*
		Cynogale bennettii
		Eupleres goudotii =330
		Fossa fossana
		Hemigalus derbyanus
		Prionodon linsang
	Prionodon pardicolor	
Hyaenidae		*Parahyaena brunnea* =331
Felidae		Felidae spp. * ∞602
	Acinonyx jubatus ∞603	
	Caracal caracal ** +204 =332	
	Catopuma temminckii =333	
	Felis nigripes	
Felidae (cont.)	*Herpailurus yaguarondi* ** +205 =333	
	Leopardus pardalis =333	
	Leopardus tigrinus =333	
	Leopardus wiedii =333	
	Lynx pardinus =334	
	Neofelis nebulosa	
	Oncifelis geoffroyi =333	
	Oreailurus jacobita =333	
	Panthera leo persica	
	Panthera onca	
	Panthera pardus	
	Panthera tigris	
	Pardofelis marmorata =333	
	Prionailurus bengalensis bengalensis ** +206 =333	
	Prionailurus planiceps =333	
	Prionailurus rubiginosus ** +207 =333	
	Puma concolor coryi =333	
	Puma concolor costaricensis =333	
	Puma concolor couguar =333	
	Uncia uncia =335	
Otariidae		*Arctocephalus* spp. *
	Arctocephalus townsendi	
Phocidae		*Mirounga leonina*
	Monachus spp.	

PROBOSCIDEA		
Elephantidae	*Elephas maximus* *Loxodonta africana* ** -103	*Loxodonta africana* * +208 ∞604
SIRENIA		
Dugongidae	*Dugong dugon* ** -104	*Dugong dugon* * +209
Trichechidae	*Trichechus inunguis* *Trichechus manatus*	
		Trichechus senegalensis
PERISSODACTYLA		
Equidae	*Equus africanus* =336 *Equus grevyi*	
		Equus hemionus *
	Equus hemionus hemionus	
		Equus kiang =337 *Equus onager* * =337
	Equus onager khur =337 *Equus przewalskii* =338	
		Equus zebra hartmannae
	Equus zebra zebra	
Tapiridae	Tapiridae spp. **	
		Tapirus terrestris
Rhinocerotidae	Rhinocerotidae spp. **	
		Ceratotherium simum simum * +210 ∞605
ARTIODACTYLA		
Suidae	*Babyrousa babyrussa* *Sus salvanius*	
Tayassuidae		Tayassuidae spp. * -105
	Catagonus wagneri	
Hippopotamidae		*Hexaprotodon liberiensis* = 339 *Hippopotamus amphibius*
Camelidae		*Lama guanicoe*
	Vicugna vicugna ** -106	*Vicugna vicugna* * +211 ∞606
Moschidae	*Moschus* spp. ** +212	*Moschus* spp. * -107
Cervidae	*Axis calamianensis* =340 *Axis kuhlii* =341 *Axis porcinus annamiticus* =342 *Blastocerus dichotomus* *Cervus duvaucelii*	
		Cervus elaphus bactrianus
	Cervus elaphus hanglu *Cervus eldii* *Dama mesopotamica* =343 *Hippocamelus* spp.	

	Megamuntiacus vuquanghensis	
	Muntiacus crinifrons	
	Ozotoceros bezoarticus	
		Pudu mephistophiles
	Pudu pudu	
Antilocapridae	*Antilocapra americana* +213	
Bovidae	*Addax nasomaculatus*	
		Ammotragus lervia
		Bison bison athabascae
	Bos gaurus =344	
	Bos mutus =345 ∞602	
	Bos sauveli =346	
	Bubalus depressicornis =347	
	Bubalus mindorensis =347	
	Bubalus quarlesi =347	
		Budorcas taxicolor
	Capra falconeri	
		Cephalophus dorsalis
	Cephalophus jentinki	
		Cephalophus monticola
Bovidae (cont.)		*Cephalophus ogilbyi*
		Cephalophus silvicultor
		Cephalophus zebra
		Damaliscus pygargus pygargus =348
	Gazella dama	
	Hippotragus niger variani	
		Kobus leche
	Naemorhedus baileyi =349	
	Naemorhedus caudatus =349	
	Naemorhedus goral	
	Naemorhedus sumatraensis =350	
	Oryx dammah =351	
	Oryx leucoryx	
		Ovis ammon *
	Ovis ammon hodgsonii	
	Ovis ammon nigrimontana	
		Ovis canadensis +213
	Ovis orientalis ophion =352	
	Ovis vignei vignei =353	
	Pantholops hodgsonii	
	Pseudoryx nghetinhensis	
	Rupicapra pyrenaica ornata =354	
		Saiga tatarica
AVES		
STRUTHIONIFORMES		
Struthionidae	*Struthio camelus* +214	
RHEIFORMES		
Rheidae		*Rhea americana*
	Rhea pennata =355	

TINAMIFORMES		
Tinamidae	*Tinamus solitarius*	
SPHENISCIFORMES		
Spheniscidae		*Spheniscus demersus*
	Spheniscus humboldti	
PODICIPEDIFORMES		
Podicipedidae	*Podilymbus gigas*	
PROCELLARIIFORMES		
Diomedeidae	*Diomedea albatrus*	
PELECANIFORMES		
Pelecanidae	*Pelecanus crispus*	
Sulidae	*Papasula abbotti* =356	
Fregatidae	*Fregata andrewsi*	
CICONIIFORMES		
Balaenicipitidae		*Balaeniceps rex*
Ciconiidae	*Ciconia boyciana* =357	
		Ciconia nigra
	Jabiru mycteria	
	Mycteria cinerea	
Threskiornithidae		*Eudocimus ruber*
		Geronticus calvus
	Geronticus eremita	
	Nipponia nippon	
		Platalea leucorodia
Phoenicopteridae		Phoenicopteridae spp.
ANSERIFORMES		
Anatidae	*Anas aucklandica* =358	
		Anas bernieri
		Anas formosa
	Anas laysanensis =359	
	Anas oustaleti =360	
	Branta canadensis leucopareia	
		Branta ruficollis
	Branta sandvicensis	
	Cairina scutulata	
		Coscoroba coscoroba
		Cygnus melanocorypha
		Dendrocygna arborea
		Oxyura leucocephala

	Rhodonessa caryophyllacea p.e.	
		Sarkidiornis melanotos
FALCONIFORMES		FALCONIFORMES spp. * -108
Cathartidae	*Gymnogyps californianus*	
	Vultur gryphus	
Accipitridae	*Aquila adalberti* =361	
	Aquila heliaca	
	Chondrohierax uncinatus wilsonii =362	
	Haliaeetus albicilla	
	Haliaeetus leucocephalus	
	Harpia harpyja	
	Pithecophaga jefferyi	
Falconidae	*Falco araea*	
	Falco jugger	
	Falco newtoni ** +215	
	Falco pelegrinoides =363	
	Falco peregrinus	
	Falco punctatus	
	Falco rusticolus	
GALLIFORMES		
Megapodiidae	*Macrocephalon maleo*	
Cracidae	*Crax blumenbachii*	
	Mitu mitu =364	
	Oreophasis derbianus	
	Penelope albipennis	
	Pipile jacutinga =365a	
	Pipile pipile =365b	
Phasianidae		*Argusianus argus*
	Catreus wallichii	
	Colinus virginianus ridgwayi	
	Crossoptilon crossoptilon	
	Crossoptilon harmani =366	
Phasianidae (cont.)	*Crossoptilon mantchuricum*	
		Gallus sonneratii
		Ithaginis cruentus
	Lophophorus impejanus	
	Lophophorus lhuysii	
	Lophophorus sclateri	
	Lophura edwardsi	
	Lophura imperialis	
	Lophura swinhoii	
		Pavo muticus
		Polyplectron bicalcaratum
	Polyplectron emphanum	
		Polyplectron germaini
		Polyplectron malacense
		Polyplectron schleiermacheri =367
	Rheinardia ocellata =368	
	Syrmaticus ellioti	
	Syrmaticus humiae	

	Syrmaticus mikado	
	Tetraogallus caspius	
	Tetraogallus tibetanus	
	Tragopan blythii	
	Tragopan caboti	
	Tragopan melanocephalus	
	Tympanuchus cupido attwateri	
GRUIFORMES		
Gruidae		Gruidae spp. *
	Grus americana	
	Grus canadensis nesiotes	
	Grus canadensis pulla	
	Grus japonensis	
	Grus leucogeranus	
	Grus monacha	
	Grus nigricollis	
	Grus vipio	
Rallidae	*Gallirallus sylvestris* =369	
Rhynochetidae	*Rhynochetos jubatus*	
Otididae		Otididae spp. *
	Ardeotis nigriceps =370	
	Chlamydotis undulata	
	Eupodotis bengalensis =371	
CHARADRIIFORMES		
Scolopacidae	*Numenius borealis*	
	Numenius tenuirostris	
	Tringa guttifer	
Laridae	*Larus relictus*	
COLUMBIFORMES		
Columbidae	*Caloenas nicobarica*	
	Ducula mindorensis	
		Gallicolumba luzonica
		Goura spp.
PSITTACIFORMES		PSITTACIFORMES spp. * -109
Psittacidae	*Amazona arausiaca*	
	Amazona barbadensis	
	Amazona brasiliensis	
	Amazona guildingii	
	Amazona imperialis	
	Amazona leucocephala	
	Amazona pretrei	
	Amazona rhodocorytha =372	
	Amazona tucumana	
	Amazona versicolor	
	Amazona vinacea	
	Amazona viridigenalis	

	Amazona vittata	
	Anodorhynchus spp.	
	Ara ambigua	
	Ara glaucogularis =373	
	Ara macao	
	Ara maracana	
	Ara militaris	
	Ara rubrogenys	
	Aratinga guarouba	
	Cacatua goffini	
	Cacatua haematuropygia	
	Cacatua moluccensis	
	Cyanopsitta spixii	
	Cyanoramphus auriceps forbesi	
	Cyanoramphus cookii =374	
	Cyanoramphus novaezelandiae	
	Cyclopsitta diophthalma coxeni =375	
	Eos histrio	
	Geopsittacus occidentalis p.e. =376	
	Neophema chrysogaster	
	Ognorhynchus icterotis	
	Pezoporus wallicus	
	Pionopsitta pileata	
	Probosciger aterrimus	
	Psephotus chrysopterygius	
	Psephotus dissimilis =377	
	Psephotus pulcherrimus p.e.	
	Psittacula echo =378	
	Pyrrhura cruentata	
	Rhynchopsitta spp.	
	Strigops habroptilus	
	Vini ultramarina	
CUCULIFORMES		
Musophagidae		*Musophaga porphyreolopha* =379
		Tauraco spp.
STRIGIFORMES		STRIGIFORMES spp. *
Tytonidae	*Tyto soumagnei*	
Strigidae	*Athene blewitti*	
	Mimizuku gurneyi =380	
	Ninox novaeseelandiae undulata =381	
	Ninox squamipila natalis	
APODIFORMES		
Trochilidae		Trochilidae spp. *
	Ramphodon dohrnii =382	
TROGONIFORMES		
Trogonidae	*Pharomachrus mocinno*	
CORACIIFORMES		

Bucerotidae		*Aceros* spp. *
	Aceros nipalensis	
	Aceros subruficollis	
		Anorrhinus spp. =383
		Anthracoceros spp.
		Buceros spp. *
	Buceros bicornis	
	Buceros vigil =384	
		Penelopides spp.
PICIFORMES		
Ramphastidae		*Pteroglossus aracari*
		Pteroglossus viridis
		Ramphastos sulfuratus
		Ramphastos toco
		Ramphastos tucanus
		Ramphastos vitellinus
Picidae	*Campephilus imperialis*	
	Dryocopus javensis richardsi	
PASSERIFORMES		
Cotingidae	*Cotinga maculata*	
		Rupicola spp.
	Xipholena atropurpurea	
Pittidae		*Pitta guajana*
	Pitta gurneyi	
	Pitta kochi	
		Pitta nympha =385
Atrichornithidae	*Atrichornis clamosus*	
Hirundinidae	*Pseudochelidon sirintarae*	
Pycnonotidae		*Pycnonotus zeylanicus*
Muscicapidae		*Cyornis ruckii* =386
	Dasyornis broadbenti litoralis p.c.	
	Dasyornis longirostris =387	
		Leiothrix argentauris
		Leiothrix lutea
		Liocichla omeiensis
	Picathartes gymnocephalus	
	Picathartes oreas	
Zosteropidae	*Zosterops albogularis*	
Meliphagidae	*Lichenostomus melanops cassidix* =388	
Emberizidae		*Gubernatrix cristata*
		Paroaria capitata
		Paroaria coronata
		Tangara fastuosa
Icteridae	*Agelaius flavus* =389	

Fringillidae	*Carduelis cucullata* =390	
		Carduelis yarrellii =390
Estrildidae		*Amandava formosa*
		Padda oryzivora
		Poephila cincta cincta
Sturnidae		*Gracula religiosa*
	Leucopsar rothschildi	
Paradisaeidae		Paradisaeidae spp.
<u>REPTILIA</u>		
TESTUDINATA		
Dermatemydidae		*Dermatemys mawii*
Emydidae	*Batagur baska*	
		Callagur borneoensis
		Clemmys insculpta
	Clemmys muhlenbergi	
	Geoclemys hamiltonii =391	
	Kachuga tecta =392	
	Melanochelys tricarinata =393	
	Morenia ocellata	
		Terrapene spp. *
	Terrapene coahuila	
Testudinidae		Testudinidae spp. *
	Geochelone nigra =394	
	Geochelone radiata =395	
	Geochelone yniphora =395	
	Gopherus flavomarginatus	
	Psammobates geometricus =395	
	Testudo kleinmanni	
Cheloniidae	Cheloniidae spp.	
Dermochelyidae	*Dermochelys coriacea*	
Trionychidae		*Lissemys punctata*
	Trionyx ater =396	
	Trionyx gangeticus =396	
	Trionyx hurum =396	
	Trionyx nigricans =396	
Pelomedusidae		*Erymnochelys madagascariensis* =397
		Peltocephalus dumeriliana =397
		Podocnemis spp.
Chelidae	*Pseudemydura umbrina*	
CROCODYLIA		CROCODYLIA spp. * =398
Alligatoridae	*Alligator sinensis*	
	Caiman crocodilus apaporiensis	

	Caiman latirostris ** -110	
	Melanosuchus niger ** -111	
Crocodylidae	*Crocodylus acutus*	
	Crocodylus cataphractus	
	Crocodylus intermedius	
	Crocodylus moreletii	
	Crocodylus niloticus ** -112	
Crocodylidae (cont.)	*Crocodylus novaeguineae mindorensis* =399	
	Crocodylus palustris	
	Crocodylus porosus ** -113	
	Crocodylus rhombifer	
	Crocodylus siamensis	
	Osteolaemus tetraspis	
	Tomistoma schlegelii	
Gavialidae	*Gavialis gangeticus*	
RHYNCHOCEPHALIA		
Sphenodontidae	*Sphenodon* spp.	
SAURIA		
Gekkonidae		*Cyrtodactylus serpensinsula* =400
		Phelsuma spp. =401
Agamidae		*Uromastyx* spp.
Chamaeleonidae		*Bradypodion* spp. =402
		Chamaeleo spp. =403
Iguanidae		*Amblyrhynchus cristatus*
	Brachylophus spp.	
		Conolophus spp.
	Cyclura spp.	
		Iguana spp.
		Phrynosoma coronatum
	Sauromalus varius	
Lacertidae	*Gallotia simonyi*	
		Podarcis lilfordi
		Podarcis pityusensis
Cordylidae		*Cordylus* spp.
		Pseudocordylus spp.
Teiidae		*Cnemidophorus hyperythrus*
		Crocodilurus lacertinus
		Dracaena spp.
		Tupinambis spp.
Scincidae		*Corucia zebrata*
Xenosauridae		*Shinisaurus crocodilurus*
Helodermatidae		*Heloderma* spp.

Varanidae		*Varanus* spp. *
	Varanus bengalensis	
	Varanus flavescens	
	Varanus griseus	
	Varanus komodoensis	
SERPENTES		
Boidae		Boidae spp. * =404
	Acrantophis spp.	
	Boa constrictor occidentalis =405	
	Bolyeria multocarinata	
	Casarea dussumieri	
	Epicrates inornatus	
	Epicrates monensis	
	Epicrates subflavus	
	Python molurus molurus =406	
	Sanzinia madagascariensis =407	
Colubridae		*Clelia clelia* =408
		Cyclagras gigas =409
		Elachistodon westermanni
		Ptyas mucosus
Elapidae		*Hoplocephalus bungaroides*
		Naja naja =410
		Ophiophagus hannah
Viperidae	*Vipera ursinii* +216	
		Vipera wagneri
AMPHIBIA		
CAUDATA		
Ambystomidae		*Ambystoma dumerilii*
		Ambystoma mexicanum
Cryptobranchidae	*Andrias* spp. =411	
ANURA		
Bufonidae	*Altiphrynoides* spp. =412	
	Atelopus varius zeteki	
	Bufo periglenes	
		Bufo retiformis
	Bufo superciliaris	
	Nectophrynoides spp.	
	Nimbaphrynoides spp. =412	
	Spinophrynoides spp. =412	
Myobatrachidae		*Rheobatrachus* spp.
Dendrobatidae		*Allobates* spp. =413
		Dendrobates spp.
		Epipedobates spp. =413
		Minyobates spp. =413
		Phobobates spp. =413
		Phyllobates spp.

Ranidae		*Mantella aurantiaca* *Euphlyctis hexadactylus* =414 *Hoplobatrachus tigerinus* =414
Microhylidae	*Dyscophus antongilii*	
PISCES		
CERATODONTIFORMES		
Ceratodontidae		*Neoceratodus forsteri*
COELACANTHIFORMES		
Latimeriidae	*Latimeria chalumnae*	
ACIPENSERIFORMES		[1]ACIPENSERIFORMES spp. *
Acipenseridae	*Acipenser brevirostrum* *Acipenser sturio*	*Acipenser oxyrhynchus*
Polyodontidae		*Polyodon spathula*
OSTEOGLOSSIFORMES		
Osteoglossidae	*Scleropages formosus*	*Arapaima gigas*
CYPRINIFORMES		
Cyprinidae	*Probarbus jullieni*	*Caecobarbus geertsi*
Catostomidae	*Chasmistes cujus*	
SILURIFORMES		
Pangasiidae	*Pangasianodon gigas*	
PERCIFORMES		
Sciaenidae	*Cynoscion macdonaldi*	
ARTHROPODA		
INSECTA		
LEPIDOPTERA		

[1] This inclusion entered into force on 1 April 1998/Esta inclusión entró en vigor el 1 de abril de 1998/ Cette inscription est entrée en vigueur le 1er avril 1998

Papilionidae		*Bhutanitis* spp.
		Ornithoptera spp. * =415
	Ornithoptera alexandrae	
	Papilio chikae	
	Papilio homerus	
	Papilio hospiton	
		Parnassius apollo
		Teinopalpus spp.
		Trogonoptera spp. =415
		Troides spp. =415
ARACHNIDA		
SCORPIONES		
Scorpionidae		*Pandinus dictator*
		Pandinus gambiensis
		Pandinus imperator =416
ARANEAE		
Theraphosidae		*Brachypelma* spp. =417
ANNELIDA		
HIRUDINOIDEA		
ARHYNCHOBDELLAE		
Hirudinidae		*Hirudo medicinalis*
MOLLUSCA		
BIVALVIA		
VENEROIDA		
Tridacnidae		Tridacnidae spp.
UNIONOIDA		
Unionidae	*Conradilla caelata*	
		Cyprogenia aberti
	Dromus dromas =418	
	Epioblasma curtisi =419	
	Epioblasma florentina =419	
	Epioblasma sampsoni =419	
	Epioblasma sulcata perobliqua =419	
	Epioblasma torulosa gubernaculum =419	
		Epioblasma torulosa rangiana =419
	Epioblasma torulosa torulosa =419	
	Epioblasma turgidula =419	
	Epioblasma walkeri =419	
	Fusconaia cuneolus	
	Fusconaia edgariana	

	Lampsilis higginsii	
	Lampsilis orbiculata orbiculata	
	Lampsilis satur	
	Lampsilis virescens	
	Plethobasus cicatricosus	
	Plethobasus cooperianus	
		Pleurobema clava
	Pleurobema plenum	
	Potamilus capax =420	
	Quadrula intermedia	
	Quadrula sparsa	
	Toxolasma cylindrella =421	
	Unio nickliniana =422	
	Unio tampicoensis tecomatensis =423	
	Villosa trabalis =424	
GASTROPODA		
STYLOMMATOPHORA		
Achatinellidae	*Achatinella* spp.	
Camaenidae		*Papustyla pulcherrima* =425
MESOGASTROPODA		
Strombidae		*Strombus gigas*
CNIDARIA		
ANTHOZOA		
COENOTHECALIA		**COENOTHECALIA spp. =426 ∞607**
STOLONIFERA		
Tubiporidae		Tubiporidae spp. ∞607
ANTIPATHARIA		ANTIPATHARIA spp.
SCLERACTINIA		SCLERACTINIA spp. ∞607
HYDROZOA		
MILLEPORINA		
Milleporidae		Milleporidae spp. ∞607
STYLASTERINA		
Stylasteridae		Stylasteridae spp. ∞607
FLORA		
AGAVACEAE	*Agave arizonica*	
	Agave parviflora	

		Agave victoriae-reginae #1
	Nolina interrata	
AMARYLLIDACEAE		*Galanthus* spp. #1 *Sternbergia* spp. #1
APOCYNACEAE		*Pachypodium* spp. * #1
	Pachypodium ambongense *Pachypodium baronii* *Pachypodium decaryi*	
		Rauvolfia serpentina #2
ARALIACEAE		*Panax quinquefolius* #3
ARAUCARIACEAE	*Araucaria araucana* ** +217	*Araucaria araucana* * -114 #1
ASCLEPIADACEAE		*Ceropegia* spp. #1 *Frerea indica* #1
BERBERIDACEAE		*Podophyllum hexandrum* =427 #2
BROMELIACEAE		*Tillandsia harrisii* #1 *Tillandsia kammii* #1 *Tillandsia kautskyi* #1 *Tillandsia mauryana* #1 *Tillandsia sprengeliana* #1 *Tillandsia sucrei* #1 *Tillandsia xerographica* #1
BYBLIDACEAE		*Byblis* spp. #1
CACTACEAE		CACTACEAE spp. * ∞608 #4
	Ariocarpus spp. =428 *Astrophytum asterias* =429 *Aztekium ritteri* *Coryphantha werdermannii* =430 *Discocactus* spp. *Disocactus macdougallii* =431 *Echinocereus ferreirianus* ssp. *lindsayi* =432 *Echinocereus schmollii* =433 *Escobaria minima* =434 *Escobaria sneedii* =435 *Mammillaria pectinifera* =436 *Mammillaria solisioides* *Melocactus conoideus* *Melocactus deinacanthus* *Melocactus glaucescens* *Melocactus paucispinus* *Obregonia denegrii*	
CACTACEAE (cont.)	*Pachycereus militaris* =437 *Pediocactus bradyi* =438 *Pediocactus knowltonii* =439 *Pediocactus paradinei* *Pediocactus peeblesianus* =440 *Pediocactus sileri* =441 *Pelecyphora* spp. =442	

	Sclerocactus brevihamatus ssp. *tobuschii* =443 *Sclerocactus erectocentrus* =444 *Sclerocactus glaucus* =445 *Sclerocactus mariposensis* =446 *Sclerocactus mesae-verdae* =447 *Sclerocactus papyracanthus* =448 *Sclerocactus pubispinus* =449 *Sclerocactus wrightiae* =450 *Strombocactus* spp. *Turbinicarpus* spp. =451 *Uebelmannia* spp.	
CARYOCARACEAE		*Caryocar costaricense* #1
CEPHALOTACEAE		*Cephalotus follicularis* #1
COMPOSITAE (ASTERACEAE)	*Saussurea costus* =452	
CRASSULACEAE	*Dudleya stolonifera* *Dudleya traskiae*	
CUPRESSACEAE	*Fitzroya cupressoides* *Pilgerodendron uviferum*	
CYATHEACEAE		CYATHEACEAE spp. #1
CYCADACEAE	*Cycas beddomei*	CYCADACEAE spp. * #1
DIAPENSIACEAE		*Shortia galacifolia* #1
DICKSONIACEAE		DICKSONIACEAE spp. #1
DIDIEREACEAE		DIDIEREACEAE spp. #1
DIOSCOREACEAE		*Dioscorea deltoidea* #1
DROSERACEAE		*Dionaea muscipula* #1
ERICACEAE		*Kalmia cuneata* #1
EUPHORBIACEAE	*Euphorbia ambovombensis* *Euphorbia capsaintemariensis* =453 *Euphorbia cremersii* =454 *Euphorbia cylindrifolia* =455 *Euphorbia decaryi* =456 *Euphorbia francoisii* *Euphorbia moratii* =457 *Euphorbia parvicyathophora* *Euphorbia quartziticola* *Euphorbia tulearensis* =458	*Euphorbia* spp. * -115 ∞609 #1
FOUQUIERIACEAE	*Fouquieria fasciculata* *Fouquieria purpusii*	*Fouquieria columnaris* #1

JUGLANDACEAE		*Oreomunnea pterocarpa* =459 #1
LEGUMINOSAE (FABACEAE)	*Dalbergia nigra*	*Pericopsis elata* #5 *Platymiscium pleiostachyum* #1 *Pterocarpus santalinus* #6
LILIACEAE		*Aloe* spp. * -116 #1
	Aloe albida *Aloe albiflora* *Aloe alfredii* *Aloe bakeri* *Aloe bellatula* *Aloe calcairophila* *Aloe compressa* =460 *Aloe delphinensis* *Aloe descoingsii* *Aloe fragilis* *Aloe haworthioides* =461 *Aloe helenae* *Aloe laeta* =462 *Aloe parallelifolia* *Aloe parvula* *Aloe pillansii* *Aloe polyphylla* *Aloe rauhii* *Aloe suzannae* *Aloe thorncroftii* *Aloe versicolor* *Aloe vossii*	
MELIACEAE		*Swietenia humilis* #1 *Swietenia mahagoni* #5
NEPENTHACEAE		*Nepenthes* spp. * #1
	Nepenthes khasiana *Nepenthes rajah*	
ORCHIDACEAE		ORCHIDACEAE spp. * =463 #7
	Cattleya trianaei ∞610 *Dendrobium cruentum* ∞610 *Laelia jongheana* ∞610 *Laelia lobata* ∞610 *Paphiopedilum* spp. ∞610 *Peristeria elata* ∞610 *Phragmipedium* spp. ∞610 *Renanthera imschootiana* ∞610 *Vanda coerulea* ∞610	
PALMAE (ARECACEAE)		*Chrysalidocarpus decipiens* #1 *Neodypsis decaryi* #1
PINACEAE	*Abies guatemalensis*	
PODOCARPACEAE	*Podocarpus parlatorei*	

PORTULACACEAE		*Anacampseros* spp. =464 #1 *Avonia* spp. =465 #1 *Lewisia cotyledon* #1 *Lewisia maguirei* #1 *Lewisia serrata* #1
PRIMULACEAE		*Cyclamen* spp. ∞611 #1
PROTEACEAE		*Orothamnus zeyheri* #1 *Protea odorata* #1
RANUNCULACEAE		*Hydrastis canadensis* #3
ROSACEAE		*Prunus africana* #1
RUBIACEAE	*Balmea stormiae*	
SARRACENIACEAE		*Darlingtonia californica* #1 *Sarracenia* spp. * #1
	Sarracenia alabamensis ssp. *alabamensis* =466 *Sarracenia jonesii* =467 *Sarracenia oreophila*	
SCROPHULARIACEAE		*Picrorhiza kurrooa* #3
STANGERIACEAE	*Stangeria eriopus* =469	*Bowenia* spp. =468 #1
TAXACEAE		*Taxus wallichiana* =470 #8
THYMELEACEAE (AQUILARIACEAE)		*Aquilaria malaccensis* #1
VALERIANACEAE		*Nardostachys grandiflora* #3
WELWITSCHIACEAE		*Welwitschia mirabilis* =471 #1
ZAMIACEAE	*Ceratozamia* spp. *Chigua* spp. *Encephalartos* spp. *Microcycas calocoma*	ZAMIACEAE spp. * #1
ZINGIBERACEAE		*Hedychium philippinense* #1
ZYGOPHYLLACEAE		*Guaiacum officinale* #1 *Guaiacum sanctum* #1

Convention on International Trade in Endangered Species of Wild Fauna and Flora

APPENDIX III

(Valid from 29 April 1999)

INTERPRETATION

1. References to taxa higher than species are for the purpose of information or classification only.

2. The symbol (+) followed by a number placed against the name of a species denotes that only designated geographically separate populations of that species are included in Appendix III as follows:

   +218 Population of the species in Bolivia
   +219 Population of the species in Brazil
   +220 All populations of the species in the Americas
   +221 Population of the species in Mexico.

3. The symbol (=) followed by a number placed against the name of a species denotes that the name of that species shall be interpreted as follows:

   =472 Also referenced as *Vampyrops lineatus*
   =473 Formerly included as *Tamandua tetradactyla* (in part)
   =474 Includes synonym *Cabassous gymnurus*
   =475 Includes generic synonym *Coendou*
   =476 Includes generic synonym *Cuniculus*
   =477 Includes synonym *Vulpes vulpes leucopus*
   =478 Formerly included as *Nasua nasua*
   =479 Includes synonym *Galictis allamandi*
   =480 Formerly included in *Martes flavigula*
   =481 Includes generic synonym *Viverra*
   =482 Formerly included as *Viverra megaspila*
   =483 Formerly included as *Herpestes auropunctatus*
   =484 Formerly included as *Herpestes fuscus*
   =485 Formerly included as *Bubalus bubalis* (domesticated form)
   =486 Also referenced as *Boocercus eurycerus*; includes generic synonym *Taurotragus*
   =487 Also referenced as *Ardeola ibis*
   =488 Also referenced as *Egretta alba* and *Ardea alba*
   =489 Also referenced as *Hagedashia hagedash*
   =490 Also referenced as *Lampribis rara*
   =491 Also referenced as *Spatula clypeata*
   =492 Also referenced as *Nyroca nyroca*
   =493 Includes synonym *Dendrocygna fulva*
   =494 Also referenced as *Cairina hartlaubii*
   =495 Also referenced as *Crax pauxi*
   =496 Formerly included as *Arborophila brunneopectus* (in part)
   =497 Also referenced as *Turturoena iriditorques*; formerly included as *Columba malherbii* (in part)
   =498 Also referenced as *Nesoenas mayeri*
   =499 Formerly included as *Treron australis* (in part)
   =500 Also referenced as *Calopelia brehmeri*; includes synonym *Calopelia puella*
   =501 Also referenced as *Tympanistria tympanistria*
   =502 Also referenced as *Tchitrea bourbonnensis*
   =503 Formerly included as *Serinus gularis* (in part)
   =504 Also referenced as *Estrilda subflava* or *Sporaegithus subflavus*
   =505 Formerly included as *Lagonosticta larvata* (in part)
   =506 Includes generic synonym *Spermestes*
   =507 Also referenced as *Euodice cantans*; formerly included as *Lonchura malabarica* (in part)
   =508 Also referenced as *Hypargos nitidulus*
   =509 Formerly included as *Parmoptila woodhousei* (in part)
   =510 Includes synonyms *Pyrenestes frommi* and *Pyrenestes rothschildi*
   =511 Also referenced as *Estrilda bengala*
   =512 Also referenced as *Malimbus rubriceps* or *Anaplectes melanotis*
   =513 Also referenced as *Coliuspasser ardens*
   =514 Formerly included as *Euplectes orix* (in part)
   =515 Also referenced as *Coliuspasser macrourus*
   =516 Also referenced as *Ploceus superciliosus*
   =517 Includes synonym *Ploceus nigriceps*
   =518 Also referenced as *Sitagra luteola*
   =519 Also referenced as *Sitagra melanocephala*
   =520 Formerly included as *Ploceus velatus*
   =521 Also referenced as *Hypochera chalybeata*;

includes synonyms *Vidua amauropteryx*, *Vidua centralis*, *Vidua neumanni*, *Vidua okavangoensis* and *Vidua ultramarina*

=522 Formerly included as *Vidua paradisaea* (in part)

=523 Also referenced as *Pelusios subniger*

=524 Formerly included in genus *Natrix*

=525 Formerly included as *Talauma hodgsonii*; also referenced as *Magnolia hodgsonii* and *Magnolia candollii* var. *obovata*.

4. The names of the countries placed against the names of species are those of the Parties submitting these species for inclusion in this appendix.

5. Any animal, whether live or dead, of a species listed in this appendix, is covered by the provisions of the Convention, as is any readily recognizable part or derivative thereof.

6. In accordance with Article I, paragraph (b), subparagraph (iii), of the Convention, the symbol (#) followed by a number placed against the name of a plant species included in Appendix III designates parts or derivatives which are specified in relation thereto for the purposes of the Convention as follows:

#1 Designates all readily recognizable parts and derivatives, except:

a) seeds, spores and pollen (including pollinia);

b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers; and

c) cut flowers of artificially propagated plants

#5 Designates logs, sawn wood and veneer sheets.

FAUNA

CHORDATA

MAMMALIA

CHIROPTERA

Phyllostomidae	*Platyrrhinus lineatus* =472	Uruguay
XENARTHRA		
Myrmecophagidae	*Tamandua mexicana* =473	Guatemala
Megalonychidae	*Choloepus hoffmanni*	Costa Rica
Dasypodidae	*Cabassous centralis*	Costa Rica
	Cabassous tatouay =474	Uruguay
RODENTIA		
Sciuridae	*Epixerus ebii*	Ghana
	Marmota caudata	India/Inde
	Marmota himalayana	India/Inde
	Sciurus deppei	Costa Rica
Anomaluridae	*Anomalurus beecrofti*	Ghana
	Anomalurus derbianus	Ghana
	Anomalurus pelii	Ghana
	Idiurus macrotis	Ghana
Hystricidae	*Hystrix cristata*	Ghana
Erethizontidae	*Sphiggurus mexicanus* =475	Honduras
	Sphiggurus spinosus =475	Uruguay
Agoutidae	*Agouti paca* =476	Honduras

Dasyproctidae	*Dasyprocta punctata*	Honduras
CARNIVORA		
Canidae	*Canis aureus*	India/Inde
	Vulpes bengalensis	India/Inde
	Vulpes vulpes griffithi	India/Inde
	Vulpes vulpes montana	India/Inde
	Vulpes vulpes pusilla =477	India/Inde
Procyonidae	*Bassaricyon gabbii*	Costa Rica
	Bassariscus sumichrasti	Costa Rica
	Nasua narica =478	Honduras
	Nasua nasua solitaria	Uruguay
	Potos flavus	Honduras
Mustelidae	*Eira barbara*	Honduras
	Galictis vittata =479	Costa Rica
	Martes flavigula	India/Inde
	Martes foina intermedia	India/Inde
	Martes gwatkinsii =480	India/Inde
	Mellivora capensis	Botswana, Ghana
	Mustela altaica	India/Inde
	Mustela erminea ferghanae	India/Inde
	Mustela kathiah	India/Inde
	Mustela sibirica	India/Inde
Viverridae	*Arctictis binturong*	India/Inde
	Civettictis civetta =481	Botswana
	Paguma larvata	India/Inde
	Paradoxurus hermaphroditus	India/Inde
	Paradoxurus jerdoni	India/Inde
	Viverra civettina =482	India/Inde
	Viverra zibetha	India/Inde
	Viverricula indica	India/Inde
Herpestidae	*Herpestes brachyurus fuscus* =484	India/Inde
	Herpestes edwardsii	India/Inde
	Herpestes javanicus auropunctatus =483	India/Inde
	Herpestes smithii	India/Inde
	Herpestes urva	India/Inde
	Herpestes vitticollis	India/Inde
Hyaenidae	*Proteles cristatus*	Botswana
Odobenidae	*Odobenus rosmarus*	Canada
ARTIODACTYLA		
Tragulidae	*Hyemoschus aquaticus*	Ghana
Cervidae	*Cervus elaphus barbarus*	Tunisia/Tunisie
	Mazama americana cerasina	Guatemala
	Odocoileus virginianus mayensis	Guatemala
Bovidae	*Antilope cervicapra*	Nepal/Népal
	Bubalus arnee =485	Nepal/Népal
	Damaliscus lunatus	Ghana

	Gazella cuvieri	Tunisia/Tunisie
	Gazella dorcas	Tunisia/Tunisie
	Gazella leptoceros	Tunisia/Tunisie
	Tetracerus quadricornis	Nepal/Népal
	Tragelaphus eurycerus =486	Ghana
	Tragelaphus spekii	Ghana

AVES

CICONIIFORMES

Ardeidae	*Ardea goliath*	Ghana
	Bubulcus ibis =487	Ghana
	Casmerodius albus =488	Ghana
	Egretta garzetta	Ghana
Ciconiidae	*Ephippiorhynchus senegalensis*	Ghana
	Leptoptilos crumeniferus	Ghana
Threskiornithidae	*Bostrychia hagedash* =489	Ghana
	Bostrychia rara =490	Ghana
	Threskiornis aethiopicus	Ghana

ANSERIFORMES

Anatidae	*Alopochen aegyptiacus*	Ghana
	Anas acuta	Ghana
	Anas capensis	Ghana
	Anas clypeata =491	Ghana
	Anas crecca	Ghana
	Anas penelope	Ghana
	Anas querquedula	Ghana
	Aythya nyroca =492	Ghana
	Cairina moschata	Honduras
	Dendrocygna autumnalis	Honduras
	Dendrocygna bicolor =493	Ghana, Honduras
	Dendrocygna viduata	Ghana
	Nettapus auritus	Ghana
	Plectropterus gambensis	Ghana
	Pteronetta hartlaubii =494	Ghana

FALCONIFORMES

Cathartidae	*Sarcoramphus papa*	Honduras

GALLIFORMES

Cracidae	*Crax alberti*	Colombia/Colombie
	Crax daubentoni	Colombia/Colombie
	Crax globulosa	Colombia/Colombie
	Crax rubra	Colombia/Colombie, Costa Rica, Guatemala, Honduras
	Ortalis vetula	Guatemala, Honduras
	Pauxi pauxi =495	Colombia/Colombie
	Penelope purpurascens	Honduras
	Penelopina nigra	Guatemala

Phasianidae	*Agelastes meleagrides*	Ghana
	Agriocharis ocellata	Guatemala
	Arborophila charltonii	Malaysia/Malasia/Malaisie
	Arborophila orientalis =496	Malaysia/Malasia/Malaisie
	Caloperdix oculea	Malaysia/Malasia/Malaisie
	Lophura erythrophthalma	Malaysia/Malasia/Malaisie
	Lophura ignita	Malaysia/Malasia/Malaisie
	Melanoperdix nigra	Malaysia/Malasia/Malaisie
	Polyplectron inopinatum	Malaysia/Malasia/Malaisie
	Rhizothera longirostris	Malaysia/Malasia/Malaisie
	Rollulus rouloul	Malaysia/Malasia/Malaisie
	Tragopan satyra	Nepal/Népal
CHARADRIIFORMES		
Burhinidae	*Burhinus bistriatus*	Guatemala
COLUMBIFORMES		
Columbidae	*Columba guinea*	Ghana
	Columba iriditorques =497	Ghana
	Columba livia	Ghana
	Columba mayeri =498	Mauritius/Mauricio/
Maurice		
	Columba unicincta	Ghana
	Oena capensis	Ghana
	Streptopelia decipiens	Ghana
	Streptopelia roseogrisea	Ghana
	Streptopelia semitorquata	Ghana
	Streptopelia senegalensis	Ghana
	Streptopelia turtur	Ghana
	Streptopelia vinacea	Ghana
	Treron calva =499	Ghana
	Treron waalia	Ghana
	Turtur abyssinicus	Ghana
	Turtur afer	Ghana
	Turtur brehmeri =500	Ghana
	Turtur tympanistria =501	Ghana
PSITTACIFORMES		
Psittacidae	*Psittacula krameri*	Ghana
CUCULIFORMES		
Musophagidae	*Corythaeola cristata*	Ghana
	Crinifer piscator	Ghana
	Musophaga violacea	Ghana
PICIFORMES		
Capitonidae	*Semnornis ramphastinus*	Colombia/Colombie
Ramphastidae	*Baillonius bailloni*	Argentina/Argentine
	Pteroglossus castanotis	Argentina/Argentine
	Ramphastos dicolorus	Argentina/Argentine
	Selenidera maculirostris	Argentina/Argentine

PASSERIFORMES

Cotingidae	*Cephalopterus ornatus*	Colombia/Colombie
	Cephalopterus penduliger	Colombia/Colombie
Muscicapidae	*Bebrornis rodericanus*	Mauritius/Mauricio/Maurice
	Terpsiphone bourbonnensis =502	Mauritius/Mauricio/Maurice
Fringillidae	*Serinus canicapillus* =503	Ghana
	Serinus leucopygius	Ghana
	Serinus mozambicus	Ghana
Estrildidae	*Amadina fasciata*	Ghana
	Amandava subflava =504	Ghana
	Estrilda astrild	Ghana
	Estrilda caerulescens	Ghana
	Estrilda melpoda	Ghana
	Estrilda troglodytes	Ghana
	Lagonosticta rara	Ghana
	Lagonosticta rubricata	Ghana
	Lagonosticta rufopicta	Ghana
Estrildidae (cont.)	*Lagonosticta senegala*	Ghana
	Lagonosticta vinacea =505	Ghana
	Lonchura bicolor =506	Ghana
	Lonchura cantans =507	Ghana
	Lonchura cucullata =506	Ghana
	Lonchura fringilloides =506	Ghana
	Mandingoa nitidula =508	Ghana
	Nesocharis capistrata	Ghana
	Nigrita bicolor	Ghana
	Nigrita canicapilla	Ghana
	Nigrita fusconota	Ghana
	Nigrita luteifrons	Ghana
	Ortygospiza atricollis	Ghana
	Parmoptila rubrifrons =509	Ghana
	Pholidornis rushiae	Ghana
	Pyrenestes ostrinus =510	Ghana
	Pytilia hypogrammica	Ghana
	Pytilia phoenicoptera	Ghana
	Spermophaga haematina	Ghana
	Uraeginthus bengalus =511	Ghana
Ploceidae	*Amblyospiza albifrons*	Ghana
	Anaplectes rubriceps =512	Ghana
	Anomalospiza imberbis	Ghana
	Bubalornis albirostris	Ghana
	Euplectes afer	Ghana
	Euplectes ardens =513	Ghana
	Euplectes franciscanus =514	Ghana
	Euplectes hordeaceus	Ghana
	Euplectes macrourus =515	Ghana
	Malimbus cassini	Ghana
	Malimbus malimbicus	Ghana
	Malimbus nitens	Ghana
	Malimbus rubricollis	Ghana
	Malimbus scutatus	Ghana
	Pachyphantes superciliosus =516	Ghana
	Passer griseus	Ghana

	Petronia dentata	Ghana
	Plocepasser superciliosus	Ghana
	Ploceus albinucha	Ghana
	Ploceus aurantius	Ghana
	Ploceus cucullatus =517	Ghana
	Ploceus heuglini	Ghana
	Ploceus luteolus =518	Ghana
	Ploceus melanocephalus =519	Ghana
	Ploceus nigerrimus	Ghana
	Ploceus nigricollis	Ghana
	Ploceus pelzelni	Ghana
	Ploceus preussi	Ghana
	Ploceus tricolor	Ghana
	Ploceus vitellinus =520	Ghana
	Quelea erythrops	Ghana
	Sporopipes frontalis	Ghana
	Vidua chalybeata =521	Ghana
	Vidua interjecta	Ghana
	Vidua larvaticola	Ghana
	Vidua macroura	Ghana
	Vidua orientalis =522	Ghana
	Vidua raricola	Ghana
	Vidua togoensis	Ghana
	Vidua wilsoni	Ghana
REPTILIA		
TESTUDINATA		
Trionychidae	*Trionyx triunguis*	Ghana
Pelomedusidae	*Pelomedusa subrufa*	Ghana
	Pelusios adansonii	Ghana
	Pelusios castaneus	Ghana
	Pelusios gabonensis =523	Ghana
	Pelusios niger	Ghana
SERPENTES		
Colubridae	*Atretium schistosum*	India/Inde
	Cerberus rhynchops	India/Inde
	Xenochrophis piscator =524	India/Inde
Elapidae	*Micrurus diastema*	Honduras
	Micrurus nigrocinctus	Honduras
Viperidae	*Agkistrodon bilineatus*	Honduras
	Bothrops asper	Honduras
	Bothrops nasutus	Honduras
	Bothrops nummifer	Honduras
	Bothrops ophryomegas	Honduras
	Bothrops schlegelii	Honduras
	Crotalus durissus	Honduras
	Vipera russellii	India/Inde

FLORA

GNETACEAE	*Gnetum montanum* #1	Nepal/Népal
MAGNOLIACEAE	*Magnolia liliifera* var. *obovata* =525 #1	Nepal/Népal
MELIACEAE	*Swietenia macrophylla* #5	Bolivia/Bolivie +218, Brazil/Brasil/Brésil +219, Costa Rica +220, Mexico/México/Mexique +221
PAPAVERACEAE	*Meconopsis regia* #1	Nepal/Népal
PODOCARPACEAE	*Podocarpus neriifolius* #1	Nepal/Népal
TETRACENTRACEAE	*Tetracentron sinense* #1	Nepal/Népal

MOU BETWEEN CITES AND WCO

Memorandum of Understanding Between the World Customs Organization and the CITES Secretariat

RECOGNIZING that offences against Customs laws, particularly smuggling of species included in the CITES Annexes, are prejudicial to the planet's natural heritage and to the economic interests of States,

RECOGNIZING also that international co-operation is essential to protect special wild fauna and flora,

NOTING that the increase in illicit trafficking of species of fauna and flora included in the CITES Annexes necessitates that Customs authorities intensity their surveillance and control measures.

AWARE that the role of the Customs is vital in the fight against the illicit trade in species of animals and plants.

TAKING account of Conference Resolution 9.8 adopted at the Ninth Conference of the CITES contracting Parties (Fort Lauderdale, November 1994),

HOLDING that increased co-operation between nature conservation authorities and Customs authorities will increase the effectiveness of Customs controls in the areas covered by the CITES,

HOLDING also that co-operation would be of benefit to all parties in legitimate trade.

THE WORLD CUSTOMS ORGANISATION[1] AND THE CITES SECRETARIAT have agreed as follows:

(1) In order to strengthen the co-operation between the two Organizations, the WCO Secretariat and the CITES Secretariat will send each other any general information of common interest;

(2) The two Secretariats will invite each other as observers to meetings of common interest that they organize

(3) To combat the illicit traffic in species listed in the CITES Annexes, the two Secretariats will jointly draft and implement, each in its own field of competence, measures to improve co-operation and information exchange between customs authorities and CITES management bodies, particularly for the purpose detecting consignments likely to contain protected species whose trade is regulated;

(4) The CITES Secretariat will provide the WCO Secretariat with information to help Customs services better understand the importance of issues related to the trade in fauna and flora and the procedures applicable to that type of trade;

(5) The WCO Secretariat will provide the CITES Secretariat with information to give nature conservation services a better understanding of Customs authorities' tasks and their problems;

(6) The two Secretariats will jointly devise publications to raise the awareness of and inform the services responsible for combating the illicit trade in species of wild fauna and flora;

(7) The two Secretariats will jointly devise training materials on combating the illicit trade in animals and plants;

(8) Within the limits of their respective resources, the two Secretariats will organize joint training activities for Customs officers and other enforcement officers;

(9) The two Secretariats will exchange training activity programmes and, provided there is interest, will endeavour to ensure that Customs issues are tackled in CITES training, and that CITES issues are tackled in Customs training. Subject to the resources available, the Secretariats will do their utmost to ensure that trainers from one Secretariat participate in the training activities of the other;

(10) The two Secretariats will make a f feasibility study and will set up a joint database on CITES offences.

[1] World Customs Organization (WCO) is the working name of the Customs Co-operation Council (CCC).

The information contained there in will only be transmitted to other organizations or administrations with the consent of the Secretariat that provides the data, and subject to its own procedures.

Done at Brussels, on 4 July 1996.

Signed by:

I. Topkov
Secretary-General
CITES

Signed by:

J.W. Shaver
Secretary-General
World Customs Organization

LUSAKA AGREEMENT

Lusaka Agreement on Co-Operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora

TEXT OF THE AGREEMENT

PREAMBLE

The Parties to this Agreement,

Conscious that the conservation of wild fauna and flora is essential to the overall maintenance of Africa's biological diversity and that wild fauna and flora are essential to the sustainable development of Africa,

Conscious also of the need to reduce and ultimately eliminate illegal trade in wild fauna and flora,

Recognising that the intense poaching that has resulted in severe depletion of certain wildlife populations in African States has been caused by illegal trade, and that poaching will not be curtailed until such illegal trade is eliminated,

Noting that illegal trade in wild fauna and flora has been made more sophisticated through the use of superior technology in transboundary transactions and should be addressed through commensurate national, regional and international measures,

Recalling the provisions of the African Convention on the Conservation of Nature and Natural Resources (Algiers, 1968), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington, 1973), and the Convention on Biological Diversity (Rio de Janeiro, 1992),

Affirming that States are responsible for the conservation of their wild fauna and flora,

Recognising the need for co-operation among States in law enforcement to reduce and ultimately eliminate illegal trade in wild fauna and flora,

Recognising also that sharing of information, training, experience and expertise among States is vital for effective law enforcement to reduce and ultimately eliminate illegal trade in wild fauna and flora,

Desirous of establishing close co-operation among themselves in order to reduce and ultimately eliminate illegal trade in wild fauna and flora,

HAVE AGREED AS FOLLOWS:

ARTICLE 1: DEFINITIONS

For the purposes of this Agreement:

"Agreement area" means the area comprised of the land, marine and coastal areas within the limits of national jurisdiction of the Parties to this Agreement and shall include their air space and internal waters.

"Biological diversity" means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

"Conservation" means the management of human use of organisms or ecosystems to ensure such use is sustainable; it also includes protection, maintenance, rehabilitation, restoration and enhancement.

"Country of original export" means the country where the specimens originated and from whose territory they depart or have departed.

"Country of re-export" means the country from whose territory specimens depart or have departed and that is not the country of origin of the specimens.

"Field Officer" means a member of a Government organisation, department or institution who is employed as a law enforcement officer with national law enforcement jurisdiction, and who is seconded to the Task Force.

"Governing Council" means the Governing Council established under Article 7 of this Agreement.

"Illegal trade" means any cross-border transaction, or any action in furtherance thereof, in violation of national laws of a Party to this Agreement for the protection of wild fauna and flora.

"National Bureau" means a governmental entity with

the competence encompassing law enforcement, designated or established by a Party to this Agreement under Article 6.

"Party" means a State for which this Agreement has entered into force.

"Specimen" means any animal or plant, alive or dead, as well as any derivative thereof, of any species of wild fauna and flora.

"Task Force" means the Task Force established under Article 5 of this Agreement.

"Wild fauna and flora" means wild species of animals and plants subject to the respective national laws of the Parties governing conservation, protection and trade.

ARTICLE 2: OBJECTIVE

The objective of this Agreement is to reduce and ultimately eliminate illegal trade in wild fauna and flora and to establish a permanent Task Force for this purpose.

ARTICLE 3: GEOGRAPHICAL SCOPE

This Agreement shall apply to the Agreement area as defined in Article 1.

ARTICLE 4: OBLIGATIONS OF THE PARTIES

1. The Parties shall, individually and/or jointly, take appropriate measures in accordance with this Agreement to investigate and prosecute cases of illegal trade.

2. Each Party shall co-operate with one another and with the Task Force to ensure the effective implementation of this Agreement.

3. Each Party shall provide the Task Force on a regular basis with relevant information and scientific data relating to illegal trade.

4. Each Party shall provide the Task Force with technical assistance relating to its operations, as needed by the Task Force.

5. Each Party shall accord to the Director, Field Officers and the Intelligence Officer of the Task Force while engaged in carrying out the functions of the Task Force in accordance with paragraph 9 of Article 5, the relevant privileges and immunities, including those specified under paragraph 11 of Article 5.

6. Each Party shall protect information designated as confidential that becomes available to any of the Parties in connection with the implementation of this Agreement. Such information shall be used exclusively for the purposes of implementing this Agreement.

7. Each Party shall encourage public awareness campaigns aimed at enlisting public support for the objective of this Agreement, and the said campaigns shall be so designed as to encourage public reporting of illegal trade.

8. Each Party shall adopt and enforce such legislative and administrative measures as may be necessary for the purposes of giving effect to this Agreement.

9. Each Party shall return to the country of original export or country of re-export any specimen of species of wild fauna and flora confiscated in the course of illegal trade, provided that:

   (a) the country of original export of the specimen(s) can be determined;

   or

   (b) the country of re-export is able to show evidence that the specimen(s) re-exported were imported by that country in accordance with the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora governing import and re-export; and

   (c) the costs of returning such specimens of wild fauna and flora are borne by the country receiving the specimen(s), unless there is an alternative offer to bear costs to which both the Party returning the specimen(s) and the Party receiving the specimen(s) agree.

10. Each Party shall pay its contribution to the budget of the Task Force as determined by the Governing Council.

11. Each Party shall report to the Governing Council on implementation of its obligations under this Agreement at intervals as determined by the Governing Council.

ARTICLE 5: TASK FORCE

1. A Task Force is hereby established to be known as the Task Force for Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora.

2. The Task Force shall be composed of a Director, Field Officers and an Intelligence Officer and such other staff as may be decided by the Governing Council.

3. The Task Force shall include at least one Field Officer seconded by each Party and approved by the Governing Council. Each Field Officer shall be appointed to serve for a term of three years, or such other term as may be determined by the Governing Council. Upon the recommendation of the Director made in consultation with the Party concerned, the Governing Council may shorten or increase the term of other Field Officers.

4. The Director shall be appointed by the Governing Council from among the Field Officers.

5. The Director and other Field Officers shall retain their national law enforcement authority during their time of service with the Task Force.

6. The appointment of the Director, other Field Officers and the Intelligence Officer, as well as their terms of service, shall be decided in accordance with rules established by the Governing Council. The terms and conditions of service of other support staff as deemed necessary for the functioning of the Task Force shall also be decided by the Governing Council.

7. The Director shall be the Chief Executive Officer of the Task Force and shall be accountable to the Governing Council and responsible for:

   (a) appointing other support staff as deemed necessary for the functioning of the Task Force;

   (b) commanding and coordinating the work of the Task Force;

   (c) preparing budgets annually or as required by the Governing Council;

   (d) implementing policies and decisions agreed by the Governing Council;

   (e) providing reports annually and as required by the Governing Council;

   (f) arranging for and servicing meetings of the Governing Council; and

   (g) performing such other functions as may be determined by the Governing Council.

8. The Task Force shall possess international legal personality. It shall have in the territory of each Party the legal capacity required for the performance of its functions under this Agreement. The Task Force shall in the exercise of its legal personality be represented by the Director.

9. The functions of the Task Force shall be:

   (a) to facilitate co-operative activities among the National Bureaus in carrying out investigations pertaining to illegal trade;

   (b) to investigate violations of national laws pertaining to illegal trade, at the request of theNational Bureaus or with the consent of the Parties concerned, and to present to them evidence gathered during such investigations;

   (c) to collect, process and disseminate information on activities that pertain to illegal trade, including establishing and maintaining databases;

   (d) to provide, upon request of the Parties concerned, available information related to the return to the country of original export, or country of re-export, of confiscated wild fauna and flora; and

   (e) to perform such other functions as may be determined by the Governing Council.

10. In carrying out its functions, the Task Force, when necessary and appropriate, may use undercover operations, subject to the consent of the Parties concerned and under conditions agreed with the said Parties.

11. For the purposes of paragraph 9 of this Article, the Director, other Field Officers and the Intelligence Officer of the Task Force shall enjoy, in connection with their official duties and strictly within the limits of their official capacities, the following privileges and immunities:

   (a) immunity from arrest, detention, search and seizure, and legal process of any kind in respect of words spoken or written and all acts performed by them; they shall continue to be so immune after the completion of their functions as officials of the Task Force;

   (b) inviolability of all official papers, documents and equipment;

   (c) exemption from all visa requirements and entry restrictions;

   (d) protection of free communication to and from the headquarters of the Task Force;

   (e) exemption from currency or exchange restrictions as is accorded representatives of for-

eign governments on temporary official missions; and

(f) such other privileges and immunities as may be determined by the Governing Council.

12. Privileges and immunities are granted to the Director, other Field Officers and the Intelligence Officer in the interests of the Task Force and not for the personal benefit of the individuals themselves. The Governing Council shall have the right and the duty to waive the immunity of any official in any case where, in the opinion of the Governing Council, the immunity would impede the course of justice and it can be waived without prejudice to the interests of the Task Force.

13. The Task Force shall not undertake or be involved in any intervention, or activities of a political, military, religious or racial character.

ARTICLE 6: NATIONAL BUREAU

1. To facilitate the implementation of this Agreement, each Party shall:

(a) designate or establish a governmental entity as its National Bureau;

(b) inform the Depositary, within two months of the date of the entry into force of the Agreement for this Party, the entity it has designated or established as its National Bureau; and

(c) inform the Depositary within one month of any decision to change the designation or establishment of its National Bureau.

2. For the purposes of this Agreement, the functions of the National Bureaus shall be to:

(a) provide to and receive from the Task Force information on illegal trade; and

(b) coordinate with the Task Force on investigations that involve illegal trade.

ARTICLE 7: GOVERNING COUNCIL

1. A Governing Council consisting of the Parties to this Agreement is hereby established to be known as the Governing Council for Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora.

2. Each Party shall send a delegation to the meetings of the Governing Council and shall be represented on the Governing Council by a Minister or alternate who shall be the head of the delegation. Because of the technical nature of the Task Force, Parties should endeavour to include the following in their delegations:

(a) high ranking officials dealing with wildlife law enforcement affairs;

(b) officials whose normal duties are connected with the activities of the Task Force; and

(c) specialists in the subjects on the agenda.

3. The first meeting of the Governing Council shall be convened by the Executive Director of the United Nations Environment Programme not later than three months after the entry into force of this Agreement. Thereafter, ordinary meetings of the Governing Council shall be held at regular intervals to be determined by the Council at its first meeting.

4. Meetings of the Governing Council will normally be held at the Seat of the Task Force unless the Council decides otherwise.

5. Extraordinary meetings of the Governing Council shall be held at such times as may be determined by the Council, or at the written request of any Party, provided that such request is supported by at least one third of the Parties within two months of the request being communicated to them by the Director of the Task Force.

6. At its first meeting, the Governing Council shall:

(a) by consensus elect its Chairperson and adopt rules of procedure, including decision-making procedures, which may include specified majorities required for adoption of particular decisions;

(b) decide the Seat of the Task Force;

(c) consider and approve the appointment of the Director, other Field Officers and the Intelligence Officer and decide upon their terms and conditions of service as well as the terms and conditions of service of the supporting staff;

(d) adopt terms of reference and financial and administrative rules of the Task Force; and

(e) consider and approve an initial budget to establish and operate the Task Force and agree upon the contributions of each Party to the budget.

7. At ordinary meetings the Governing Council shall approve a budget for the Task Force and agree upon the contributions of each Party to the budget.

8. The Governing Council shall determine the general policies of the Task Force and, for this purpose, shall:

   (a) consider the reports submitted by the Director; and

   (b) upon expiry, termination or renewal of their terms of service, consider and approve the appointment of the Director, other Field Officers and the Intelligence Officer.

9. The Governing Council shall:

   (a) keep under review the implementation of this Agreement;

   (b) consider and undertake any additional action that may be deemed necessary for the achievement of the objective of this Agreement in the light of experience gained in its operation; and

   (c) consider and adopt, as required, in accordance with Article 11, amendments to this Agreement.

ARTICLE 8: FINANCIAL PROVISIONS

1. There shall be a budget for the Task Force.

2. The financial management of the Task Force shall be governed by the financial rules adopted by the Governing Council.

3. The Governing Council shall determine the mode of payment and currencies of contributions by the Parties to the budget of the Task Force. Other resources of the Task Force may include extra budgetary resources such as grants, donations, funds for projects and programmes and technical assistance.

4. The Parties undertake to pay annually their agreed contributions to the budget of the Task Force by a specified date as determined by the Governing Council.

5. The Unit of Account in which the budget will be prepared shall be determined by the Governing Council.

ARTICLE 9: SEAT

1. The Seat of the Task Force shall be determined by the Governing Council pursuant to an offer made by a Party.

2. The Government of the Party in whose territory the Seat of the Task Force shall be located and the Director acting on behalf of the Task Force shall conclude a headquarters agreement relating to the legal capacity of the Task Force and the privileges and immunities of the Task Force, Director, other Field Officers and the Intelligence Officer, which privileges and immunities shall not be less than those accorded to diplomatic missions and their personnel in the host country, and including those privileges and immunities stipulated in paragraph 11 of Article 5.

3. The Government aforementioned shall assist the Task Force in the acquisition of affordable accommodation for its use.

ARTICLE 10: SETTLEMENT OF DISPUTES

1. Any dispute concerning the interpretation or application of this Agreement which cannot be settled by negotiation, conciliation or other peaceful means may be referred by any Party thereto to the Governing Council.

2. Where the Parties fail to settle the dispute the matter shall be submitted to an arbitral body.

3. The Parties to the dispute shall appoint one arbitrator each; the arbitrators so appointed shall designate, by mutual consent, a neutral arbitrator as Chairperson who shall not be a national of any of the Parties to the dispute.

4. If any of the Parties does not appoint an arbitrator within three months of the appointment of the first arbitrator, or if the Chairperson has not been designated within three months of the matter being referred to arbitration, the Chairperson of the Governing Council shall designate the arbitrator or the Chairperson or both, as the case may be, within a further period of three months.

5. The arbitral body shall have jurisdiction to hear and determine any matter arising from a dispute.

6. The arbitral body shall determine its own rules of procedure.

7. The Parties to the dispute shall be bound by the arbitral decision.

ARTICLE 11: AMENDMENT

1. Amendments to the Agreement may be proposed by any Party and communicated in writing to the Director of the Task Force who shall transmit the proposals to all Parties. The Director shall also communicate proposed amendments to the signatories to this Agreement for information.

2. No proposal for amendment shall be considered by the Governing Council unless it is received by the Director at least one hundred and twenty days before the opening day of the meeting at which it is to be considered.

3. Amendments to the Agreement shall be adopted at a meeting of the Governing Council. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a two-third majority vote of the Parties present and voting at the meeting. Amendments shall take effect, with respect to the Parties, on the thirtieth day after their adoption by the Governing Council. Amendments adopted shall be notified to the Depositary forthwith.

ARTICLE 12: SIGNATURE, RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION

1. This Agreement shall be open for signature on 9 September 1994 by all African States at the Ministerial Meeting to conclude this Agreement in Lusaka, and thereafter from 12 September to 12 December 1994 at the Headquarters of the United Nations Environment Programme in Nairobi, and from 13 December 1994 to 13 March 1995 at the United Nations Headquarters in New York.

2. This Agreement shall be subject to ratification, acceptance or approval.

3. This Agreement shall remain open for accession by any African State from the day after the date on which the Agreement is closed for signature.

4. Instruments of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations.

ARTICLE 13: ENTRY INTO FORCE

1. This Agreement shall enter into force on the sixtieth day after the date of the deposit of the fourth instrument of ratification, acceptance, approval or accession.

2. For each Party which ratifies, accepts, approves or accedes to this Agreement after the deposit of the fourth instrument of ratification, acceptance, approval or accession, this Agreement shall enter into force on the sixtieth day after the date of deposit by such Party of its instrument of ratification, acceptance, approval or accession.

ARTICLE 14: WITHDRAWAL

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

2. Any such withdrawal shall take place upon the expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal provided, however, that any obligation incurred by the Party prior to its withdrawal shall remain valid for that Party.

ARTICLE 15: DEPOSITARY

1. The Secretary-General of the United Nations shall assume the functions of Depositary of this Agreement.

2. The Depositary shall notify all Parties to this Agreement of:

   (a) the deposit of instruments of ratification, acceptance, approval or accession in accordance with Article 12;

   (b) the designation or establishment of National Bureaus in accordance with Article 6;

   (c) the amendments adopted in accordance with Article 11; and

   (d) withdrawal in accordance with Article 14.

IN WITNESS WHEREOF the undersigned, being duly authorised thereto by their respective governments, have signed this Agreement.

DONE AT LUSAKA on this ninth day of September, one thousand nine hundred and ninety-four.

DATE OF ENTRY INTO FORCE tenth day of December, one thousand nine hundred and ninety-six.

THE VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER

The Vienna Convention for the Protection of The Ozone Layer

TEXT OF THE CONVENTION

PREAMBLE

The Parties to this Convention,

Aware of the potentially harmful impact on human health and the environment through modification of the ozone layer,

Recalling the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, and in particular principle 21, which provides that "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction",

Taking into account the circumstances and particular requirements of developing countries,

Mindful of the work and studies proceeding within both international and national organizations and, in particular, of the World Plan of Action on the Ozone Layer of the United Nations Environment Programme,

Mindful also of the precautionary measures for the protection of the ozone layer which have already been taken at the national and international levels,

Aware that measures to protect the ozone layer from modifications due to human activities require international co-operation and action, and should be based on relevant scientific and technical considerations,

Aware also of the need for further research and systematic observations to further develop scientific knowledge of the ozone layer and possible adverse effects resulting from its modification,

Determined to protect human health and the environment against adverse effects resulting from modifications of the ozone layer,

HAVE AGREED AS FOLLOWS:

ARTICLE I: DEFINITIONS

For the purposes of this Convention:

1. "The ozone layer" means the layer of atmospheric ozone above the planetary boundary layer.

2. "Adverse effects" means changes in the physical environment or biota, including changes in climate, which have significant deleterious effects on human health or on the composition, resilience and productivity of natural and managed ecosystems, or on materials useful to mankind.

3. "Alternative technologies or equipment" means technologies or equipment the use of which makes it possible to reduce or effectively eliminate emissions of substances which have or are likely to have adverse effects on the ozone layer.

4. "Alternative substances" means substances which reduce, eliminate or avoid adverse effects on the ozone layer.

5. "Parties" means, unless the text otherwise indicates, Parties to this Convention.

6. "Regional economic integration organization" means an organization constituted by sovereign States of a given region which has competence in respect of matters governed by this Convention or its protocols and has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned.

7. "Protocols" means protocols to this Convention.

ARTICLE 2: GENERAL OBLIGATIONS

1. The Parties shall take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer.

2. To this end the Parties shall, in accordance with the means at their disposal and their capabilities:

   (a) Co-operate by means of systematic observations, research and information exchange in order to better understand and assess the effects on human health and the environment from modification of the ozone layer;
   (b) Adopt appropriate legislative or administrative measures and co-operate in harmonizing appropriate policies to control, limit, reduce or prevent human activities under their jurisdiction or control should it be found that these activities have or are likely to have adverse effects resulting from modification or likely modification of the ozone layer;
   (c) Co-operate in the formulation of agreed measures, procedures and standards for the implementation of this Convention, with a view to the adoption of protocols and annexes;
   (d) Co-operate with competent international bodies to implement effectively this Convention and protocols to which they are party.

3. The provisions of this Convention shall in no way affect the right of Parties to adopt, in accordance with international law, domestic measures additional to those referred to in paragraphs 1 and 2 above, nor shall they affect additional domestic measures already taken by a Party, provided that these measures are not incompatible with their obligations under this Convention.

4. The application of this article shall be based on relevant scientific and technical considerations.

ARTICLE 3: RESEARCH AND SYSTEMATIC OBSERVATIONS

1. The Parties undertake, as appropriate, to initiate and co-operate in, directly or through competent international bodies, the conduct of research and scientific assessments on:

   (a) The physical and chemical processes that may affect the ozone layer;
   (b) The human health and other biological effects deriving from any modifications of the ozone layer, particularly those resulting from changes in ultra-violet solar radiation having biological effects (UV-B);
   (c) Climatic effects deriving from any modifications of the ozone layer;
   (d) Effects deriving from any modifications of the ozone layer and any consequent change in UV-B radiation on natural and synthetic materials useful to mankind;
   (e) Substances, practices, processes and activities that may affect the ozone layer, and their cumulative effects;
   (f) Alternative substances and technologies;
   (g) Related socio-economic matters; and as further elaborated in annexes I and II.

2. The Parties undertake to promote or establish, as appropriate, directly or through competent international bodies and taking fully into account national legislation and relevant ongoing activities at both the national and international levels, joint or complementary programmes for systematic observation of the state of the ozone layer and other relevant parameters, as elaborated in annex I.

3. The Parties undertake to co-operate, directly or through competent international bodies, in ensuring the collection, validation and transmission of research and observational data through appropriate world data centers in a regular and timely fashion.

ARTICLE 4: CO-OPERATION IN THE LEGAL, SCIENTIFIC, AND TECHNICAL FIELDS

1. The Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this Convention as further elaborated in annex II. Such information shall be supplied to bodies agreed upon by the Parties. Any such body receiving information regarded as confidential by the supplying Party shall ensure that such information is not disclosed and shall aggregate it to protect its confidentiality before it is made available to all Parties.

2. The Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account in particular the needs of the developing countries, in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge. Such co-operation shall be carried out particularly through:

   (a) Facilitation of the acquisition of alternative technologies by other Parties;
   (b) Provision of information on alternative technologies and equipment, and supply of special manuals or guides to them;
   (c) The supply of necessary equipment and facilities for research and systematic observations;
   (d) Appropriate training of scientific and technical personnel.

ARTICLE 5: TRANSMISSION OF INFORMATION

The Parties shall transmit, through the secretariat, to the Conference of the Parties established under article 6 information on the measures adopted by them in implementation of this Convention and of protocols to which they are party in such form and at such intervals as the meetings of the parties to the relevant instruments may determine.

ARTICLE 6: CONFERENCE OF THE PARTIES

1. A Conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the secretariat designated on an interim basis under article 7 not later than one year after entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting.

2. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to them by the secretariat, it is supported by at least one third of the Parties.

3. The Conference of the Parties shall by consensus agree upon and adopt rules of procedure and financial rules for itself and for any subsidiary bodies it may establish, as well as financial provisions governing the functioning of the secretariat.

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

   (a) Establish the form and the intervals for transmitting the information to be submitted in accordance with article 5 and consider such information as well as reports submitted by any subsidiary body;
   (b) Review the scientific information on the ozone layer, on its possible modification and on possible effects of any such modification;
   (c) Promote, in accordance with article 2, the harmonization of appropriate policies, strategies and measures for minimizing the release of substances causing or likely to cause modification of the ozone layer, and make recommendations on any other measures relating to this Convention;
   (d) Adopt, in accordance with articles 3 and 4, programmes for research, systematic observations, scientific and technological co-operation, the exchange of information and the transfer of technology and knowledge;
   (e) Consider and adopt, as required, in accordance with articles 9 and 10, amendments to this Convention and its annexes;
   (f) Consider amendments to any protocol, as well as to any annexes thereto, and, if so decided, recommend their adoption to the parties to the protocol concerned;
   (g) Consider and adopt, as required, in accordance with article 10, additional annexes to this Convention;
   (h) Consider and adopt, as required, protocols in accordance with article 8;
   (i) Establish such subsidiary bodies as are deemed necessary for the implementation of this Convention;
   (j) Seek, where appropriate, the services of competent international bodies and scientific committees, in particular the World Meteorological Organization and the World Health Organization as well as the Co-ordinating Committee on the Ozone Layer, in scientific research, systematic observations and other activities pertinent to the objectives of this Convention, and make use as appropriate of information from these bodies and committees;
   (k) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

5. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not party to this Convention, may be represented at meetings of the Conference of the Parties by observers. Any body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to the protection of the ozone layer which has informed the secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one-third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

ARTICLE 7: SECRETARIAT

1. The functions of the secretariat shall be:

   (a) To arrange for and service meetings provided for in articles 6, 8, 9 and 10;
   (b) To prepare and transmit reports based upon information received in accordance with articles 4 and 5, as well as upon information derived from meetings of subsidiary bodies

established under article 6;

(c) To perform the functions assigned to it by any protocol;

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

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

(f) To perform such other functions as may be determined by the Conference of the Parties.

2. The secretariat functions will be carried out on an interim basis by the United Nations Environment Programme until the completion of the first ordinary meeting of the Conference of the Parties held pursuant to article 6. At its first ordinary meeting, the Conference of the Parties shall designate the secretariat from amongst those existing competent international organizations which have signified their willingness to carry out the secretariat functions under this Convention.

ARTICLE 8: ADOPTION OF PROTOCOLS

1. The Conference of the Parties may at a meeting adopt protocols pursuant to Article 2.
2. The text of any proposed protocol shall be communicated to the parties by the secretariat at least six months before such a meeting.

ARTICLE 9: AMENDMENTS OF THE CONVENTION OR PROTOCOLS

1. Any Party may propose amendments to this Convention or to any protocol. Such amendments shall take due account, inter alia, of relevant scientific and technical considerations.

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

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

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

5. Ratification, approval or acceptance of amendments shall be notified to the Depositary in writing. Amendments adopted in accordance with paragraphs 3 or 4 above shall enter into force between parties having accepted them on the ninetieth day after the receipt by the Depositary of notification of their ratification, approval or acceptance by at least three-fourths of the Parties to this Convention or by at least two-thirds of the parties to the protocol concerned, except as may otherwise be provided in such protocol. Thereafter the amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval or acceptance of the amendments.

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

ARTICLE 10: ADOPTION AND AMENDMENT OF ANNEXES

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

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

(a) Annexes to this Convention shall be proposed and adopted according to the procedure laid down in article 9, paragraphs 2 and

3, while annexes to any protocol shall be proposed and adopted according to the procedure laid down in article 9, paragraphs 2 and 4;

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

(c) On the expiry of six months from the date of the circulation of the communication by the Depositary, the annex shall become effective for all Parties to this Convention or to any protocol concerned which have not submitted a notification in accordance with the provision of subparagraph (b) above.

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

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

ARTICLE 11: SETTLEMENT OF DISPUTES

1. In the event of a dispute between Parties concerning the interpretation or application of this Convention, the parties concerned shall seek solution by negotiation.

2. If the parties concerned cannot reach agreement by negotiation, they may jointly seek the good officers of, or request mediation by, a third party.

3. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a State or regional economic integration organization may declare in writing to the Depositary that for a dispute not resolved in accordance with paragraph 1 or paragraph 2 above, it accepts one or both of the following means of dispute settlement as compulsory:

(a) Arbitration in accordance with procedures to be adopted by the Conference of the Parties at its first ordinary meeting;

(b) Submission of the dispute to the International Court of Justice.

4. If the parties have not, in accordance with paragraph 3 above, accepted the same or any procedure, the dispute shall be submitted to conciliation in accordance with paragraph 5 below unless the parties otherwise agree.

5. A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall be composed of an equal number of members appointed by each party concerned and a chairman chosen jointly by the members appointed by each party. The commission shall render a final and recommendatory award, which the parties shall consider in good faith.

6. The provisions of this Article shall apply with respect to any protocol except as provided in the protocol concerned.

ARTICLE 12: SIGNATURE

This Convention shall be open for signature by States and by regional economic integration organizations at the Federal Ministry for Foreign Affairs of the Republic of Austria in Vienna from 22 March 1985 to 21 September 1985, and at United Nations Headquarters in New York from 22 September 1985 to 21 March 1986.

ARTICLE 13: RATIFICATION, ACCEPTANCE OR APPROVAL

1. This Convention and any protocol shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. Instruments of ratification, acceptance or approval shall be deposited with the Depositary.

2. Any organization referred to in paragraph 1 above which becomes a Party to this Convention or any protocol without any of its member States being a Party shall be bound by all the obligations under the Convention or the protocol, as the case may be. In the case of such organizations, one or more of whose member States is a Party to the Convention or relevant protocol, the organization and its member States shall decide on their respective responsibilities for the performance of

their obligation under the Convention or protocol, as the case may be. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention or relevant protocol concurrently.

3. In their instruments of ratification, acceptance or approval, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

ARTICLE 14: ACCESSION

1. This Convention and any protocol shall be open for accession by States and by regional economic integration organizations from the date on which the Convention or the protocol concerned is closed for signature. The instruments of accession shall be deposited with the Depositary.

2. In their instruments of accession, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

3. The provisions of article 13, paragraph 2, shall apply to regional economic integration organizations which accede to this Convention or any protocol.

ARTICLE 15: RIGHT TO VOTE

1. Each Party to this Convention or to any protocol shall have one vote.

2. Except as provided for in paragraph 1 above, regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to the Convention or the relevant protocol. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

ARTICLE 16: RELATIONSHIP BETWEEN THE CONVENTION AND ITS PROTOCOLS

1. A State or a regional economic integration organization may not become a party to a protocol unless it is, or becomes at the same time, a Party to the Convention.

2. Decisions concerning any protocol shall be taken only by the parties to the protocol concerned.

ARTICLE 17: ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the twentieth instrument of ratification, acceptance, approval or accession.

2. Any protocol, except as otherwise provided in such protocol, shall enter into force on the ninetieth day after the date of deposit of the eleventh instrument of ratification, acceptance or approval of such protocol or accession thereto.

3. For each Party which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the twentieth instrument of ratification, acceptance, approval or accession, it shall enter into force on the ninetieth day after the date of deposit by such Party of its instrument of ratification, acceptance, approval or accession.

4. Any protocol, except as otherwise provided in such protocol, shall enter into force for a party that ratifies, accepts or approves that protocol or accedes thereto after its entry into force pursuant to paragraph 2 above, on the ninetieth day after the date on which that party deposits its instrument of ratification, acceptance, approval or accession, or on the date which the Convention enters into force for that Party, whichever shall be the later.

5. For the purposes of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

ARTICLE 18: RESERVATIONS

No reservations may be made to this Convention.

ARTICLE 19: WITHDRAWAL

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

2. Except as may be provided in any protocol, at any time after four years from the date on which such protocol has entered into force for a party, that party may withdraw from the protocol by giving written notification to the Depositary.

3. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

4. Any Party which withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it is party.

ARTICLE 20: DEPOSITARY

1. The Secretary-General of the United Nations shall assume the functions of depositary of this Convention and any protocols.

2. The Depositary shall inform the Parties, in particular, of:
   (a) The signature of this Convention and of any protocol, and the deposit of instruments of ratification, acceptance, approval or accession in accordance with articles 13 and 14;
   (b) The date on which the Convention and any protocol will come into force in accordance with article 17;
   (c) Notifications of withdrawal made in accordance with article 19;
   (d) Amendments adopted with respect to the Convention and any protocol, their acceptance by the parties and their date of entry into force in accordance with article 9;
   (e) All communications relating to the adoption and approval of annexes and to the amendment of annexes in accordance with article 10;
   (f) Notifications by regional economic integration organizations of the extent of their competence with respect to matters governed by this Convention and any protocols, and of any modifications thereof.
   (g) Declarations made in accordance with article 11, paragraph 3.

ARTICLE 21: AUTHENTIC TEXTS

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

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

DONE AT VIENNA ON THE 22ND DAY OF MARCH 1985

DATE OF ENTRY INTO FORCE 22 SEPTEMBER 1988

ANNEX I

RESEARCH AND SYSTEMATIC OBSERVATIONS

1. The Parties to the Convention recognize that the major scientific issues are:
   (a) Modification of the ozone layer which would result in a change in the amount of solar ultra-violet radiation having biological effects (UV-B) that reaches the Earth's surface and the potential consequences for human health, for organisms, ecosystems and materials useful to mankind;

   (b) Modification of the vertical distribution of ozone, which could change the temperature structure of the atmosphere and the potential consequences for weather and climate.

2. The Parties to the Convention, in accordance with article 3, shall co-operate in conducting research and systematic observations and in formulating recommendations for future research and observation in such areas as:
   (a) Research into the physics and chemistry of the atmosphere
   (i) Comprehensive theoretical models: further development of models which consider the interaction between radiative, dynamic and chemical processes; studies of the simultaneous effects of various man-made and naturally occurring species upon atmospheric ozone; interpretation of satellite and non-satellite measurement data sets; evaluation of trends in atmospheric and geophysical parameters, and the development of methods for attributing changes in these parameters to specific causes;
   (ii) Laboratory studies of: rate coefficients, absorption cross-sections and mechanisms of tropospheric and stratospheric chemical and photochemical processes; spectroscopic data to support field measurements in all relevant spectral regions;
   (iii) Field measurements: the concentration and fluxes of key source gases of both natural and anthropogenic origin; atmospheric dynamics studies; simultaneous measurements of photochemically-related species down to the planetary boundary layer, using in situ and remote sensing instruments; intercomparison of different sensors, including co-ordinated correlative measures for satellite instrumentation; three-dimensional fields of key atmospheric trace constituents, solar spectral flux and meteorological parameters;
   (iv) Instrument development, including satellite and non-satellite sensors for atmospheric trace constituents, solar flux and meteorological parameters;

   (b) Research into health, biological and photodegradation effects
   (i) The relationship between human exposure to visible and ultra-violet solar radiation and (a) the development of both non-melanoma and melanoma skin cancer and (b) the effects on the immunological system;
   (ii) Effects of UV-B radiation, including the wavelength dependence, upon (a) agricultural crops, forests and other terrestrial ecosystems and (b) the aquatic food web and fisheries, as well as possible inhibition of oxygen production by marine phytoplankton;
   (iii) The mechanisms by which UV-B radiation acts on biological materials, species and ecosystems, including: the relationship between dose, dose rate, and response; photorepair, adaptation, and protection;
   (iv) Studies of biological action spectra and the spectral response using polychromatic radiation in order to include possible interactions of the various wavelength regions;
   (v) The influence of UV-B radiation on: the sensitivities and activities of biological species important to the biospheric balance; primary processes such as photosynthesis and biosynthesis;
   (vi) The influence of UV-B radiation on the photodegradation of pollutants, agricultural chemicals and other materials;

   (c) Research on effects on climate
   (i) Theoretical and observational studies of the radiative effects of ozone and other trace species and the impact on climate parameters, such as land and ocean surface temperatures, precipitation patterns, the exchange between the troposphere and stratosphere;
   (ii) The investigation of the effects of such climate impacts on various aspects of human activity;

   (d) Systematic observation on:
   (i) The status of the ozone layer (i.e. the spatial and temporal variability of the total column content and vertical distribution) by making the Global Ozone Observing System, based

on the integration of satellite and ground-based systems, fully operational;

(ii) The tropospheric and stratospheric concentrations of source gases for the HOx, HOx, Cl0x and carbon families;

(iii) The temperature from the ground to the mesosphere, utilizing both ground-based and satellite systems;

(iv) Wavelength-resolved solar flux reaching, and thermal radiation leaving, the Earth's atmosphere, utilizing satellite measurements;

(v) Wavelength-resolved solar flux reaching the Earth's surface in the ultra-violet range having biological effects (UV-B);

(vi) Aerosol properties and distribution from the ground to the mesosphere, utilizing ground-based, airborne and satellite systems;

(vii) Climatically important variables by the maintenance of programmes of high-quality meteorological surface measurements;

(viii) Trace species, temperatures, solar flux and aerosols utilizing improved methods for analyzing global data.

3. The Parties to the Convention shall co-operate, taking into account the particular needs of the developing countries, in promoting the appropriate scientific and technical training required to participate in the research and systematic observations outlined in this annex. Particular emphasis should be given to the intercalibration of observational instrumentation and methods with a view to generating comparable or standardized scientific data sets.

4. The following chemical substances of natural and anthropogenic origin, not listed in order of priority, are thought to have the potential to modify the chemical and physical properties of the ozone layer.

(a) Carbon substances

(i) Carbon monoxide (CO) Carbon monoxide has significant natural and anthropogenic sources, and is thought to play a major direct role in tropospheric photochemistry, and an indirect role in stratospheric photochemistry.

(ii) Carbon dioxide (CO2) Carbon dioxide has significant natural and anthropogenic sources, and affects stratospheric ozone by influencing the thermal structure of the atmosphere.

(iii) Methane (CH4) Methane has both natural and anthropogenic sources, and affects both tropospheric and stratospheric ozone.

(iv) Non-methane hydrocarbon species Non-methane hydrocarbon species, which consist of a large number of chemical substances, have both natural and anthropogenic sources, and play a direct role in tropospheric photochemistry and an indirect role in stratospheric photochemistry.

(b) Nitrogen substances

(i) Nitrous oxide (N2O) The dominant sources of N2O are natural, but anthropogenic contributions are becoming increasingly important. Nitrous oxide is the primary source of stratospheric NOx, which play a vital role in controlling the abundance of stratospheric ozone.

(ii) Nitrogen oxides (NOx) Ground-level sources of NOx play a major direct role only in tropospheric photochemical processes and an indirect role in stratosphere photochemistry, whereas injection of NOx close to the tropopause may lead directly to a change in upper tropospheric and stratospheric ozone.

(c) Chlorine substances

(i) Fully halogenated alkanes, e.g. CCl4, CFCl3 (CFC_11), CF2Cl2 (CFC_12), C2F3Cl3 (CFC_113), C2F4Cl2 (CFC_114) Fully halogenated alkanes are anthropogenic and act as a source of Cl0x which plays a vital role in ozone photochemistry, especially in the 30_50 km altitude region.

(ii) Partially halogenated alkanes, e.g. CH3Cl, CHF2Cl (CFC_22), CH3CCl3, CHFCl2 (CFC_21) The sources of CH3Cl are natural, whereas the other partially halogenated alkanes mentioned above are anthropogenic in origin. These gases also act as a source of stratospheric Cl0x.

(d) Bromine substances

Fully halogenated alkanes, e.g. CF3Br These gases are anthropogenic and act as a source of BrOx, which behaves in a manner similar to ClOx.

(e) Hydrogen substances

(i) Hydrogen (H2) Hydrogen, the source of which is natural and anthropogenic, plays a minor role in stratospheric photochemistry.

(ii) Water (H2O) Water, the source of which is natural, plays a vital role in both tropospheric and stratospheric photochemistry. Local sources of water vapor in the stratosphere include the oxidation of methane and, to a lesser extent, of hydrogen.

ANNEX II

INFORMATION EXCHANGE

1. The Parties to the Convention recognize that the collection and sharing of information is an important means of implementing the objectives of this Convention and of assuring that any actions that may be taken are appropriate and equitable. Therefore, Parties shall exchange scientific, technical, socio-economic, business, commercial and legal information.

2. The Parties to the Convention, in deciding what information is to be collected and exchanged, should take into account the usefulness of the information and the costs of obtaining it. The Parties further recognize that co-operation under this annex has to be consistent with national laws, regulations and practices regarding patents, trade secrets, and protection of confidential and proprietary information.

3. Scientific information. This includes information on:
   (a) Planned and ongoing research, both governmental and private, to facilitate the co-ordination of research programmes so as to make the most effective use of available national and international resources;
   (b) The emission data needed for research;
   (c) Scientific results published in peer-reviewed literature on the understanding of the physics and chemistry of the Earth's atmosphere and of its susceptibility to change, in particular on the state of the ozone layer and effects on human health, environment and climate which would result from changes on all time-scales in either the total column content or the vertical distribution of ozone;
   (d) The assessment of research results and the recommendation for future research.

4. Technical information. This includes information on:
   (a) The availability and cost of chemical substitutes and of alternative technologies to reduce the emissions of ozone-modifying substances and related planned and ongoing research;
   (b) The limitations and any risks involved in using chemical or other substitutes and alternative technologies.

5. Socio-economic and commercial information on the substances referred to in Annex I . This includes information on:
   (a) Production and production capacity;
   (b) Use and use patterns;
   (c) Imports/exports;
   (d) The costs, risks and benefits of human activities which may indirectly modify the ozone layer and of the impacts of regulatory actions taken or being considered to control these activities.

6. Legal information. This includes information on:
   (a) National laws, administrative measures and legal research relevant to the protection of the ozone layer;
   (b) International agreements, including bilateral agreements, relevant to the protection of the ozone layer;
   (c) Methods and terms of licensing and availability of patents relevant to the protection of the ozone layer.

MONTREAL PROTOCOL

The 1987 Montreal Protocol on Substances That Deplete the Ozone Layer

TEXT OF THE PROTOCOL

as adjusted and amended by the second Meeting of the Parties
(London, 27-29 June 1990)
and by the fourth Meeting of the Parties
(Copenhagen, 23-25 November 1992)
and further adjusted by the seventh Meeting of the Parties
(Vienna, 5-7 December 1995)
and further adjusted and amended by the ninth Meeting of the Parties
(Montreal, 15-17 September 1997)
and further adjusted and amended by the eleventh Meeting of the Parties
(Beijing, 27 November – 3 December 1999)

[*Please note that this version of the Montreal Protocol includes the text of the adjustment adopted by the Parties at the Eleventh Meeting of the Parties as adopted in December 1999*]

PREAMBLE

The Parties to this Protocol,
Being Parties to the Vienna Convention for the Protection of the Ozone Layer,

Mindful of their obligation under that Convention to take appropriate measures to protect human health and the environment against adverse effects resulting or likely to result from human activities which modify or are likely to modify the ozone layer,

Recognizing that world-wide emissions of certain substances can significantly deplete and otherwise modify the ozone layer in a manner that is likely to result in adverse effects on human health and the environment,

Conscious of the potential climatic effects of emissions of these substances,

Aware that measures taken to protect the ozone layer from depletion should be based on relevant scientific knowledge, taking into account technical and economic considerations,

Determined to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge, taking into account technical and economic considerations and bearing in mind the developmental needs of developing countries,
Acknowledging that special provision is required to meet the needs of developing countries, including the provision of additional financial resources and access to relevant technologies, bearing in mind that the magnitude of funds necessary is predictable, and the funds can be expected to make a substantial difference in the world's ability to address the scientifically established problem of ozone depletion and its harmful effects,

Noting the precautionary measures for controlling emissions of certain chlorofluorocarbons that have already been taken at national and regional levels,
Considering the importance of promoting international co-operation in the research, development and transfer of alternative technologies relating to the control and reduction of emissions of substances that deplete the ozone layer, bearing in mind in particular the needs of developing countries,

HAVE AGREED AS FOLLOWS:

ARTICLE 1: DEFINITIONS

For the purposes of this Protocol:

1. "Convention" means the Vienna Convention for the Protection of the Ozone Layer, adopted on 22 March 1985.

2. "Parties" means, unless the text otherwise indicates, Parties to this Protocol.

3. "Secretariat" means the Secretariat of the Convention.

4. "Controlled substance" means a substance in Annex A, Annex B, Annex C or Annex E to this Protocol, whether existing alone or in a mixture. It includes the isomers of any such substance, except as specified in the relevant Annex, but ex-

cludes any controlled substance or mixture which is in a manufactured product other than a container used for the transportation or storage of that substance.

5. "Production" means the amount of controlled substances produced, minus the amount destroyed by technologies to be approved by the Parties and minus the amount entirely used as feedstock in the manufacture of other chemicals. The amount recycled and reused is not to be considered as "production".

6. "Consumption" means production plus imports minus exports of controlled substances.

7. "Calculated levels" of production, imports, exports and consumption means levels determined in accordance with Article 3.

8. "Industrial rationalization" means the transfer of all or a portion of the calculated level of production of one Party to another, for the purpose of achieving economic efficiencies or responding to anticipated shortfalls in supply as a result of plant closures.

ARTICLE 2: CONTROL MEASURES

1. *Incorporated in Article 2A.*

2. *Replaced by Article 2B.*

3. *Replaced by Article 2A.*

4. *Replaced by Article 2A.*

5. Any Party may, for one or more control periods, transfer to another Party any portion of its calculated level of production set out in Articles 2A to 2E, and Article 2H, provided that the total combined calculated levels of production of the Parties concerned for any group of controlled substances do not exceed the production limits set out in those Articles for that group. Such transfer of production shall be notified to the Secretariat by each of the Parties concerned, stating the terms of such transfer and the period for which it is to apply.

5 *bis*. Any Party not operating under paragraph 1 of Article 5 may, for one or more control periods, transfer to another such Party any portion of its calculated level of consumption set out in Article 2F, provided that the calculated level of consumption of controlled substances in Group I of Annex A of the Party transferring the portion of its calculated level of consumption did not exceed 0.25 kilograms per capita in 1989 and that the total combined calculated levels of consumption of the Parties concerned do not exceed the consumption limits set out in Article 2F. Such transfer of consumption shall be notified to the Secretariat by each of the Parties concerned, stating the terms of such transfer and the period for which it is to apply.

6. Any Party not operating under Article 5, that has facilities for the production of Annex A or Annex B controlled substances under construction, or contracted for, prior to 16 September 1987, and provided for in national legislation prior to 1 January 1987, may add the production from such facilities to its 1986 production of such substances for the purposes of determining its calculated level of production for 1986, provided that such facilities are completed by 31 December 1990 and that such production does not raise that Party's annual calculated level of consumption of the controlled substances above 0.5 kilograms per capita.

7. Any transfer of production pursuant to paragraph 5 or any addition of production pursuant to paragraph 6 shall be notified to the Secretariat, no later than the time of the transfer or addition.

8.
(a) Any Parties which are Member States of a regional economic integration organization as defined in Article 1 (6) of the Convention may agree that they shall jointly fulfil their obligations respecting consumption under this Article and Articles 2A to 2H provided that their total combined calculated level of consumption does not exceed the levels required by this Article and Articles 2A to 2H.
(b) The Parties to any such agreement shall inform the Secretariat of the terms of the agreement before the date of the reduction in consumption with which the agreement is concerned.
(c) Such agreement will become operative only if all Member States of the regional economic integration organization and the organization concerned are Parties to the Protocol and have notified the Secretariat of their manner of implementation.

9.
(a) Based on the assessments made pursuant to Article 6, the Parties may decide whether:
(i) Adjustments to the ozone depleting potentials specified in Annex A, Annex B, Annex C and/or Annex E should be made and, if so, what the adjustments should be; and
(ii) Further adjustments and reductions of production or consumption of the controlled

substances should be undertaken and, if so, what the scope, amount and timing of any such adjustments and reductions should be;

(b) Proposals for such adjustments shall be communicated to the Parties by the Secretariat at least six months before the meeting of the Parties at which they are proposed for adoption;

(c) In taking such decisions, the Parties shall make every effort to reach agreement by consensus. If all efforts at consensus have been exhausted, and no agreement reached, such decisions shall, as a last resort, be adopted by a two-thirds majority vote of the Parties present and voting representing a majority of the Parties operating under Paragraph 1 of Article 5 present and voting and a majority of the Parties not so operating present and voting;

(d) The decisions, which shall be binding on all Parties, shall forthwith be communicated to the Parties by the Depositary. Unless otherwise provided in the decisions, they shall enter into force on the expiry of six months from the date of the circulation of the communication by the Depositary.

10. Based on the assessments made pursuant to Article 6 of this Protocol and in accordance with the procedure set out in Article 9 of the Convention, the Parties may decide:
    (a) whether any substances, and if so which, should be added to or removed from any annex to this Protocol, and
    (b) the mechanism, scope and timing of the control measures that should apply to those substances;

11. Notwithstanding the provisions contained in this Article and Articles 2A to 2H Parties may take more stringent measures than those required by this Article and Articles 2A to 2H.

INTRODUCTION TO THE ADJUSTMENTS

The Second, Fourth, Seventh and Ninth Meetings of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer decided, on the basis of assessments made pursuant to Article 6 of the Protocol, to adopt adjustments and reductions of production and consumption of the controlled substances in Annexes A, B, C and E to the Protocol as follows (the text here shows the cumulative effect of all the adjustments):

ARTICLE 2A: CFCS

1. Each Party shall ensure that for the twelve-month period commencing on the first day of the seventh month following the date of entry into force of this Protocol, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed its calculated level of consumption in 1986. By the end of the same period, each Party producing one or more of these substances shall ensure that its calculated level of production of the substances does not exceed its calculated level of production in 1986, except that such level may have increased by no more than ten per cent based on the 1986 level. Such increase shall be permitted only so as to satisfy the basic domestic needs of the Parties operating under Article 5 and for the purposes of industrial rationalization between Parties.

2. Each Party shall ensure that for the period from 1 July 1991 to 31 December 1992 its calculated levels of consumption and production of the controlled substances in Group I of Annex A do not exceed 150 per cent of its calculated levels of production and consumption of those substances in 1986; with effect from 1 January 1993, the twelve-month control period for these controlled substances shall run from 1 January to 31 December each year.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed, annually, twenty-five per cent of its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, twenty-five per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit

by up to fifteen per cent of its calculated level of production in 1986. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ARTICLE 2B: HALONS

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1992, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed, annually, its calculated level of consumption in 1986. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1986.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex A does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1986. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ARTICLE 2C: OTHER FULLY HALOGENATED CFCS

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, eighty per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same period, ensure that its calculated level of production of the substances does not exceed, annually, eighty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed, annually, twenty-five per cent of its calculated level of consumption in 1989. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed, annually, twenty-five per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex B does not exceed zero. Each Party producing one or more of these substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ARTICLE 2D: CARBON TETRACHLORIDE

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, its calculated level of consumption of the controlled substance in Group II of Annex B does not exceed, annually, fifteen per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, fifteen per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5,

its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group II of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ARTICLE 2E: 1,1,1: TRICHLOROETHANE (METHYL CHLOROFORM)

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1993, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, its calculated level of consumption in 1989. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1994, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed, annually, fifty per cent of its calculated level of consumption in 1989. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, fifty per cent of its calculated level of production in 1989. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1989.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Group III of Annex B does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production for 1989. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ARTICLE: HYDROCHLOROFLUOROCARBONS

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, the sum of:
   (a) Two point eight per cent of its calculated level of consumption in 1989 of the controlled substances in Group I of Annex A; and
   (b) Its calculated level of consumption in 1989 of the controlled substances in Group I of Annex C.

2. Each Party shall ensure that for the twelve month period commencing on 1 January 2004, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, sixty-five per cent of the sum referred to in paragraph 1 of this Article.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, thirty-five per cent of the sum referred to in paragraph 1 of this Article.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2015, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, ten per cent of the sum referred to in paragraph 1 of this Article.

5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2020, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, zero point five per cent of the sum referred to in paragraph 1 of this Article. Such consumption shall, however, be restricted to the servicing of refrigeration and air conditioning equipment existing at that date.

6. Each Party shall ensure that for the twelve-month period commencing on 1 January 2030, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed zero.

7. As of 1 January 1996, each Party shall endeavour to ensure that:
   (a) The use of controlled substances in Group I of Annex C is limited to those applications where other more environmentally suitable alternative substances or technologies are not available;
   (b) The use of controlled substances in Group I of Annex C is not outside the areas of application currently met by controlled substances in Annexes A, B and C, except in rare cases for the protection of human life or human health; and
   (c) Controlled substances in Group I of Annex C are selected for use in a manner that minimizes ozone depletion, in addition to meeting other environmental, safety and economic considerations.

ARTICLE 2G: HYDROBROMOFLUOROCARBONS

Each Party shall ensure that for the twelve-month period commencing on 1 January 1996, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group II of Annex C does not exceed zero. Each Party producing the substances shall, for the same periods, ensure that its calculated level of production of the substances does not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

ARTICLE 2H: METHYL BROMIDE

1. Each Party shall ensure that for the twelve-month period commencing on 1 January 1995, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, its calculated level of consumption in 1991. Each Party producing the substance shall, for the same period, ensure that its calculated level of production of the substance does not exceed, annually, its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.

2. Each Party shall ensure that for the twelve-month period commencing on 1 January 1999, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, seventy-five per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, seventy-five per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2001, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, fifty per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, fifty per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2003, and in the twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed, annually, thirty per cent of its calculated level of consumption in 1991. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed, annually, thirty per cent of its calculated level of production in 1991. However, in order to satisfy the basic domestic needs of the Parties operating un-

der paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to ten per cent of its calculated level of production in 1991.

5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substance in Annex E does not exceed zero. Each Party producing the substance shall, for the same periods, ensure that its calculated level of production of the substance does not exceed zero. However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1991. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be critical uses.

6. The calculated levels of consumption and production under this Article shall not include the amounts used by the Party for quarantine and pre-shipment applications.

ARTICLE 3: CALCULATION OF CONTROL LEVELS

For the purposes of Articles 2, 2A to 2H and 5, each Party shall, for each group of substances in Annex A, Annex B, Annex C or Annex E determine its calculated levels of:

(a) Production by:
  (i) multiplying its annual production of each controlled substance by the ozone depleting potential specified in respect of it in Annex A, Annex B, Annex C or Annex E;
  (ii) adding together, for each such Group, the resulting figures;
(b) Imports and exports, respectively, by following, mutatis mutandis, the procedure set out in subparagraph (a); and
(c) Consumption by adding together its calculated levels of production and imports and subtracting its calculated level of exports as determined in accordance with subparagraphs (a) and (b). However, beginning on 1 January 1993, any export of controlled substances to non-Parties shall not be subtracted in calculating the consumption level of the exporting Party.

[The underlined text printed below in Articles 4, 4A and 4B derives from the Amendment adopted by the Parties at the Ninth Conference of the Parties (the "Montreal Amendment").

At the date of printing, this Amendment is not in force. It will enter into force, only for those Parties which ratify it, on 1 January 1999.]

ARTICLE 4: CONTROL OF TRADE WITH NON-PARTIES

1. As of 1 January 1990, each party shall ban the import of the controlled substances in Annex A from any State not party to this Protocol.

1 *bis*. Within one year of the date of the entry into force of this paragraph, each Party shall ban the import of the controlled substances in Annex B from any State not party to this Protocol.

1 *ter*. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of any controlled substances in Group II of Annex C from any State not party to this Protocol.

1 *qua*. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the controlled substance in Annex E from any State not party to this Protocol.

2. As of 1 January 1993, each Party shall ban the export of any controlled substances in Annex A to any State not party to this Protocol.

2 *bis*. Commencing one year after the date of entry into force of this paragraph, each Party shall ban the export of any controlled substances in Annex B to any State not party to this Protocol.

2 *ter*. Commencing one year after the date of entry into force of this paragraph, each Party shall ban the export of any controlled substances in Group II of Annex C to any State not party to this Protocol.

2 *qua*. Commencing one year of the date of entry into force of this paragraph, each Party shall ban the export of the controlled substance in Annex E to any State not party to this Protocol.

3. By 1 January 1992, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Annex A. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

3 *bis*. Within three years of the date of the entry into force of this paragraph, the Parties shall, fol-

lowing the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Annex B. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

3 *ter*. Within three years of the date of entry into force of this paragraph, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of products containing controlled substances in Group II of Annex C. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

4. By 1 January 1994, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Annex A. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

4 *bis*. Within five years of the date of the entry into force of this paragraph, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Annex B. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

4 *ter*. Within five years of the date of entry into force of this paragraph, the Parties shall determine the feasibility of banning or restricting, from States not party to this Protocol, the import of products produced with, but not containing, controlled substances in Group II of Annex C. If determined feasible, the Parties shall, following the procedures in Article 10 of the Convention, elaborate in an annex a list of such products. Parties that have not objected to the annex in accordance with those procedures shall ban or restrict, within one year of the annex having become effective, the import of those products from any State not party to this Protocol.

5. Each Party undertakes to the fullest practicable extent to discourage the export to any State not party to this Protocol of technology for producing and for utilizing controlled substances in Annexes A and B, Group II of Annex C and Annex E.

6. Each Party shall refrain from providing new subsidies, aid, credits, guarantees or insurance programmes for the export to States not party to this Protocol of products, equipment, plants or technology that would facilitate the production of controlled substances in Annexes A and B, Group II of Annex C and Annex E.

7. Paragraphs 5 and 6 shall not apply to products, equipment, plants or technology that improve the containment, recovery, recycling or destruction of controlled substances, promote the development of alternative substances, or otherwise contribute to the reduction of emissions of controlled substances in Annexes A and B, Group II of Annex C and Annex E.

8. Notwithstanding the provisions of this Article, imports and exports referred to in paragraphs 1 to 4 *ter* of this Article may be permitted from, or to, any State not party to this Protocol, if that State is determined, by a meeting of the Parties, to be in full compliance with Article 2, Articles 2A to 2E, Articles 2G and 2H and this Article, and have submitted data to that effect as specified in Article 7.

9. For the purposes of this Article, the term "State not party to this Protocol" shall include, with respect to a particular controlled substance, a State or regional economic integration organization that has not agreed to be bound by the control measures in effect for that substance.

10. By 1 January 1996, the Parties shall consider whether to amend this Protocol in order to extend the measures in this Article to trade in controlled substances in Group I of Annex C and in Annex E with States not party to the Protocol.

ARTICLE 4A: CONTROL OF TRADE WITH PARTIES

1. Where, after the phase-out date applicable to it for a controlled substance, a Party is unable, de-

spite having taken all practicable steps to comply with its obligation under the Protocol, to cease production of that substance for domestic consumption, other than for uses agreed by the Parties to be essential, it shall ban the export of used, recycled and reclaimed quantities of that substance, other than for the purpose of destruction.

2. Paragraph 1 of this Article shall apply without prejudice to the operation of Article 11 of the Convention and the non-compliance procedure developed under Article 8 of the Protocol.

ARTICLE 4B: LICENSING

1. Each Party shall, by 1 January 2000 or within three months of the date of entry into force of this Article for it, whichever is the later, establish and implement a system for licensing the import and export of new, used, recycled and reclaimed controlled substances in Annexes A, B, C and E.

2. Notwithstanding paragraph 1 of this Article, any Party operating under paragraph 1 of Article 5 which decides it is not in a position to establish and implement a system for licensing the import and export of controlled substances in Annexes C and E, may delay taking those actions until 1 January 2005 and 1 January 2002, respectively.

3. Each Party shall, within three months of the date of introducing its licensing system, report to the Secretariat on the establishment and operation of that system.

4. The Secretariat shall periodically prepare and circulate to all Parties a list of the Parties that have reported to it on their licensing systems and shall forward this information to the Implementation Committee for consideration and appropriate recommendations to the Parties.

ARTICLE 5: SPECIAL SITUATION OF DEVELOPING COUNTRIES

1. Any Party that is a developing country and whose annual calculated level of consumption of the controlled substances in Annex A is less than 0.3 kilograms per capita on the date of the entry into force of the Protocol for it, or any time thereafter until 1 January 1999, shall, in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures set out in Articles 2A to 2E, provided that any further amendments to the adjustments or Amendment adopted at the Second Meeting of the Parties in London, 29 June 1990, shall apply to the Parties operating under this paragraph after the review provided for in paragraph 8 of this Article has taken place and shall be based on the conclusions of that review.

1 *bis*. The Parties shall, taking into account the review referred to in paragraph 8 of this Article, the assessments made pursuant to Article 6 and any other relevant information, decide by 1 January 1996, through the procedure set forth in paragraph 9 of Article 2:

(a) With respect to paragraphs 1 to 6 of Article 2F, what base year, initial levels, control schedules and phase-out date for consumption of the controlled substances in Group I of Annex C will apply to Parties operating under paragraph 1 of this Article;
(b) With respect to Article 2G, what phase-out date for production and consumption of the controlled substances in Group II of Annex C will apply to Parties operating under paragraph 1 of this Article; and
(c) With respect to Article 2H, what base year, initial levels and control schedules for consumption and production of the controlled substance in Annex E will apply to Parties operating under paragraph 1 of this Article.

2. However, any Party operating under paragraph 1 of this Article shall exceed neither an annual calculated level of consumption of the controlled substances in Annex A of 0.3 kilograms per capita nor an annual calculated level of consumption of controlled substances of Annex B of 0.2 kilograms per capita.

3. When implementing the control measures set out in Articles 2A to 2E, any Party operating under paragraph 1 of this Article shall be entitled to use:
(a) For controlled substances under Annex A, either the average of its annual calculated level of consumption for the period 1995 to 1997 inclusive or a calculated level of consumption of 0.3 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to consumption.
(b) For controlled substances under Annex B, the average of its annual calculated level of consumption for the period 1998 to 2000 inclusive or a calculated level of consumption of 0.2 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to consumption.
(c) For controlled substances under Annex A, either the average of its annual calculated level of production for the period 1995 to

1997 inclusive or a calculated level of production of 0.3 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to production.

(d) For controlled substances under Annex B, either the average of its annual calculated level of production for the period 1998 to 2000 inclusive or a calculated level of production of 0.2 kilograms per capita, whichever is the lower, as the basis for determining its compliance with the control measures relating to production.

4. If a Party operating under paragraph 1 of this Article, at any time before the control measures obligations in Articles 2A to 2H become applicable to it, finds itself unable to obtain an adequate supply of controlled substances, it may notify this to the Secretariat. The Secretariat shall forthwith transmit a copy of such notification to the Parties, which shall consider the matter at their next Meeting, and decide upon appropriate action to be taken.

5. Developing the capacity to fulfil the obligations of the Parties operating under paragraph 1 of this Article to comply with the control measures set out in Articles 2A to 2E, and any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 bis of this Article, and their implementation by those same Parties will depend upon the effective implementation of the financial co-operation as provided by Article 10 and the transfer of technology as provided by Article 10A.

6. Any Party operating under paragraph 1 of this Article may, at any time, notify the Secretariat in writing that, having taken all practicable steps it is unable to implement any or all of the obligations laid down in Articles 2A to 2E, or any or all obligations in Articles 2F to 2H that are decided pursuant to paragraph 1 bis of this Article, due to the inadequate implementation of Articles 10 and 10A. The Secretariat shall forthwith transmit a copy of the notification to the Parties, which shall consider the matter at their next Meeting, giving due recognition to paragraph 5 of this Article and shall decide upon appropriate action to be taken.

7. During the period between notification and the Meeting of the Parties at which the appropriate action referred to in paragraph 6 above is to be decided, or for a further period if the Meeting of the Parties so decides, the non-compliance procedures referred to in Article 8 shall not be invoked against the notifying Party.

8. A Meeting of the Parties shall review, not later than 1995, the situation of the Parties operating under paragraph 1 of this Article, including the effective implementation of financial co-operation and transfer of technology to them, and adopt such revisions that may be deemed necessary regarding the schedule of control measures applicable to those Parties.

8 *bis*. Based on the conclusions of the review referred to in paragraph 8 above:

(a) With respect to the controlled substances in Annex A, a Party operating under paragraph 1 of this Article shall, in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures adopted by the Second Meeting of the Parties in London, 29 June 1990, and reference by the Protocol to Articles 2A and 2B shall be read accordingly;

(b) With respect to the controlled substances in Annex B, a Party operating under paragraph 1 of this Article shall, in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures adopted by the Second Meeting of the Parties in London, 29 June 1990, and reference by the Protocol to Articles 2C to 2E shall be read accordingly.

8 *ter*. Pursuant to paragraph 1 bis above:

(a) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2016, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed, annually, its calculated level of consumption in 2015;

(b) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2040, and in each twelve-month period thereafter, its calculated level of consumption of the controlled substances in Group I of Annex C does not exceed zero;

(c) Each Party operating under paragraph 1 of this Article shall comply with Article 2G;

(d) With regard to the controlled substance contained in Annex E:

(i) As of 1 January 2002 each Party operating under paragraph 1 of this Article shall comply with the control measures set out in paragraph 1 of Article 2H and, as the basis for its compliance with these control measures, it shall use the average of its annual calculated level of consumption and production, respectively, for the period of 1995 to 1998 inclusive;

(ii) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2005, and in each twelve-month period thereafter, its calculated levels of consumption and production of the controlled substance in Annex E do not exceed, annually, eighty per cent of the average of its annual calculated levels of consumption and production, respectively, for the period of 1995 to 1998 inclusive;

(iii) Each Party operating under paragraph 1 of this Article shall ensure that for the twelve-month period commencing on 1 January 2015 and in each twelve-month period thereafter, its calculated levels of consumption and production of the controlled substance in Annex E do not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be critical uses;

(iv) The calculated levels of consumption and production under this subparagraph shall not include the amounts used by the Party for quarantine and pre-shipment applications.

9. Decisions of the Parties referred to in paragraph 4, 6 and 7 of this Article shall be taken according to the same procedure applied to decision-making under Article 10.

ARTICLE 6: ASSESSMENT AND REVIEW OF CONTROL MEASURES

Beginning in 1990, and at least every four years thereafter, the Parties shall assess the control measures provided for in Article 2 and Articles 2A to 2H on the basis of available scientific, environmental, technical and economic information. At least one year before each assessment, the Parties shall convene appropriate panels of experts qualified in the fields mentioned and determine the composition and terms of reference of any such panels. Within one year of being convened, the panels will report their conclusions, through the Secretariat, to the Parties.

ARTICLE 7: REPORTING OF DATA

1. Each Party shall provide to the Secretariat, within three months of becoming a Party, statistical data on its production, imports and exports of each of the controlled substances in Annex A for the year 1986, or the best possible estimates of such data where actual data are not available.

2. Each Party shall provide to the Secretariat statistical data on its production, imports and exports of each of the controlled substances

û in Annexes B and C, for the year 1989;

û in Annex E, for the year 1991,

or the best possible estimates of such data where actual data are not available, not later than three months after the date when the provisions set out in the Protocol with regard to the substances in Annexes B, C and E respectively enter into force for that Party.

3. Each Party shall provide to the Secretariat statistical data on its annual production (as defined in paragraph 5 of Article 1) of each of the controlled substances listed in Annexes A, B, C and E and, separately, for each substance,

û Amounts used for feedstocks,

û Amounts destroyed by technologies approved by the Parties, and

û Imports from and exports to Parties and non-Parties respectively,

for the year during which provisions concerning the substances in Annexes A, B, C and E respectively entered into force for that Party and for each year thereafter. Data shall be forwarded not later than nine months after the end of the year to which the data relate.

3 *bis*. Each Party shall provide to the Secretariat separate statistical data of its annual imports and exports of each of the controlled substances listed in Group II of Annex A and Group I of Annex C that have been recycled.

4. For Parties operating under the provisions of paragraph 8 (a) of Article 2, the requirements in paragraphs 1, 2, 3 and 3 bis of this Article in respect of statistical data on imports and exports shall be satisfied if the regional economic integration organization concerned provides data on imports and exports between the organization and States that are not members of that organization.

ARTICLE 8: NON-COMPLIANCE

The Parties, at their first meeting, shall consider and approve procedures and institutional mechanisms for determining non-compliance with the provisions of

this Protocol and for treatment of Parties found to be in non-compliance.

ARTICLE 9: RESEARCH, DEVELOPMENT, PUBLIC AWARENESS AND EXCHANGE OF INFORMATION

1. The Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account in particular the needs of developing countries, in promoting, directly or through competent international bodies, research, development and exchange of information on:
   (a) best technologies for improving the containment, recovery, recycling, or destruction of controlled substances or otherwise reducing their emissions;
   (b) possible alternatives to controlled substances, to products containing such substances, and to products manufactured with them; and
   (c) costs and benefits of relevant control strategies.

2. The Parties, individually, jointly or through competent international bodies, shall co-operate in promoting public awareness of the environmental effects of the emissions of controlled substances and other substances that deplete the ozone layer.

3. Within two years of the entry into force of this Protocol and every two years thereafter, each Party shall submit to the Secretariat a summary of the activities it has conducted pursuant to this Article.

ARTICLE 10: FINANCIAL MECHANISM

1. The Parties shall establish a mechanism for the purposes of providing financial and technical co-operation, including the transfer of technologies, to Parties operating under paragraph 1 of Article 5 of this Protocol to enable their compliance with the control measures set out in Articles 2A to 2E, and any control measures in Articles 2F to 2H that are decided pursuant to paragraph 1 bis of Article 5 of the Protocol. The mechanism, contributions to which shall be additional to other financial transfers to Parties operating under that paragraph, shall meet all agreed incremental costs of such Parties in order to enable their compliance with the control measures of the Protocol. An indicative list of the categories of incremental costs shall be decided by the meeting of the Parties.

2. The mechanism established under paragraph 1 shall include a Multilateral Fund. It may also include other means of multilateral, regional and bilateral co-operation.

3. The Multilateral Fund shall:
   (a) Meet, on a grant or concessional basis as appropriate, and according to criteria to be decided upon by the Parties, the agreed incremental costs;

   (b) Finance clearing-house functions to:
   (i) Assist Parties operating under paragraph 1 of Article 5, through country specific studies and other technical co-operation, to identify their needs for co-operation;
   (ii) Facilitate technical co-operation to meet these identified needs;
   (iii) Distribute, as provided for in Article 9, information and relevant materials, and hold workshops, training sessions, and other related activities, for the benefit of Parties that are developing countries; and
   (iv) Facilitate and monitor other multilateral, regional and bilateral co-operation available to Parties that are developing countries;

   (c) Finance the secretarial services of the Multilateral Fund and related support costs.

4. The Multilateral Fund shall operate under the authority of the Parties who shall decide on its overall policies.

5. The Parties shall establish an Executive Committee to develop and monitor the implementation of specific operational policies, guidelines and administrative arrangements, including the disbursement of resources, for the purpose of achieving the objectives of the Multilateral Fund. The Executive Committee shall discharge its tasks and responsibilities, specified in its terms of reference as agreed by the Parties, with the co-operation and assistance of the International Bank for Reconstruction and Development (World Bank), the United Nations Environment Programme, the United Nations Development Programme or other appropriate agencies depending on their respective areas of expertise. The members of the Executive Committee, which shall be selected on the basis of a balanced representation of the Parties operating under paragraph 1 of Article 5 and of the Parties not so operating, shall be endorsed by the Parties.

6. The Multilateral Fund shall be financed by contributions from Parties not operating under paragraph 1 of Article 5 in convertible currency or, in certain circumstances, in kind and/or in national currency, on the basis of the United Nations scale of assessments. Contributions by other Parties shall be encouraged. Bilateral and, in particular cases agreed by a decision of the Parties, regional

co-operation may, up to a percentage and consistent with any criteria to be specified by decision of the Parties, be considered as a contribution to the Multilateral Fund, provided that such co-operation, as a minimum:

(a) Strictly relates to compliance with the provisions of this Protocol;
(b) Provides additional resources; and
(c) Meets agreed incremental costs.

7. The Parties shall decide upon the programme budget of the Multilateral Fund for each fiscal period and upon the percentage of contributions of the individual Parties thereto.

8. Resources under the Multilateral Fund shall be disbursed with the concurrence of the beneficiary Party.

9. Decisions by the Parties under this Article shall be taken by consensus whenever possible. If all efforts at consensus have been exhausted and no agreement reached, decisions shall be adopted by a two-thirds majority vote of the Parties present and voting, representing a majority of the Parties operating under paragraph 1 of Article 5 present and voting and a majority of the Parties not so operating present and voting.

10. The financial mechanism set out in this Article is without prejudice to any future arrangements that may be developed with respect to other environmental issues.

ARTICLE 10A: TRANSFER OF TECHNOLOGY

Each Party shall take every practicable step, consistent with the programmes supported by the financial mechanism, to ensure:

(a) that the best available, environmentally safe substitutes and related technologies are expeditiously transferred to Parties operating under paragraph 1 of Article 5; and
(b) that the transfers referred to in subparagraph (a) occur under fair and most favourable conditions.

ARTICLE 11: MEETINGS OF THE PARTIES

1. The Parties shall hold meetings at regular intervals. The Secretariat shall convene the first meeting of the Parties not later than one year after the date of the entry into force of this Protocol and in conjunction with a meeting of the Conference of the Parties to the Convention, if a meeting of the latter is scheduled within that period.

2. Subsequent ordinary meetings of the parties shall be held, unless the Parties otherwise decide, in conjunction with meetings of the Conference of the Parties to the Convention. Extraordinary meetings of the Parties shall be held at such other times as may be deemed necessary by a meeting of the Parties, or at the written request of any Party, provided that within six months of such a request being communicated to them by the Secretariat, it is supported by at least one third of the Parties.

3. The Parties, at their first meeting, shall:
(a) adopt by consensus rules of procedure for their meetings;
(b) adopt by consensus the financial rules referred to in paragraph 2 of Article 13;
(c) establish the panels and determine the terms of reference referred to in Article 6;
(d) consider and approve the procedures and institutional mechanisms specified in Article 8; and
(e) begin preparation of workplans pursuant to paragraph 3 of Article 10. *[The Article 10 in question is that of the original Protocol adopted in 1987.]*

4. The functions of the meetings of the Parties shall be to:
(a) review the implementation of this Protocol;
(b) decide on any adjustments or reductions referred to in paragraph 9 of Article 2;
(c) decide on any addition to, insertion in or removal from any annex of substances and on related control measures in accordance with paragraph 10 of Article 2;
(d) establish, where necessary, guidelines or procedures for reporting of information as provided for in Article 7 and paragraph 3 of Article 9;
(e) review requests for technical assistance submitted pursuant to paragraph 2 of Article 10;
(f) review reports prepared by the secretariat pursuant to subparagraph (c) of Article 12;
(g) assess, in accordance with Article 6, the control measures;
(h) consider and adopt, as required, proposals for amendment of this Protocol or any annex and for any new annex;
(i) consider and adopt the budget for implementing this Protocol; and
(j) consider and undertake any additional action that may be required for the achievement of the purposes of this Protocol.

5. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not party to this Protocol, may be represented at meetings of the Parties as observers. Any body or agency, whether national or in-

ternational, governmental or non-governmental, qualified in fields relating to the protection of the ozone layer which has informed the secretariat of its wish to be represented at a meeting of the Parties as an observer may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Parties.

ARTICLE 12: SECRETARIAT

For the purposes of this Protocol, the Secretariat shall:

(a) arrange for and service meetings of the Parties as provided for in Article 11;

(b) receive and make available, upon request by a Party, data provided pursuant to Article 7;

(c) prepare and distribute regularly to the Parties reports based on information received pursuant to Articles 7 and 9;

(d) notify the Parties of any request for technical assistance received pursuant to Article 10 so as to facilitate the provision of such assistance;

(e) encourage non-Parties to attend the meetings of the Parties as observers and to act in accordance with the provisions of this Protocol;

(f) provide, as appropriate, the information and requests referred to in subparagraphs (c) and (d) to such non-party observers; and

(g) perform such other functions for the achievement of the purposes of this Protocol as may be assigned to it by the Parties.

ARTICLE 13: FINANCIAL PROVISIONS

1. The funds required for the operation of this Protocol, including those for the functioning of the Secretariat related to this Protocol, shall be charged exclusively against contributions from the Parties.

2. The Parties, at their first meeting, shall adopt by consensus financial rules for the operation of this Protocol.

ARTICLE 14: RELATIONSHIP OF THIS PROTOCOL TO THE CONVENTION

Except as otherwise provided in this Protocol, the provisions of the Convention relating to its protocols shall apply to this Protocol.

ARTICLE 15: SIGNATURE

This Protocol shall be open for signature by States and by regional economic integration organizations in Montreal on 16 September 1987, in Ottawa from 17 September 1987 to 16 January 1988, and at United Nations Headquarters in New York from 17 January 1988 to 15 September 1988.

ARTICLE 16: ENTRY INTO FORCE

1. This Protocol shall enter into force on 1 January 1989, provided that at least eleven instruments of ratification, acceptance, approval of the Protocol or accession thereto have been deposited by States or regional economic integration organizations representing at least two-thirds of 1986 estimated global consumption of the controlled substances, and the provisions of paragraph 1 of Article 17 of the Convention have been fulfilled. In the event that these conditions have not been fulfilled by that date, the Protocol shall enter into force on the ninetieth day following the date on which the conditions have been fulfilled.

2. For the purposes of paragraph 1, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

3. After the entry into force of this Protocol, any State or regional economic integration organization shall become a Party to it on the ninetieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession.

ARTICLE 17: PARTIES JOINING AFTER ENTRY INTO FORCE

Subject to Article 5, any State or regional economic integration organization which becomes a Party to this Protocol after the date of its entry into force, shall fulfil forthwith the sum of the obligations under Article 2, as well as under Articles 2A to 2H and Article 4, that apply at that date to the States and regional economic integration organizations that became Parties on the date the Protocol entered into force.

ARTICLE 18: RESERVATIONS

No reservations may be made to this Protocol.

ARTICLE 19: WITHDRAWAL

Any Party may withdraw from this Protocol by giving written notification to the Depositary at any time after four years of assuming the obligations specified in paragraph 1 of Article 2A. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

ARTICLE 20: AUTHENTIC TEXTS

The original of this Protocol, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF THE UNDERSIGNED, BEING DULY AUTHORIZED TO THAT EFFECT, HAVE SIGNED THIS PROTOCOL.

DONE AT MONTREAL THIS SIXTEENTH DAY OF SEPTEMBER, ONE THOUSAND NINE HUNDRED AND EIGHTY SEVEN.

DATE OF ENTRY INTO FORCE 1 JANUARY 1989.

ANNEX A
CONTROLLED SUBSTANCES

Group	Substance	Ozone-Depleting Potential*
Group I		
$CFCl_3$	(CFC-11)	1.0
CF_2Cl_2	(CFC-12)	1.0
$C_2F_3Cl_3$	(CFC-113)	0.8
$C_2F_4Cl_2$	(CFC-114)	1.0
C_2F_5Cl	(CFC-115)	0.6
Group II		
CF_2BrCl	(halon-1211)	3.0
CF_3Br	(halon-1301)	10.0
$C_2F_4Br_2$	(halon-2402)	6.0

• These ozone depleting potentials are estimates based on existing knowledge and will be reviewed and revised periodically.

ANNEX B
CONTROLLES SUBSTANCES

Group	Substance	Ozone-Depleting Potential
Group I		
CF_3Cl	(CFC-13)	1.0
C_2FCl_5	(CFC-111)	1.0
$C_2F_2Cl_4$	(CFC-112)	1.0
C_3FCl_7	(CFC-211)	1.0
$C_3F_2Cl_6$	(CFC-212)	1.0
$C_3F_3Cl_5$	(CFC-213)	1.0
$C_3F_4Cl_4$	(CFC-214)	1.0
$C_3F_5Cl_3$	(CFC-215)	1.0
$C_3F_6Cl_2$	(CFC-216)	1.0
C_3F_7Cl	(CFC-217)	1.0
Group II		
CCl_4	carbon tetrachloride	1.1
Group III		
$C_2H_3Cl_3$*	1,1,1-tri-chloroethane* (methyl chloroform)	0.1

*** This formula does not refer to 1,1,2-trichloroethane.**

ANNEX C
CONTROLLED SUBSTANCES

Group	Substance	Number of isomers	Ozone-Depleting Potential*
Group I			
$CHFCl_2$	(HCFC-21)**	1	0.04
CHF_2Cl	(HCFC-22)**	1	0.055
CH_2FCl	(HCFC-31)	1	0.02
C_2HFCl_4	(HCFC-121)	2	0.01-0.04
$C_2HF_2Cl_3$	(HCFC-122)	3	0.02-0.08
$C_2HF_3Cl_2$	(HCFC-123)	3	0.02-0.06
$CHCl_2CF_3$	(HCFC-123)**	-	0.02
C_2HF_4Cl	(HCFC-124)	2	0.02-0.04
$CHFClCF_3$	(HCFC-124)**	-	0.022
$C_2H_2FCl_3$	(HCFC-131)	3	0.007-0.05
$C_2H_2F_2Cl_2$	(HCFC-132)	4	0.008-0.05
$C_2H_2F_3Cl$	(HCFC-133)	3	0.02-0.06
$C_2H_3FCl_2$	(HCFC-141)	3	0.005-0.07
CH_3CFCl_2	(HCFC-141b)**	-	0.11
$C_2H_3F_2Cl$	(HCFC-142)	3	0.008-0.07
CH_3CF_2Cl	(HCFC-142b)**	-	0.065
C_2H_4FCl	(HCFC-151)	2	0.003-0.005
C_3HFCl_6	(HCFC-221)	5	0.015-0.07
$C_3HF_2Cl_5$	(HCFC-222)	9	0.01-0.09
$C_3HF_3Cl_4$	(HCFC-223)	12	0.01-0.08
$C_3HF_4Cl_3$	(HCFC-224)	12	0.01-0.09
$C_3HF_5Cl_2$	(HCFC-225)	9	0.02-0.07
$CF_3CF_2CHCl_2$	(HCFC-225ca)**	-	0.025
CF_2ClCF_2CHClF	(HCFC-225cb)**	-	0.033
C_3HF_6Cl	(HCFC-226)	5	0.02-0.10
$C_3H_2FCl_5$	(HCFC-231)	9	0.05-0.09
$C_3H_2F_2Cl_4$	(HCFC-232)	16	0.008-0.10
$C_3H_2F_3Cl_3$	(HCFC-233)	18	0.007-0.23
$C_3H_2F_4Cl_2$	(HCFC-234)	16	0.01-0.28
$C_3H_2F_5Cl$	(HCFC-235)	9	0.03-0.52
$C_3H_3FCl_4$	(HCFC-241)	12	0.004-0.09
$C_3H_3F_2Cl_3$	(HCFC-242)	18	0.005-0.13
$C_3H_3F_3Cl_2$	(HCFC-243)	18	0.007-0.12
$C_3H_3F_4Cl$	(HCFC-244)	12	0.009-0.14
$C_3H_4FCl_3$	(HCFC-251)	12	0.001-0.01
$C_3H_4F_2Cl_2$	(HCFC-252)	16	0.005-0.04
$C_3H_4F_3Cl$	(HCFC-253)	12	0.003-0.03
$C_3H_5FCl_2$	(HCFC-261)	9	0.002-0.02
$C_3H_5F_2Cl$	(HCFC-262)	9	0.002-0.02
C_3H_6FCl	(HCFC-271)	5	0.001-0.03
Group II			
$CHFBr_2$		1	1.00
CHF_2Br	(HBFC-22B1)	1	0.74
CH_2FBr		1	0.73
C_2HFBr_4		2	0.3-0.8
$C_2HF_2Br_3$		3	0.5-1.8
$C_2HF_3Br_2$		3	0.4-1.6
C_2HF_4Br		2	0.7-1.2
$C_2H_2FBr_3$		3	0.1-1.1
$C_2H_2F_2Br_2$		4	0.2-1.5
$C_2H_2F_3Br$		3	0.7-1.6
$C_2H_3FBr_2$		3	0.1-1.7
$C_2H_3F_2Br$		3	0.2-1.1
C_2H_4FBr		2	0.07-0.1
C_3HFBr_6		5	0.3-1.5
$C_3HF_2Br_5$		9	0.2-1.9
$C_3HF_3Br_4$		12	0.3-1.8
$C_3HF_4Br_3$		12	0.5-2.2
$C_3HF_5Br_2$		9	0.9-2.0
C_3HF_6Br		5	0.7-3.3
$C_3H_2FBr_5$		9	0.1-1.9

Group	Substance	Number of isomers	Ozone-Depleting Potential*
$C_3H_2F_2Br_4$		16	0.2-2.1
$C_3H_2F_3Br_3$		18	0.2-5.6
$C_3H_2F_4Br_2$		16	0.3-7.5
$C_3H_2F_5Br$		8	0.9-1.4
$C_3H_3FBr_4$		12	0.08-1.9
$C_3H_3F_2Br_3$		18	0.1-3.1
$C_3H_3F_3Br_2$		18	0.1-2.5
$C_3H_3F_4Br$		12	0.3-4.4
$C_3H_4FBr_3$		12	0.03-0.3
$C_3H_4F_2Br_2$		16	0.1-1.0
$C_3H_4F_3Br$		12	0.07-0.8
$C_3H_5FBr_2$		9	0.04-0.4
$C_3H_5F_2Br$		9	0.07-0.8
C_3H_6FBr		5	0.02-0.7

* **Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as a single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.**

** **Identifies the most commercially viable substances with ODP values listed against them to be used for the purposes of the Protocol.**

ANNEX E
CONTROLLED SUBSTANCE

Group	Substance	Ozone-Depleting Potential
Group I CH_3Br	methyl bromide	0.6

ANNEX D*
A LIST OF PRODUCTS** CONTAINING CONTROLLED SUBSTANCES SPECIFIED IN ANNEX A

	Products	Customs code number
1.	Automobile and truck air conditioning units (whether incorporated in vehicles or not)	_____
2.	Domestic and commercial refrigeration and air conditioning/heat pump equipment***	_____
	e.g.	
	Refrigerators	_____
	Freezers	_____
	Dehumidifiers	_____
	Water coolers	_____
	Ice machines	_____
	Air conditioning and heat pump units	_____
3.	Aerosol products, except medical aerosols	_____
4.	Portable fire extinguisher	_____
5.	Insulation boards, panels and pipe covers	_____
6.	Pre-polymers	_____

* This Annex was adopted by the Third Meeting of the Parties in Nairobi, 21 June 1991 as required by paragraph 3 of Article 4 of the Protocol.

** Though not when transported in consignments of personal or household effects or in similar non-commercial situations normally exempted from customs attention.

*** When containing controlled substances in Annex A as a refrigerant and/or in insulating material of the product.

The 1987 Montreal Protocol on Substances That Deplete The Ozone Layer

as adjusted and amended by the eleventh Meeting of the Parties
(Beijing, 27 November – 3 December 1999)

The text of the adjustments to the Montreal Protocol, as adopted by consensus during the Eleventh Meeting of the Parties, is contained in the following paragraphs.

The Eleventh Meeting of the Parties decides:

Decision XI/1. Beijing Declaration on Renewed Commitment to the Protection of the Ozone Layer

To adopt the Beijing Declaration on Renewed Commitment on the Protection of the Ozone Layer, as contained in annex I to the report of the Eleventh Meeting of the Parties;

Decision XI/2. Further adjustments with regard to Annex A substances

To adopt, in accordance with the procedure laid down in paragraph 9 of Article 2 of the Montreal Protocol and on the basis of the assessments made pursuant to Article 6 of the Protocol, the adjustments regarding the controlled substances in Annex A to the Protocol, as set out in annex II to the report of the Eleventh Meeting of the Parties;

Decision XI/3. Further adjustments with regard to Annex B substances

To adopt, in accordance with the procedure laid down in paragraph 9 of Article 2 of the Montreal Protocol and on the basis of the assessments made pursuant to Article 6 of the Protocol, the adjustments regarding the controlled substances in Annex B to the Protocol, as set out in annex III to the report of the Eleventh Meeting of the Parties;

Decision XI/4. Further adjustments with regard to Annex E substance

To adopt, in accordance with the procedure laid down in paragraph 9 of Article 2 of the Montreal Protocol and on the basis of the assessments made pursuant to Article 6 of the Protocol, the adjustments regarding the controlled substance in Annex E to the Protocol, as set out in annex IV to the report of the Eleventh Meeting of the Parties;

Decision XI/5. Further Amendment of the Montreal Protocol

To adopt, in accordance with the procedure laid down in paragraph 4 of Article 9 of the Vienna Convention for the Protection of the Ozone Layer, the Amendment to the Montreal Protocol as set out in annex V to the report of the Eleventh Meeting of the Parties.

Annex I

BEIJING DECLARATION ON RENEWED COMMITMENT TO THE PROTECTION OF THE OZONE LAYER

We, the Ministers of the Environment and heads of delegations of the Parties to the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer,

Having participated, at the invitation of the Government of the People's Republic of China, in the fifth meeting of the Parties to the Vienna Convention for the Protection of the Ozone Layer and the Eleventh Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, from 29 November to 3 December 1999, in Beijing, China,

Having held in-depth discussions on important issues relating to the protection of the ozone layer and the implementation of the Convention and the Protocol,

Recalling the achievements made to date in this field while earnestly seeking to address the challenges we will face in the future,

Reaffirming, at the threshold of a new millennium, our commitment to the protection of the ozone layer through a serious implementation of the Vienna Convention and the Montreal Protocol in order to achieve the phasing-out of ozone-depleting substances to protect the environmental security of present and future generations,

Declare:

1. That we are pleased to note that major progress has been achieved in the implementation of the Montreal Protocol in the past decade since the Helsinki Declaration was adopted, as testified by the fact that the Parties not operating under paragraph 1 of Article 5 ceased the production and consumption of CFCs from 1 January 1996, while the Parties operating under paragraph 1 of Article 5 committed themselves to freezing their production and consumption of CFCs at the average level of the period 1995-1997, from 1 July 1999;

2. That we are further pleased to note that the reduction and phase-out of other ozone-depleting substances are also proceeding in line with or in some cases faster than the control measures we have agreed upon in the past Meetings of the Parties and welcome the further progress agreed upon at this Meeting of the Parties;

3. That we take this opportunity to express our sincere appreciation for the efforts made towards this progress by Governments, international organizations, industry, experts and other relevant groups;

4. That we are fully aware, however, that we cannot afford to rest on our laurels, since scientists have informed us that the ozone hole has reached record proportions and the ozone layer recovery is a long way from being achieved;

5. That we are keenly aware that the Parties will have to face new challenges, as we have now entered a new period of substantive reduction of ozone-depleting substances from 1 July 1999 and, therefore, must ensure the continuation and development of our significant financial and technical cooperation under paragraph 1 of Article 10 of the Montreal Protocol, to enable all countries to take full advantage of benefits offered by the latest technological advances, including the continuation of the initiatives to ensure funding for the low-volume-consuming countries;

6. That we therefore appeal to all of the Parties to demonstrate a stronger political will and take more effective action to fulfil the obligations under the Vienna Convention and the Montreal Protocol, and to urge all States that have not yet done so to ratify, approve or accede to the Vienna Convention and the Montreal Protocol and its Amendments;

7. That we also appeal to the relevant Parties to take all appropriate measures to address illegal trade in ozone-depleting substances and to safeguard the achievements attained to date;

8. That we call upon the Parties not operating under paragraph 1 of Article 5 to continue to maintain adequate funding and to promote the expeditious transfer of environmentally sound technologies, under the Montreal Protocol, to the Parties operating under paragraph 1 of Article 5, to help them fulfil their obligations; and also call upon Parties operating under paragraph 1 of article 5 to take all appropriate measures necessary to secure the efficient use of the resources provided by the Parties not operating under paragraph 1 of Article 5;

9. That we further appeal to the international community to demonstrate more concern for the issues of ozone layer protection and for the protection of the global atmosphere in general, taking into account the need to promote social and economic development in all countries.

Annex II

ADJUSTMENTS TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

Adjustments relating to controlled substances in Annex A

A. Article 2A: CFCs

1. The third sentence of paragraph 4 of Article 2A of the Protocol shall be replaced by the following sentence:

   However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by a quantity equal to the annual average of its production of the controlled substances in Group I of Annex A for basic domestic needs for the period 1995 to 1997 inclusive.

2. The following paragraphs shall be added after paragraph 4 of Article 2A of the Protocol:

   5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2003 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed eighty per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.

   6. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed fifty per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.

   7. Each Party shall ensure that for the twelve-month period commencing on 1 January 2007 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed fifteen per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.

   8. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

   9. For the purposes of calculating basic domestic needs under paragraphs 4 to 8 of this Article, the calculation of the annual average of production by a Party includes any production entitlements that it has transferred in accordance with paragraph 5 of Article 2, and excludes any production entitlements that it has acquired in accordance with paragraph 5 of Article 2.

B. Article 2B: Halons

1. The third sentence of paragraph 2 of Article 2B of the Protocol shall be replaced by the following sentence:
   However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may, until 1 January 2002 exceed that limit by up to fifteen per cent of its calculated level of production in 1986; thereafter, it may exceed that limit by a quantity equal to the annual average of its production of the controlled substances in Group II of Annex A for basic domestic needs for the period 1995 to 1997 inclusive.

2. The following paragraphs shall be added after paragraph 2 of Article 2B of the Protocol:

3. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group II of Annex A for the basic domestic needs of the Parties operating under para-

graph 1 of Article 5 does not exceed fifty per cent of the annual average of its production of those substances for basic domestic needs for the period 1995 to 1997 inclusive.

4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group II of Annex A for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

Annex III

ADJUSTMENTS TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

Adjustments relating to controlled substances in Annex B

Article 2C: Other fully halogenated CFCs

1. The third sentence of paragraph 3 of Article 2C of the Protocol shall be replaced by the following sentence:

   However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may, until 1 January 2003 exceed that limit by up to fifteen per cent of its calculated level of production in 1989; thereafter, it may exceed that limit by a quantity equal to eighty per cent of the annual average of its production of the controlled substances in Group I of Annex B for basic domestic needs for the period 1998 to 2000 inclusive.

2. The following paragraphs shall be added after paragraph 3 of Article 2C of the Protocol:

   4. Each Party shall ensure that for the twelve-month period commencing on 1 January 2007 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex B for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed fifteen per cent of the annual average of its production of those substances for basic domestic needs for the period 1998 to 2000 inclusive.

   5. Each Party shall ensure that for the twelve-month period commencing on 1 January 2010 and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex B for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

Annex IV

ADJUSTMENTS TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

Adjustments relating to the controlled substance in Annex E

Article 2H: Methyl bromide

1. The third sentence of paragraph 5 of Article 2H of the Protocol shall be replaced by the following sentence:

   However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may, until 1 January 2002 exceed that limit by up to fifteen per cent of its calculated level of production in 1991; thereafter, it may exceed that limit by a quantity equal to the annual average of its production of the controlled substance in Annex E for basic domestic needs for the period 1995 to 1998 inclusive.

2. The following paragraphs shall be added after paragraph 5 of Article 2H of the Protocol:

   5 *bis*. Each Party shall ensure that for the twelve-month period commencing on 1 January 2005 and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed eighty per cent of the annual average of its production of the substance for basic domestic needs for the period 1995 to 1998 inclusive.

   5 *ter*. Each Party shall ensure that for the twelve-month period commencing on 1 January 2015 and in each twelve-month period thereafter, its calculated level of production of the controlled substance in Annex E for the basic domestic needs of the Parties operating under paragraph 1 of Article 5 does not exceed zero.

Annex V

AMENDMENT TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

Article 1: Amendment

A. Article 2, paragraph 5

In paragraph 5 of Article 2 of the Protocol, for the words:
Articles 2A to 2E
there shall be substituted:
Articles 2A to 2F

B. Article 2, paragraphs 8(a) and 11

In paragraphs 8(a) and 11 of Article 2 of the Protocol, for the words:
Articles 2A to 2H
there shall be substituted:
Articles 2A to 2I

C. Article 2F, paragraph 8

The following paragraph shall be added after paragraph 7 of Article 2F of the Protocol:

Each Party producing one or more of these substances shall ensure that for the twelve-month period commencing on 1 January 2004, and in each twelve-month period thereafter, its calculated level of production of the controlled substances in Group I of Annex C does not exceed, annually, the average of:

The sum of its calculated level of consumption in 1989 of the controlled substances in Group I of Annex C and two point eight per cent of its calculated level of consumption in 1989 of the controlled substances in Group 1 of Annex A; and

The sum of its calculated level of production in 1989 of the controlled substances in Group I of Annex C and two point eight per cent of its calculated level of production in 1989 of the controlled substances in Group I of Annex A.

However, in order to satisfy the basic domestic needs of the Parties operating under paragraph 1 of Article 5, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production of the controlled substances in Group I of Annex C as defined above.

D. Article 2I

The following Article shall be inserted after Article 2H of the Protocol:

Article 2I: Bromochloromethane

Each Party shall ensure that for the twelve-month period commencing on 1 January 2002, and in each twelve-month period thereafter, its calculated level of consumption and production of the controlled substance in Group III of Annex C does not exceed zero. This paragraph will apply save to the extent that the Parties decide to permit the level of production or consumption that is necessary to satisfy uses agreed by them to be essential.

E. Article 3

In Article 3 of the Protocol, for the words:
Articles 2, 2A to 2H
there shall be substituted:
Articles 2, 2A to 2I

F. Article 4, paragraphs 1 quin. and 1 sex.

The following paragraphs shall be added to Article 4 of the Protocol after paragraph 1 *qua*:

1 *quin*. As of 1 January 2004, each Party shall ban the import of the controlled substances in Group I of Annex C from any State not party to this Protocol.

1 *sex*. Within one year of the date of entry into force of this paragraph, each Party shall ban the import of the controlled substance in Group III of Annex C from any State not party to this Protocol.

G. Article 4, paragraphs 2 quin. and 2 sex.

The following paragraphs shall be added to Article 4 of the Protocol after paragraph 2 *qua*:

2 *quin*. As of 1 January 2004, each Party shall ban the export of the controlled substances in Group I of Annex C to any State not party to this Protocol.

2 *sex*. Within one year of the date of entry into force of this paragraph, each Party shall ban the export of the controlled substance in Group III of Annex C to any State not party to this Protocol.

H. Article 4, paragraphs 5 to 7

In paragraphs 5 to 7 of Article 4 of the Protocol, for the words:

Annexes A and B, Group II of Annex C and Annex E

there shall be substituted:

Annexes A, B, C and E

I. Article 4, paragraph 8

In paragraph 8 of Article 4 of the Protocol, for the words:

Articles 2A to 2E, Articles 2G and 2H

there shall be substituted:

Articles 2A to 2I

J. Article 5, paragraph 4

In paragraph 4 of Article 5 of the Protocol, for the words:

Articles 2A to 2H

there shall be substituted:

Articles 2A to 2I

K. Article 5, paragraphs 5 and 6

In paragraphs 5 and 6 of Article 5 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted:

Articles 2A to 2E and Article 2I

L. Article 5, paragraph 8 ter (a)

The following sentence shall be added at the end of subparagraph 8 *ter* (a) of Article 5 of the Protocol:

As of 1 January 2016 each Party operating under paragraph 1 of this Article shall comply with the control measures set out in paragraph 8 of Article 2F and, as the basis for its compliance with these control measures, it shall use the average of its calculated levels of production and consumption in 2015;

M. Article 6

In Article 6 of the Protocol, for the words:

Articles 2A to 2H

there shall be substituted:

Articles 2A to 2I

N. Article 7, paragraph 2

In paragraph 2 of Article 7 of the Protocol, for the words:

Annexes B and C

there shall be substituted:

Annex B and Groups I and II of Annex C

O. Article 7, paragraph 3

The following sentence shall be added after the first sentence of paragraph 3 of Article 7 of the Protocol:

Each Party shall provide to the Secretariat statistical data on the annual amount of the controlled substance listed in Annex E used for quarantine and pre-shipment applications.

P. Article 10

In paragraph 1 of Article 10 of the Protocol, for the words:

Articles 2A to 2E

there shall be substituted:

Articles 2A to 2E and Article 2I

Q. Article 17

In Article 17 of the Protocol, for the words:

Articles 2A to 2H

there shall be substituted:

Articles 2A to 2I

R. Annex C

The following group shall be added to Annex C to the Protocol:

Group	Substance	Number Isomers	Ozone-Depleting Potential
Group III			
CH_2BrCl	bromochloromethane	1	0.12

ARTICLE 2: RELATIONSHIP TO THE 1997 AMENDMENT

No State or regional economic integration organization may deposit an instrument of ratification, acceptance or approval of or accession to this Amendment unless it has previously, or simultaneously, deposited such an instrument to the Amendment adopted at the Ninth Meeting of the Parties in Montreal, 17 September 1997.

ARTICLE 3: ENTRY INTO FORCE

1. This Amendment shall enter into force on 1 January 2001, provided that at least twenty instruments of ratification, acceptance or approval of the Amendment have been deposited by States or regional economic integration organizations that are Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer. In the event that this condition has not been fulfilled by that date, the Amendment shall enter into force on the ninetieth day following the date on which it has been fulfilled.

2. For the purposes of paragraph 1, any such instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

3. After the entry into force of this Amendment, as provided under paragraph 1, it shall enter into force for any other Party to the Protocol on the ninetieth day following the date of deposit of its instrument of ratification, acceptance or approval.

BASEL CONVENTION

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

TEXT OF THE CONVENTION

PREAMBLE

The Parties to this Convention,

Aware of the risk of damage to human health and the environment caused by hazardous wastes and other wastes and the transboundary movement thereof,

Mindful of the growing threat to human health and the environment posed by the increased generation and complexity, and transboundary movement of hazardous wastes and other wastes,

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

Convinced that States should take necessary measures to ensure that the management of hazardous wastes and other wastes including their transboundary movement and disposal is consistent with the protection of human health and the environment whatever the place of their disposal,

Noting that States should ensure that the generator should carry out duties with regard to the transport and disposal of hazardous wastes and other wastes in a manner that is consistent with the protection of the environment, whatever the place of disposal,

Fully recognizing that any State has the sovereign right to ban the entry or disposal of foreign hazardous wastes and other wastes in its territory,

Recognizing also the increasing desire for the prohibition of transboundary movements of hazardous wastes and their disposal in other States, especially developing countries,

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

Aware also that transboundary movements of such wastes from the State of their generation to any other State should be permitted only when conducted under conditions which do not endanger human health and the environment, and under conditions in conformity with the provisions of this Convention,

Considering that enhanced control of transboundary movement of hazardous wastes and other wastes will act as an incentive for their environmentally sound management and for the reduction of the volume of such transboundary movement,

Convinced that States should take measures for the proper exchange of information on and control of the transboundary movement of hazardous wastes and other wastes from and to those States,

Noting that a number of international and regional agreements have addressed the issue of protection and preservation of the environment with regard to the transit of dangerous goods,

Taking into account the Declaration of the United Nations Conference on the Human Environment (Stockholm, 1972), the Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes adopted by the Governing Council of the United Nations Environment Programme (UNEP) by decision 14/30 of 17 June 1987, the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods (formulated in 1957 and updated biennially), relevant recommendations, declarations, instruments and regulations adopted within the United Nations system and the work and studies done within other international and regional organizations,

Mindful of the spirit, principles, aims and functions of the World Charter for Nature adopted by the General Assembly of the United Nations at its thirty-seventh session (1982) as the rule of ethics in respect of the protection of the human environment and the conservation of natural resources,

Affirming that States are responsible for the fulfilment of their international obligations concerning the pro-

tection of human health and protection and preservation of the environment, and are liable in accordance with international law,

Recognizing that in the case of a material breach of the provisions of this Convention or any protocol thereto the relevant international law of treaties shall apply,

Aware of the need to continue the development and implementation of environmentally sound low-waste technologies, recycling options, good house- keeping and management systems with a view to reducing to a minimum the generation of hazardous wastes and other wastes,

Aware also of the growing international concern about the need for stringent control of transboundary movement of hazardous wastes and other wastes, and of the need as far as possible to reduce such movement to a minimum,

Concerned about the problem of illegal transboundary traffic in hazardous wastes and other wastes,

Taking into account also the limited capabilities of the developing countries to manage hazardous wastes and other wastes,

Recognizing the need to promote the transfer of technology for the sound management of hazardous wastes and other wastes produced locally, particularly to the developing countries in accordance with the spirit of the Cairo Guidelines and decision 14/16 of the Governing Council of UNEP on Promotion of the transfer of environmental protection technology,

Recognizing also that hazardous wastes and other wastes should be transported in accordance with relevant international conventions and recommendations

Convinced also that the transboundary movement of hazardous wastes and other wastes should be permitted only when the transport and the ultimate disposal of such wastes is environmentally sound, and

Determined to protect, by strict control, human health and the environment against the adverse effects which may result from the generation and management of hazardous wastes and other wastes,

HAVE AGREED AS FOLLOWS:

ARTICLE 1: SCOPE OF THE CONVENTION

1. The following wastes that are subject to transboundary movement shall be "hazardous wastes" for the purposes of this Convention:
   (a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and
   (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.

2. Wastes that belong to any category contained in Annex II that are subject to transboundary movement shall be "other wastes" for the purposes of this Convention.

3. Wastes which, as a result of being radioactive, are subject to other international control systems, including international instruments, applying specifically to radioactive materials, are excluded from the scope of this Convention.

4. Wastes which derive from the normal operations of a ship, the discharge of which is covered by another international instrument, are excluded from the scope of this Convention.

ARTICLE 2: DEFINITIONS

For the purposes of this Convention:

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

2. "Management" means the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites;

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

4. "Disposal" means any operation specified in Annex IV to this Convention;

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

6. "Competent authority" means one governmental authority designated by a Party to be responsible, within such geographical areas as the Party may

think fit, for receiving the notification of a transboundary movement of hazardous wastes or other wastes, and any information related to it, and for responding to such a notification, as provided in Article 6;

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

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

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

10. "State of export" means a Party from which a transboundary movement of hazardous wastes or other wastes is planned to be initiated or is initiated;

11. "State of import" means a Party to which a transboundary movement of hazardous wastes or other wastes is planned or takes place for the purpose of disposal therein or for the purpose of loading prior to disposal in an area not under the national jurisdiction of any State;

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

13. "States concerned" means Parties which are States of export or import, or transit States, whether or not Parties;

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

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

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

17. "Carrier" means any person who carries out the transport of hazardous wastes or other wastes;

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

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

20. "Political and/or economic integration organization" means an organization constituted by sovereign States to which its member States have transferred competence in respect of matters governed by this Convention and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve, formally confirm or accede to it;

21. "Illegal traffic" means any transboundary movement of hazardous wastes or other wastes as specified in Article 9.

ARTICLE 3: NATIONAL DEFINITIONS OF HAZARDOUS WASTES

1. Each Party 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 Annexes I and II, 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.

3. The Secretariat shall forthwith inform all Parties of the information it has received pursuant to paragraphs 1 and 2.

4. Parties shall be responsible for making the information transmitted to them by the Secretariat under paragraph 3 available to their exporters.

ARTICLE: GENERAL OBLIGATIONS

1. (a) Parties exercising their right to prohibit the import of hazardous wastes or other wastes for disposal shall inform the other Parties of their decision pursuant to Article 13.
   (b) Parties shall prohibit or shall not permit the export of hazardous wastes and other wastes

to the Parties which have prohibited the import of such wastes, when notified pursuant to subparagraph (a) above.

(c) Parties shall prohibit or shall not permit the export of hazardous wastes and other 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.

2. Each Party shall take the appropriate measures to:

(a) Ensure that the generation of hazardous wastes and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects;

(b) Ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within it, whatever the place of their disposal;

(c) Ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment;

(d) Ensure that the transboundary movement of hazardous wastes and other 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;

(e) Not allow the export of hazardous wastes or other wastes to a State or group of States belonging to an economic and/or political integration organization that are Parties, particularly developing countries, which have prohibited by their legislation all 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.

(f) Require that information about a proposed transboundary movement of hazardous wastes and other wastes be provided to the States concerned, according to Annex V A, to state clearly the effects of the proposed movement on human health and the environment;

(g) Prevent the import of hazardous wastes and other wastes if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner;

(h) Co-operate in activities with other Parties and interested organizations, directly and through the Secretariat, including the dissemination of information on the transboundary movement of hazardous wastes and other wastes, in order to improve the environmentally sound management of such wastes and to achieve the prevention of illegal traffic;

3. The Parties consider that illegal traffic in hazardous wastes or other wastes is criminal.

4. Each Party shall take appropriate legal, administrative and other measures to implement and enforce the provisions of this Convention, including measures to prevent and punish conduct in contravention of the Convention.

5. A Party shall not permit hazardous wastes or other wastes to be exported to a non- Party or to be imported from a non-Party.

6. The Parties agree not to allow the export of hazardous wastes or other wastes for disposal within the area south of 60 degrees South latitude, whether or not such wastes are subject to transboundary movement.

7. Furthermore, each Party shall:

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

(b) Require that hazardous wastes and other wastes that are to be the subject of a transboundary movement be 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;

(c) Require that hazardous wastes and other wastes be accompanied by a movement document from the point at which a transboundary movement commences to the point of disposal.

8. Each Party shall require that hazardous wastes or other wastes, to be exported, are managed in an environmentally sound manner in the State of import or elsewhere. Technical guidelines for the environmentally sound management of wastes subject to this Convention shall be decided by the Parties at their first meeting.

9. Parties shall take the appropriate measures to ensure that the transboundary movement of hazardous wastes and other wastes only be allowed if:
   (a) 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
   (b) The wastes in question are required as a raw material for recycling or recovery industries in the State of import; or
   (c) 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.

10. The obligation under this Convention of States in which hazardous wastes and other wastes are generated to require that those wastes are managed in an environmentally sound manner may not under any circumstances be transferred to the States of import or transit.

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 better to protect human health and the environment.

12. Nothing in this Convention shall affect in any way the sovereignty of States over their territorial sea established in accordance with international law, and the sovereign rights and the jurisdiction which States have in their exclusive economic zones and their continental shelves in accordance with international law, and the exercise by ships and aircraft of all States of navigational rights and freedoms as provided for in international law and as reflected in relevant international instruments.

13. Parties shall undertake to review periodically the possibilities for the reduction of the amount and/or the pollution potential of hazardous wastes and other wastes which are exported to other States, in particular to developing countries.

ARTICLE: DESIGNATION OF COMPETENT AUTHORITIES AND FOCAL POINT

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

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

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

3. Inform the Secretariat, within one month of the date of decision, of any changes regarding the designation made by them under paragraph 2 above.

ARTICLE: TRANSBOUNDARY MOVEMENT BETWEEN PARTIES

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

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

3. The State of export shall not allow the generator or exporter to commence the transboundary movement until it has received written confirmation that:
   (a) The notifier has received the written consent of the State of import; and
   (b) The notifier has received from the State of import confirmation of the existence of a contract between the exporter and the disposer specifying environmentally sound management of the wastes in question.

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

sent, either generally or under specific conditions, for transit transboundary movements of hazardous wastes or other wastes, or modifies its requirements in this respect, it shall forthwith inform the other Parties of its decision pursuant to Article 13. In this latter case, if no response is received by the State of export within 60 days of the receipt of a given notification by the State of transit, the State of export may allow the export to proceed through the State of transit.

5. In the case of a transboundary movement of wastes where the wastes are legally defined as or considered to be hazardous wastes only:
   (a) By the State of export, the requirements of paragraph 9 of this Article that apply to the importer or disposer and the State of import shall apply mutatis mutandis to the exporter and State of export, respectively;
   (b) By the State of import, or by the States of import and transit which are Parties, the requirements of paragraphs 1, 3, 4 and 6 of this Article that apply to the exporter and State of export shall apply mutatis mutandis to the importer or disposer and State of import, respectively; or
   (c) By any State of transit which is a Party, the provisions of paragraph 4 shall apply to such State.

6. The State of export may, subject to the written consent of the States concerned, allow the generator or the exporter to use a general notification where hazardous wastes or other wastes having the same physical and chemical characteristics are shipped regularly to the same disposer via the same customs office of exit of the State of export via the same customs office of entry of the State of import, and, in the case of transit, via the same customs office of entry and exit of the State or States of transit.

7. The States concerned may make their written consent to the use of the general notification referred to in paragraph 6 subject to the supply of certain information, such as the exact quantities or periodical lists of hazardous wastes or other wastes to be shipped.

8. The general notification and written consent referred to in paragraphs 6 and 7 may cover multiple shipments of hazardous wastes or other wastes during a maximum period of 12 months.

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

10. The notification and response required by this Article shall be transmitted to the competent authority of the Parties concerned or to such governmental authority as may be appropriate in the case of non-Parties.

11. Any transboundary movement of hazardous wastes or other wastes shall be covered by insurance, bond or other guarantee as may be required by the State of import or any State of transit which is a Party.

ARTICLE 7: TRANSBOUNDARY MOVEMENT FROM A PARTY THROUGH STATES WHICH ARE NOT PARTIES

Paragraph 1 of Article 6 of the Convention shall apply mutatis mutandis to transboundary movement of hazardous wastes or other wastes from a Party through a State or States which are not Parties.

ARTICLE 8: DUTY TO RE-IMPORT

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

ARTICLE 9: ILLEGAL TRAFFIC

1. For the purpose of this Convention, any transboundary movement of hazardous wastes or other wastes:

   (a) without notification pursuant to the provisions of this Convention to all States concerned; or

(b) without the consent pursuant to the provisions of this Convention of a State concerned; or

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

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

(e) that results in deliberate disposal (e.g. dumping) of hazardous wastes or other wastes in contravention of this Convention and of general principles of international law, shall be deemed to be illegal traffic.

2. In case of a transboundary movement of hazardous wastes or other wastes deemed to be illegal traffic as the result of conduct on the part of the exporter or generator, the State of export shall ensure that the wastes in question are:

(a) taken back by the exporter or the generator or, if necessary, by itself into the State of export, or, if impracticable,

(b) are otherwise disposed of in accordance with the provisions of this Convention, within 30 days from the time the State of export has been informed about the illegal traffic or such other period of time as States concerned may agree. To this end the Parties concerned shall not oppose, hinder or prevent the return of those wastes to the State of export.

3. In the case of a transboundary movement of hazardous wastes or other wastes deemed to be illegal traffic as the result of conduct on the part of the importer or disposer, the State of import shall ensure that the wastes in question are disposed of in an environmentally sound manner by the importer or disposer or, if necessary, by itself within 30 days from the time the illegal traffic has come to the attention of the State of import or such other period of time as the States concerned may agree. To this end, the Parties concerned shall co-operate, as necessary, in the disposal of the wastes in an environmentally sound manner.

4. In cases where the responsibility for the illegal traffic cannot be assigned either to the exporter or generator or to the importer or disposer, the Parties concerned or other Parties, as appropriate, shall ensure, through co-operation, that the wastes in question are disposed of as soon as possible in an environmentally sound manner either in the State of export or the State of import or elsewhere as appropriate.

5. Each Party shall introduce appropriate national/domestic legislation to prevent and punish illegal traffic. The Parties shall co-operate with a view to achieving the objects of this Article.

ARTICLE 10: INTERNATIONAL CO-OPERATION

1. The Parties shall co-operate with each other in order to improve and achieve environmentally sound management of hazardous wastes and other wastes.

2. To this end, the Parties shall:

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

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

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

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

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

3. The Parties shall employ appropriate means to cooperate in order to assist developing countries in the implementation of subparagraphs a, b, c and d of paragraph 2 of Article 4.

4. Taking into account the needs of developing countries, co-operation between Parties and the competent international organizations is encouraged to promote, inter alia, public awareness, the development of sound management of hazardous wastes and other wastes and the adoption of new low-waste technologies.

ARTICLE 11: BILATERAL, MULTILATERAL AND REGIONAL AGREEMENTS

1. Notwithstanding the provisions of Article 4 paragraph 5, Parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non- Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries.

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

ARTICLE 12: CONSULTATIONS ON LIABILITY

The Parties shall co-operate with a view to adopting, as soon as practicable, a protocol setting out appropriate rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes.

ARTICLE 13: TRANSMISSION OF INFORMATION

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

2. The Parties shall inform each other, through the Secretariat, of:
   (a) Changes regarding the designation of competent authorities and/or focal points, pursuant to Article 5;
   (b) Changes in their national definition of hazardous wastes, pursuant to Article 3; and, as soon as possible,
   (c) Decisions made by them not to consent totally or partially to the import of hazardous wastes or other wastes for disposal within the area under their national jurisdiction;
   (d) Decisions taken by them to limit or ban the export of hazardous wastes or other wastes;
   (e) Any other information required pursuant to paragraph 4 of this Article.

3. The Parties, consistent with national laws and regulations, shall transmit, through the Secretariat, to the Conference of the Parties established under Article 15, before the end of each calendar year, a report on the previous calendar year, containing the following information:
   (a) Competent authorities and focal points that have been designated by them pursuant to Article 5;
   (b) Information regarding transboundary movements of hazardous wastes or other wastes in which they have been involved, including:
   (i) The amount of hazardous wastes and other wastes exported, their category, characteristics, destination, any transit country and disposal method as stated on the response to notification;
   (ii) The amount of hazardous wastes and other wastes imported, their category, characteristics, origin, and disposal methods;
   (iii) Disposals which did not proceed as intended;
   (iv) Efforts to achieve a reduction of the amount of hazardous wastes or other wastes subject to transboundary movement;
   (c) Information on the measures adopted by them in implementation of this Convention;
   (d) Information on available qualified statistics which have been compiled by them on the effects on human health and the environment of the generation, transportation and disposal of hazardous wastes or other wastes;
   (e) Information concerning bilateral, multilateral and regional agreements and arrangements entered into pursuant to Article 11 of this Convention;
   (f) Information on accidents occurring during the transboundary movement and disposal of hazardous wastes and other wastes and on the measures undertaken to deal with them;
   (g) Information on disposal options operated within the area of their national jurisdiction;
   (h) Information on measures undertaken for development of technologies for the reduction and/or elimination of production of hazardous wastes and other wastes; and

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

4. The Parties, consistent with national laws and regulations, shall ensure that copies of each notification concerning any given transboundary movement of hazardous wastes or other wastes, and the response to it, are sent to the Secretariat when a Party considers that its environment may be affected by that transboundary movement has requested that this should be done.

ARTICLE 14: FINANCIAL ASPECTS

1. The Parties agree that, according to the specific needs of different regions and subregions, regional or sub-regional centres for training and technology transfers regarding the management of hazardous wastes and other wastes and the minimization of their generation should be established. The Parties shall decide on the establishment of appropriate funding mechanisms of a voluntary nature.
2. The Parties shall consider the establishment of a revolving fund to assist on an interim basis in case of emergency situations to minimize damage from accidents arising from transboundary movements of hazardous wastes and other wastes or during the disposal of those wastes.

ARTICLE 15: CONFERENCE OF THE PARTIES

1. A Conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the Executive Director of UNEP not later than one year after the entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting.

2. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to them by the Secretariat, it is supported by at least one third of the Parties.

3. The Conference of the Parties shall by consensus agree upon and adopt rules of procedure for itself and for any subsidiary body it may establish, as well as financial rules to determine in particular the financial participation of the Parties under this Convention.

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

5. The Conference of the Parties shall keep under continuous review and evaluation the effective implementation of this Convention, and, in addition, shall:
   (a) Promote the harmonization of appropriate policies, strategies and measures for minimizing harm to human health and the environment by hazardous wastes and other wastes;
   (b) Consider and adopt, as required, amendments to this Convention and its annexes, taking into consideration, inter alia, available scientific, technical, economic and environmental information;
   (c) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention in the light of experience gained in its operation and in the operation of the agreements and arrangements envisaged in Article 11;
   (d) Consider and adopt protocols as required; and
   (e) Establish such subsidiary bodies as are deemed necessary for the implementation of this Convention.

6. The United Nations, its specialized agencies, as well as any State not party to this Convention, may be represented as observers at meetings of the Conference of the Parties. Any other body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to hazardous wastes or other wastes which has informed the Secretariat of its wish to be represented as an observer at a meeting of the Conference of the Parties, may be admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the conference of the Parties.

7. The Conference of the Parties shall undertake three years after the entry into force of this Convention, and at least every six years thereafter, an evaluation of its effectiveness and, if deemed necessary, to consider the adoption of a complete or partial ban of transboundary movements of hazardous wastes and other wastes in light of the latest scientific, environmental, technical and economic information.

ARTICLE 16: SECRETARIAT

1. The functions of the Secretariat shall be:
   (a) To arrange for and service meetings provided for in Articles 15 and 17;
   (b) To prepare and transmit reports based upon information received in accordance with Articles 3, 4, 6, 11 and 13 as well as upon information derived from meetings of subsidiary bodies established under Article 15 as well as upon, as appropriate, information provided by relevant intergovernmental and non-governmental entities;
   (c) To prepare reports on its activities carried out in implementation of its functions under this Convention and present them to the Conference of the Parties;
   (d) To ensure the necessary coordination with relevant international bodies, and in particular to enter into such administrative and contractual arrangements as may be required for the effective discharge of its functions;
   (e) To communicate with focal points and competent authorities established by the Parties in accordance with Article 5 of this Convention;
   (f) To compile information concerning authorized national sites and facilities of Parties available for the disposal of their hazardous wastes and other wastes and to circulate this information among Parties;
   (g) To receive and convey information from and to Parties on;
   — sources of technical assistance and training;
   — available technical and scientific know-how;
   — sources of advice and expertise; and
   — availability of resources with a view to assisting them, upon request, in such areas as:
   — the handling of the notification system of this Convention;
   — the management of hazardous wastes and other wastes;
   — environmentally sound technologies relating to hazardous wastes and other wastes, such as low- and non-waste technology;
   — the assessment of disposal capabilities and sites;
   — the monitoring of hazardous wastes and other wastes; and
   — emergency responses;
   (h) To provide Parties, upon request, with information on consultants or consulting firms having the necessary technical competence in the field, which can assist them to examine a notification for a transboundary movement, the concurrence of a shipment of hazardous wastes or other wastes with the relevant notification, and/or the fact that the proposed disposal facilities for hazardous wastes or other wastes are environmentally sound, when they have reason to believe that the wastes in question will not be managed in an environmentally sound manner. Any such examination would not be at the expense of the Secretariat;
   (i) To assist Parties upon request in their identification of cases of illegal traffic and to circulate immediately to the Parties concerned any information it has received regarding illegal traffic;
   (j) To co-operate with Parties and with relevant and competent international organizations and agencies in the provision of experts and equipment for the purpose of rapid assistance to States in the event of an emergency situation; and
   (k) To perform such other functions relevant to the purposes of this Convention as may be determined by the Conference of the Parties.

2. The secretariat functions will be carried out on an interim basis by UNEP until the completion of the first meeting of the Conference of the Parties held pursuant to Article 15.

3. At its first meeting, the Conference of the Parties shall designate the Secretariat from among those existing competent intergovernmental organizations which have signified their willingness to carry out the secretariat functions under this Convention. At this meeting, the Conference of the Parties shall also evaluate the implementation by the interim Secretariat of the functions assigned to it, in particular under paragraph 1 above, and decide upon the structures appropriate for those functions.

ARTICLE 17: AMENDMENT OF THE CONVENTION

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

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the protocol in question. The text of any proposed amendment to this Convention or to any protocol, except as may otherwise be provided in such protocol, shall be communicated to the Parties by the Secretariat at least six months before the meeting at which it is pro-

posed for adoption. The Secretariat shall also communicate proposed amendments to the Signatories to this Convention for information.

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

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

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

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

ARTICLE 18: ADOPTION AND AMENDMENT OF ANNEXES

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

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

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

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

   (c) On the expiry of six months from the date of the circulation of the communication by the Depositary, the annex shall become effective for all Parties to this Convention or to any protocol concerned, which have not submitted a notification in accordance with the provision of subparagraph (b) above.

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

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

ARTICLE 19: VERIFICATION

Any Party which has reason to believe that another Party is acting or has acted in breach of its obligations under this Convention may inform the Secretariat thereof, and in such an event, shall simultaneously and immediately inform, directly or through the Secretariat, the Party against whom the allegations are made. All relevant information should be submitted by the Secretariat to the Parties.

ARTICLE 20: SETTLEMENT OF DISPUTES

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

2. If the Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute, if the parties to the dispute agree, shall be submitted to the International Court of Justice or to arbitration under the conditions set out in Annex VI on Arbitration. However, failure to reach common agreement on submission of the dispute to the International Court of Justice or to arbitration shall not absolve the Parties from the responsibility of continuing to seek to resolve it by the means referred to in paragraph 1.
3. When ratifying, accepting, approving, formally confirming or acceding to this Convention, or at any time thereafter, a State or political and/or economic integration organization may declare that it recognizes as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation:
   (a) submission of the dispute to the International Court of Justice; and/or
   (b) arbitration in accordance with the procedures set out in Annex VI. Such declaration shall be notified in writing to the Secretariat which shall communicate it to the Parties.

ARTICLE 21:SIGNATURE

This Convention shall be open for signature by States, by Namibia represented by the United Nations Council for Namibia and by political and/or economic integration organizations, in Basel on 22 March 1989, at the Federal Department of Foreign Affairs of Switzerland in Berne from 23 March 1989 to 30 June 1989, and at United Nations Headquarters in New York from 1 July 1989 to 22 March 1990.

ARTICLE 22: RATIFICATION, ACCEPTANCE, FORMAL CONFIRMATION OR APPROVAL

1. This Convention shall be subject to ratification, acceptance or approval by States and by Namibia, represented by the United Nations Council for Namibia and to formal confirmation or approval by political and/or economic integration organizations. Instruments of ratification, acceptance, formal confirmation, or approval shall be deposited with the Depositary.

2. Any organization referred to in paragraph 1 above which becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to the Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3. In their instruments of formal confirmation or approval, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depositary, who will inform the Parties of any substantial modification in the extent of their competence.

ARTICLE 23: ACCESSION

1. This Convention shall be open for accession by States, by Namibia, represented by the United Nations Council for Namibia, and by political and/or economic integration organizations from the day after the date on which the Convention is closed for signature. The instruments of accession shall be deposited with the Depositary.

2. In their instruments of accession, the organizations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

3. The provisions of Article 22 paragraph 2, shall apply to political and/or economic integration organizations which accede to this Convention.

ARTICLE 24: RIGHT TO VOTE

1. Except as provided for in paragraph 2 below, each Contracting Party to this Convention shall have one vote.

2. Political and/or economic integration organizations, in matters within their competence, in accordance with Article 22, paragraph 3, and Article 23, paragraph 2, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to the Convention or the relevant protocol. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

ARTICLE 25: ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the twentieth instrument of ratification, acceptance, formal confirmation, approval or accession.

2. For each State or political and/or economic integration organization which ratifies, accepts, approves or formally confirms this Convention or accedes thereto after the date of the deposit of the twentieth instrument of ratification, acceptance, approval, formal confirmation or accession, it shall enter into force on the ninetieth day after the date of deposit by such State or political and/or economic integration organization of its instrument of ratification, acceptance, approval, formal confirmation or accession.

3. For the purposes of paragraphs 1 and 2 above, any instrument deposited by a political and/or economic integration organization shall not be counted as additional to those deposited by member States of such organization.

ARTICLE 26: RESERVATIONS AND DECLARATIONS

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

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

ARTICLE 27: WITHDRAWAL

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

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

ARTICLE 28: DEPOSITORY

The Secretary-General of the United Nations shall be the Depository of this Convention and of any protocol thereto.

ARTICLE 29: AUTHENTIC TEXTS

The original Arabic, Chinese, English, French, Russian and Spanish texts of this Convention are equally authentic.

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

DONE AT BASEL ON THE 22nd DAY OF MARCH 1989.

DATE OF ENTRY INTO FORCE 5 MAY 1992.

ANNEX I
CATEGORIES OF WASTES TO BE CONTROLLED

Waste Streams

Y1 Clinical wastes from medical care in hospitals, medical centers and clinics
Y2 Wastes from the production and preparation of pharmaceutical products
Y3 Waste pharmaceuticals, drugs and medicines
Y4 Wastes from the production, formulation and use of biocides and phyto-pharmaceuticals
Y5 Wastes from the manufacture, formulation and use of wood preserving chemicals
Y6 Wastes from the production, formulation and use of organic solvents
Y7 Wastes from heat treatment and tempering operations containing cyanides
Y8 Waste mineral oils unfit for their originally intended use
Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions
Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCBs) and/or polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)
Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment
Y12 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
Y13 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
Y15 Wastes of an explosive nature not subject to other legislation
Y16 Wastes from production, formulation and use of photographic chemicals and processing materials
Y17 Wastes resulting from surface treatment of metals and plastics
Y18 Residues arising from industrial waste disposal operations

Wastes having as constituents:

Y19 Metal carbonyls
Y20 Beryllium; beryllium compounds
Y21 Hexavalent chromium compounds
Y22 Copper compounds
Y23 Zinc compounds
Y24 Arsenic; arsenic compounds
Y25 Selenium, selenium compounds
Y26 Cadmium; cadmium compounds
Y27 Antimony; antimony compounds
Y28 Tellurium; tellurium compounds
Y29 Mercury; mercury compounds
Y30 Thallium; thallium compounds
Y31 Lead, lead compounds
Y32 Inorganic fluorine compounds excluding calcium fluoride
Y33 Inorganic cyanides
Y34 Acidic solutions or acids in solid form
Y35 Basic solutions or bases in solid form
Y36 Asbestos (dust and fibres)
Y37 Organic phosphorous compounds
Y38 Organic cyanides
Y39 Phenols; phenol compounds including chlorophenols
Y40 Ethers
Y41 Halogenated organic solvents
Y42 Organic solvents excluding halogenated solvents
Y43 Any congenor of polychlorinated dibenzo-furan
Y44 Any congenor of polychlorinated dibenzo-p-dioxin
Y45 Organohalogen compounds other than substances referred to in this Annex (e.g. Y39, Y41, Y42, Y43, Y44).

ANNEX II
CATEGORIES OF WASTES REQUIRING SPECIAL CONSIDERATION

Y46 Wastes collected from households
Y47 Residues arising from the incineration of household

ANNEX III
LIST OF HAZARDOUS CHARACTERISTICS

UN
Class* Code Characteristics

1 H1 Explosive

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

3 H3 Flammable liquids

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

4.1 H4.1 Flammable solids

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

4.2 H4.2 Substances or wastes liable to spontaneous combustion

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

1.3 H4.2 Substances or wastes which, in contact with water emit flammable gases

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

5.1 H5.1 Oxidizing

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

5.2 H5.2 Organic Peroxides

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

6.1 H6.1 Poisonous (Acute)

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

6.2 H6.2 Infectious substances

Substances or wastes containing viable micro organisms or their toxins which are known or suspected to cause disease in animals or humans.

8 H8 Corrosives

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

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

Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

9 H11 Toxic (Delayed or chronic)

Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.

9 H12 Ecotoxic

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

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

Tests

The potential hazards posed by certain types of wastes are not yet fully documented; tests to define quantitatively these hazards do not exist. Further research is necessary in order to develop means to characterize potential hazards posed to man and/or the environment by these wastes. Standardized tests have been derived with respect to pure substances and materials. Many countries have developed national tests which can be applied to materials listed in Annex 1, in order to decide if these materials exhibit any of the characteristics listed in this Annex.

*Corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/ AC.10/ 1/Rev.5, United Nations, New York, 1988).

ANNEX IV

DISPOSAL OPERATIONS
A. OPERATIONS WHICH DO NOT LEAD TO THE POSSIBILITY OF RESOURCE RECOVERY, RECYCLING, RECLAMATION, DIRECT RE- USE OR ALTERNATIVE USES

Section A encompasses all such disposal operations which occur in practice.

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

D2 Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)

D3 Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)

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

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

D6 Release into a water body except seas/oceans

D7 Release into seas/oceans including sea-bed insertion

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

D9 Physico chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Section A, (e.g., evaporation, drying, calcination, neutralisation, precipitation, etc.)
D10 Incineration on land

D11 Incineration at sea

D12 Permanent storage (e.g., emplacement of containers in a mine, etc.) D13 Blending or mixing prior to submission to any of the operations in Section A

D14 Repackaging prior to submission to any of the operations in Section A D15 Storage pending any of the operations in Section A

B. OPERATIONS WHICH MAY LEAD TO RESOURCE RECOVERY, RECYCLING, RECLAMATION, DIRECT RE-USE OR ALTERNATIVE USES

Section B encompasses all such operations with respect to materials legally defined as or considered to be hazardous wastes and which otherwise would have been destined for operations included in Section A

R1 Use as a fuel (other than in direct incineration) or other means to generate energy

R2 Solvent reclamation/regeneration

R3 Recycling/reclamation of organic substances which are not used as solvents

R4 Recycling/reclamation of metals and metal compounds

R5 Recycling/reclamation of other inorganic materials

R6 Regeneration of acids or bases

R7 Recovery of components used for pollution abatement

R8 Recovery of components from catalysts

R9 Used oil re-refining or other reuses of previously used oil

R10 Land treatment resulting in benefit to agriculture or ecoological improvement

R11 Uses of residual materials obtained from any of the operations numbered R1-R10

R12 Exchange of wastes for submission to any of the operations numbered R1- R11

R13 Accumulation of material intended for any operation in Section B

ANNEX V A
INFORMATION TO BE PROVIDED ON NOTIFICATION

1. Reason for waste export

2. Exporter of the waste/1

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

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

5. Intended carrier(s) of the waste or their agents, if known/1

6. Country of export of the waste Competent authority/2

7. Expected countries of transit Competent authority/2

8. Country of import of the waste Competent authority/2

9. General or single notification

10. Projected date(s) of shipment(s) and period of time over which waste is to be exported and proposed itinerary (including point of entry and exit)/3

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

12. Information relating to insurance/4

13. Designation and physical description of the waste including Y number and UN number and its compositions/5 and information on any special handling requirements including emergency provisions in case of accidents

14. Type of packaging envisaged (e.g. bulk, drummed, tanker)

15. Estimated quantity in weight/volume/6

16. Process by which the waste is generated/7

17. For wastes listed in Annex III, classifications from Annex II: hazardous characteristic, H number, and UN class.

18. Method of disposal as per Annex IV

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

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

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

Notes

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

2/ Full name and address, telephone, telex or telefax number.

3/ In the case of a general notification covering several shipments, either the expected dates of each shipment or, if this is not known, the expected frequency of the shipments will be required.

4/ Information is to be provided on relevant insurance requirements and how they are met by exporter, carrier and disposer.

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

6/ In the case of a general notification covering several shipments, both the estimated total quantity and the estimated quantities for each individual shipment will be required.

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

ANNEX V B
INFORMATION TO BE PROVIDED ON THE MOVEMENT DOCUMENT

1. Exporter of the waste/1

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

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

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

5. Subject of general or single notification

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

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

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

9. Information on special handling requirements including emergency provision in case of accidents

10. Type and number of packages

11. Quantity in weight/volume

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

13. Declaration by the generator or exporter indicating no objection from the competent authorities of all States concerned which are Parties.

14. Certification by disposer of receipt at designated disposal facility and indication of method of disposal and of the approximate date of disposal.

Notes

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

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

ANNEX VI
ARBITRATION

ARTICLE 1

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

ARTICLE 2

The claimant party shall notify the Secretariat that the parties have agreed to submit the dispute to arbitration pursuant to paragraph 2 or paragraph 3 of Article 20 and include, in particular, the Articles of the Convention the interpretation or application of which are at issue. The Secretariat shall forward the information thus received to all Parties to the Convention.

ARTICLE 3

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

ARTICLE 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the ap-

pointment of the second arbitrator, the Secretary-General of the United Nations shall, at the request of either party, designate him within a further two months' period.

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

ARTICLE 5

1. The arbitral tribunal shall render its decision in accordance with international law and in accordance with the provisions of this Convention.
2. Any arbitral tribunal constituted under the provisions of this Annex shall draw up its own rules of procedure.

ARTICLE 6

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

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

3. The parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.

4. The absence or default of a party in the dispute shall not constitute an impediment to the proceedings.

ARTICLE 7

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

ARTICLE 8

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

ARTICLE 9

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

ARTICLE 10

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

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

3. Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another tribunal constituted for this purpose in the same manner as the first.

ANNEX VIII

LIST A

Wastes contained in this Annex are characterized as hazardous under Article 1, paragraph 1 (a), of this Convention, and their designation on this Annex does not preclude the use of Annex III to demonstrate that a waste is not hazardous.

A1 Metal and metal-bearing wastes

A1010 Metal wastes and waste consisting of alloys of any of the following:
- Antimony
- Arsenic
- Beryllium
- Cadmium
- Lead
- Mercury
- Selenium
- Tellurium
- Thallium

but excluding such wastes specifically listed on list B.

A1020 Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following:

- Antimony; antimony compounds
- Beryllium; beryllium compounds
- Cadmium; cadmium compounds
- Lead; lead compounds
- Selenium; selenium compounds
- Tellurium; tellurium compounds

A1030 Wastes having as constituents or contaminants any of the following:

- Arsenic; arsenic compounds
- Mercury; mercury compounds.
- Thallium; thallium compounds

A1040 Wastes having as constituents any of the following:

- Metal carbonyls
- Hexavalent chromium compounds

A1050 Galvanic sludges

A1060 Waste liquors from the pickling of metals

A1070 Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.

A1080 Waste zinc residues not included on list B, containing lead and cadmium in concentrations sufficient to exhibit Annex III characteristics

A1090 Ashes from the incineration of insulated copper wire

A1100 Dusts and residues from gas cleaning systems of copper smelters

A1110 Spent electrolytic solutions from copper electrorefining and electrowinning operations

A1120 Waste sludges, excluding anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations

A1130 Spent etching solutions containing dissolved copper

A1140 Waste cupric chloride and copper cyanide catalysts

A1150 Precious metal ash from incineration of printed circuit boards not included on list B

A1160 Waste lead-acid batteries, whole or crushed

A1170 Unsorted waste batteries excluding mixtures of only list B batteries. Waste batteries not specified on list B containing Annex I constituents to an extent to render them hazardous.

A1180 Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (note the related entry on list B B1110)

A2 Wastes containing principally inorganic constituents, which may contain metals and organic materials

A2010 Glass waste from cathode-ray tubes and other activated glasses

A2020 Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes specified on list B

A2030 Waste catalysts but excluding such wastes specified on list B

A2040 Waste gypsum arising from chemical industry processes, when containing Annex I constituents to the extent that it exhibits an Annex III hazardous characteristic (note the related entry on list B B2080)

A2050 Waste asbestos (dusts and fibres)

A2060 Coal-fired power plant fly-ash containing Annex I substances in concentrations sufficient to exhibit Annex III characteristics (note the related entry on list B B2050)

A3 Wastes containing principally organic constituents, which may contain metals and inorganic materials

A3010 Waste from the production or processing of petroleum coke and bitumen

A3020 Waste mineral oils unfit for their originally intended use

A3030 Wastes that contain, consist of or are contaminated with leaded anti-knock compound sludges

A3040 Waste thermal (heat transfer) fluids

A3050 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives excluding such wastes specified on list B (note the related entry on list B B4020)

A3060 Waste nitrocellulose

A3070 Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges

A3080 Waste ethers not including those specified on list B

A3090 Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry on list B B3100)

A3100 Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent chromium compounds or biocides (note the related entry on list B B3090)

A3110 Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list B B3110)

A3120 Fluff - light fraction from shredding

A3130 Waste organic phosphorous compounds

A3140 Waste non-halogenated organic solvents but excluding such wastes specified on list B

A3150 Waste halogenated organic solvents

A3160 Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations

A3170 Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloro-ethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorhydrin)

A3180 Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more

A3190 Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolitic treatment of organic materials

A4 Wastes which may contain either inorganic or organic constituents

A4010 Wastes from the production, preparation and use of pharmaceutical products but excluding such wastes specified on list B

A4020 Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices, and wastes generated in hospitals or other facilities during the investigation or treatment of patients, or research projects

A4030 Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated, or unfit for their originally intended use

A4040 Wastes from the manufacture, formulation and use of wood-preserving chemicals

A4050 Wastes that contain, consist of or are contaminated with any of the following:

- Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides
- Organic cyanides

A4060 Waste oils/water, hydrocarbons/water mixtures, emulsions

A4070 Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010)

A4080 Wastes of an explosive nature (but excluding such wastes specified on list B)

A4090 Waste acidic or basic solutions, other than those specified in the corresponding entry on list B (note the related entry on list B B2120)

A4100 Wastes from industrial pollution control devices for cleaning of industrial off-gases but excluding such wastes specified on list B

A4110 Wastes that contain, consist of or are contaminated with any of the following:
- Any congenor of polychlorinated dibenzo-furan
- Any congenor of polychlorinated dibenzo-dioxin

A4120 Wastes that contain, consist of or are contaminated with peroxides

A4130 Waste packages and containers containing Annex I substances in concentrations sufficient to exhibit Annex III hazard characteristics

A4140 Waste consisting of or containing off specification or outdated chemicals corresponding to Annex I categories and exhibiting Annex III hazard characteristics

A4150 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on human health and/or the environment are not known

A4160 Spent activated carbon not included on list B (note the related entry on list B B2060)

ANNEX IX
LIST B

Wastes contained in the Annex will not be wastes covered by Article 1, paragraph 1 (a), of this Convention unless they contain Annex I material to an extent causing them to exhibit an Annex III characteristic.

B1 Metal and metal-bearing wastes

B1010 Metal and metal-alloy wastes in metallic, non-dispersible form:

$ Precious metals (gold, silver, the platinum group, but not mercury)

- Iron and steel scrap
- Copper scrap
- Nickel scrap
- Aluminium scrap
- Zinc scrap
- Tin scrap
- Tungsten scrap
- Molybdenum scrap
- Tantalum scrap
- Magnesium scrap
- Cobalt scrap
- Bismuth scrap
- Titanium scrap
- Zirconium scrap
- Manganese scrap
- Germanium scrap
- Vanadium scrap
- Scrap of hafnium, indium, niobium, rhenium and gallium
- Thorium scrap
- Rare earths scrap

B1020 Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc), of:

- Antimony scrap
- Beryllium scrap
- Cadmium scrap
- Lead scrap (but excluding lead-acid batteries)
- Selenium scrap
- Tellurium scrap

B1030 Refractory metals containing residues

B1040 Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous

B1050 Mixed non-ferrous metal, heavy fraction scrap, not containing Annex I materials in concentrations sufficient to exhibit Annex III characteristics

B1060 Waste selenium and tellurium in metallic elemental form including powder

B1070 Waste of copper and copper alloys in dispersible form, unless they contain Annex I constituents to an extent that they exhibit Annex III characteristics

B1080 Zinc ash and residues including zinc alloys residues in dispersible form unless containing Annex I constituents in concentration such as to exhibit Annex III characteristics or exhibiting hazard characteristic H4.3

B1090 Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury

B1100 Metal-bearing wastes arising from melting, smelting and refining of metals:

- Hard zinc spelter
- Zinc-containing drosses:
- Galvanizing slab zinc top dross (>90% Zn)
- Galvanizing slab zinc bottom dross (>92% Zn)
- Zinc die casting dross (>85% Zn)
- Hot dip galvanizers slab zinc dross (batch) (>92% Zn)
- Zinc skimmings
- Aluminium skimmings (or skims) excluding salt slag
- Slags from copper processing for further processing or refining not containing arsenic, lead or cadmium to an extend that they exhibit Annex III hazard characteristics
- Wastes of refractory linings, including crucibles, originating from copper smelting
- Slags from precious metals processing for further refining
- Tantalum-bearing tin slags with less than 0.5% tin

B1110 Electrical and electronic assemblies:

- Electronic assemblies consisting only of metals or alloys
- Waste electrical and electronic assemblies or scrap (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (note the related entry on list A A1180)
- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse, and not for recycling or final disposal

B1120 Spent catalysts excluding liquids used as catalysts, containing any of:

Transition metals, excluding waste catalysts (spent catalysts, liquid

used catalysts or

other catalysts) on list A:

Scandium

Vanadium

Manganese

Cobalt

Copper

Yttrium

Niobium

Hafnium

Tungsten

Titanium

Chromium

Iron

Nickel

Zinc

Zirconium

Molybdenum

Tantalum

Rhenium

Lanthanides (rare earth metals):

Lanthanum

Praseodymium

Samarium

Gadolinium

Dysprosium

Erbium

Ytterbium

Cerium

Neody

Europium

Terbium

Holmium

Thulium

Lutetium

B1130 Cleaned spent precious-metal-bearing catalysts

B1140 Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides

B1150 Precious metals and alloy wastes (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labelling

B1160 Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A A1150)

B1170 Precious-metal ash from the incineration of photographic film

B1180 Waste photographic film containing silver halides and metallic silver

B1190 Waste photographic paper containing silver halides and metallic silver

B1200 Granulated slag arising from the manufacture of iron and steel

B1210 Slag arising from the manufacture of iron and steel including slags as a source of TiO_2 and vanadium

B1220 Slag from zinc production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301) mainly for construction

B1230 Mill scaling arising from the manufacture of iron and steel

B1240 Copper oxide mill-scale

B2 Wastes containing principally inorganic constituents, which may contain metals and organic materials

B2010 Wastes from mining operations in non-dispersible form:

- Natural graphite waste
- Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise
- Mica waste
- Leucite, nepheline and nepheline syenite waste
- Feldspar waste
- Fluorspar waste
- Silica wastes in solid form excluding those used in foundry operations

B2020 Glass waste in non-dispersible form:

- Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses

B2030 Ceramic wastes in non-dispersible form:

- Cermet wastes and scrap (metal ceramic composites)
- Ceramic based fibres not elsewhere specified or included

B2040 Other wastes containing principally inorganic constituents:

- Partially refined calcium sulphate produced from flue-gas desulphurization (FGD)
- Waste gypsum wallboard or plasterboard arising from the demolition of buildings
- Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301 and DIN 8201) mainly for construction and abrasive applications
- Sulphur in solid form
- Limestone from the production of calcium cyanamide (having a pH less than 9)
- Sodium, potassium, calcium chlorides
- Carborundum (silicon carbide)
- Broken concrete
- Lithium-tantalum and lithium-niobium containing glass scraps

B2050 Coal-fired power plant fly-ash, not included on list A (note the related entry on list A A2060)

B2060 Spent activated carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry on list A A4160)

B2070 Calcium fluoride sludge

B2080 Waste gypsum arising from chemical industry processes not included on list A (note the related entry on list A A2040)

B2090 Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry)

B2100 Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes

B2110 Bauxite residue ("red mud") (pH moderated to less than 11.5)

B2120 Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry on list A A4090)

B3 Wastes containing principally organic constituents, which may contain metals and inorganic materials

B3010 Solid plastic waste:

The following plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification:

- -Scrap plastic of non-halogenated polymers and co-polymers, including but not limited to the following:
- ethylene
- styrene
- polypropylene
- polyethylene terephthalate
- acrylonitrile
- butadiene
- polyacetals
- polyamides
- polybutylene terephthalate
- polycarbonates
- polyethers
- polyphenylene sulphides
- acrylic polymers
- alkanes C10-C13 (plasticiser)
- polyurethane (not containing CFCs)
- polysiloxanes
- polymethyl methacrylate
- polyvinyl alcohol
- polyvinyl butyral
- polyvinyl acetate
- Cured waste resins or condensation products including the following:
- urea formaldehyde resins
- phenol formaldehyde resins
- melamine formaldehyde resins
- epoxy resins
- alkyd resins
- polyamides
- The following fluorinated polymer wastes
- perfluoroethylene/propylene (FEP)
- perfluoroalkoxy alkane (PFA)
- perfluoroalkoxy alkane (MFA)
- polyvinylfluoride (PVF)
- polyvinylidenefluoride (PVDF)

B3020 Paper, paperboard and paper product wastes The following materials, provided they are not mixed with hazardous wastes:

Waste and scrap of paper or paperboard of:

- unbleached paper or paperboard or of corrugated paper or paperboard

- other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass
- paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)

- other, including but not limited to 1) laminated paperboard 2) unsorted scrap.

B3030 Textile wastes

The following materials, provided they are not mixed with other wastes and are prepared to a specification:

- Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock)

- not carded or combed

- other

- Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock

- noils of wool or of fine animal hair

- other waste of wool or of fine animal hair

- waste of coarse animal hair

- Cotton waste (including yarn waste and garnetted stock)

- yarn waste (including thread waste)

- garnetted stock

- other

- Flax tow and waste

- Tow and waste (including yarn waste and garnetted stock) of true hemp (Cannabis sativa L.)
- Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)
- Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave
- Tow, noils and waste (including yarn waste and garnetted stock) of coconut

- Tow, noils and waste (including yarn waste and garnetted stock) of abaca (Manila hemp or Musa textilis Nee)

- Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included

- Waste (including noils, yarn waste and garnetted stock) of man-made fibres

- of synthetic fibres

- of artificial fibres

- Worn clothing and other worn textile articles

- Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials

- sorted

- other

B3040 Rubber wastes

The following materials, provided they are not mixed with other wastes:

- Waste and scrap of hard rubber (e.g., ebonite)

- Other rubber wastes (excluding such wastes specified elsewhere)

B3050 Untreated cork and wood waste:

- Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms

- Cork waste: crushed, granulated or ground cork

B3060 Wastes arising from agro-food industries provided it is not infectious:

- Wine lees

- Dried and sterilized vegetable waste, residues and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included

- Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes

- Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised

- Fish waste

- Cocoa shells, husks, skins and other cocoa waste

- Other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption

B3070 The following wastes:

- Waste of human hair

- Waste straw

- Deactivated fungus mycelium from penicillin production to be used as animal feed

B3080 Waste parings and scrap of rubber

B3090 Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry on list A A3100)

B3100 Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry on list A A3090)

B3110 Fellmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list A A3110)

B3120 Wastes consisting of food dyes

B3130 Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides

B3140 Waste pneumatic tyres, excluding those destined for Annex IVA operations

B4 Wastes which may contain either inorganic or organic constituents

B4010 Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list A A4070)

B4020 Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit Annex III characteristics, e.g., water-based, or glues based on casein starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A A3050)

B4030 Used single-use cameras, with batteries not included on list A

PROTOCOL ON LIABILITY AND COMPENSATION

Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal

TEXT OF THE CONVENTION

The Parties to the Protocol,

Having taken into account the relevant provisions of Principle 13 of the 1992 Rio Declaration on Environment and Development, according to which States shall develop international and national legal instruments regarding liability and compensation for the victims of pollution and other environmental damage,

Being Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Mindful of their obligations under the Convention, Aware of the risk of damage to human health, property and the environment caused by hazardous wastes and other wastes and the transboundary movement and disposal thereof,

Concerned about the problem of illegal transboundary traffic in hazardous wastes and other wastes,

Committed to Article 12 of the Convention, and emphasizing the need to set out appropriate rules and procedures in the field of liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes,

Convinced of the need to provide for third party liability and environmental liability in order to ensure that adequate and prompt compensation is available for damage resulting from the transboundary movement and disposal of hazardous wastes and other wastes,

Have agreed as follows:

ARTICLE 1: OBJECTIVE

The objective of the Protocol is to provide for a comprehensive regime for liability and for adequate and prompt compensation for damage resulting from the transboundary movement of hazardous wastes and other wastes and their disposal including illegal traffic in those wastes.

ARTICLE 2: DEFINITIONS

1. The definitions of terms contained in the Convention apply to the Protocol, unless expressly provided otherwise in the Protocol.

2. For the purposes of the Protocol:

   (a) "The Convention" means the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal;

   (b) "Hazardous wastes and other wastes" means hazardous wastes and other wastes within the meaning of Article 1 of the Convention;

   (c) "Damage" means:

   (i) Loss of life or personal injury;

   (ii) Loss of or damage to property other than property held by the person liable in accordance with the present Protocol;

   (iii) Loss of income directly deriving from an economic interest in any use of the environment, incurred as a result of impairment of the environment, taking into account savings and costs;

   (iv) The costs of measures of reinstatement of the impaired environment, limited to the costs of measures actually taken or to be undertaken; and

   (v) The costs of preventive measures, including any loss or damage caused by such measures, to the extent that the damage arises out of or results from hazardous properties of the wastes involved in the transboundary movement and disposal of hazardous wastes and other wastes subject to the Convention;

   (d) "Measures of reinstatement" means any reasonable measures aiming to assess, reinstate

or restore damaged or destroyed components of the environment. Domestic law may indicate who will be entitled to take such measures;

(e) "Preventive measures" means any reasonable measures taken by any person in response to an incident, to prevent, minimize, or mitigate loss or damage, or to effect environmental clean-up;

(f) "Contracting Party" means a Party to the Protocol;

(g) "Protocol" means the present Protocol;

(h) "Incident" means any occurrence, or series of occurrences having the same origin that causes damage or creates a grave and imminent threat of causing damage;

(i) "Regional economic integration organization" means an organization constituted by sovereign States to which its member States have transferred competence in respect of matters governed by the Protocol and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve, formally confirm or accede to it;

(j) "Unit of account" means the Special Drawing Right as defined by the International Monetary Fund.

ARTICLE 3: SCOPE OF APPLICATION

1. The Protocol shall apply to damage due to an incident occurring during a transboundary movement of hazardous wastes and other wastes and their disposal, including illegal traffic, from the point where the wastes are loaded on the means of transport in an area under the national jurisdiction of a State of export. Any Contracting Party may by way of notification to the Depositary exclude the application of the Protocol, in respect of all transboundary movements for which it is the State of export, for such incidents which occur in an area under its national jurisdiction, as regards damage in its area of national jurisdiction. The Secretariat shall inform all Contracting Parties of notifications received in accordance with this Article. The Protocol shall apply:

(a) In relation to movements destined for one of the operations specified in Annex IV to the Convention other than D13, D14, D15, R12 or R13, until the time at which the notification of completion of disposal pursuant to Article 6, paragraph 9, of the Convention has occurred, or, where such notification has not been made, completion of disposal has occurred; and

(b) In relation to movements destined for the operations specified in D13, D14, D15, R12 or R13 of Annex IV to the Convention, until completion of the subsequent disposal operation specified in D1 to D12 and R1 to R11 of Annex IV to the Convention.

2. (a) The Protocol shall apply only to damage suffered in an area under the national jurisdiction of a Contracting Party arising from an incident as referred to in paragraph 1;

(b) When the State of import, but not the State of export, is a Contracting Party, the Protocol shall apply only with respect to damage arising from an incident as referred to in paragraph 1 which takes place after the moment at which the disposer has taken possession of the hazardous wastes and other wastes. When the State of export, but not the State of import, is a Contracting Party, the Protocol shall apply only with respect to damage arising from an incident as referred to in paragraph 1 which takes place prior to the moment at which the disposer takes possession of the hazardous wastes and other wastes. When neither the State of export nor the State of import is a Contracting Party, the Protocol shall not apply;

(c) Notwithstanding subparagraph (a), the Protocol shall also apply to the damages specified in Article 2, subparagraphs 2 (c) (i), (ii) and (v), of the Protocol occurring in areas beyond any national jurisdiction;

(d) Notwithstanding subparagraph (a), the Protocol shall, in relation to rights under the Protocol, also apply to damages suffered in an area under the national jurisdiction of a State of transit which is not a Contracting Party provided that such State appears in Annex A and has acceded to a multilateral or regional agreement concerning transboundary movements of hazardous waste which is in force. Subparagraph (b) will apply *mutatis mutandis*.

3. Notwithstanding paragraph 1, in case of re-importation under Article 8 or Article 9, subparagraph 2 (a), and Article 9, paragraph 4, of the Convention, the provisions of the Protocol shall apply until the hazardous wastes and other wastes reach the original State of export.

4. Nothing in the Protocol shall affect in any way the sovereignty of States over their territorial seas and their jurisdiction and the right in their respective exclusive economic zones and continental shelves in accordance with international law.

5. Notwithstanding paragraph 1 and subject to paragraph 2 of this Article:

   (a) The Protocol shall not apply to damage that has arisen from a transboundary movement of hazardous wastes and other wastes that has commenced before the entry into force of the Protocol for the Contracting Party concerned;

   (b) The Protocol shall apply to damage resulting from an incident occurring during a transboundary movement of wastes falling under Article 1, subparagraph 1 (b), of the Convention only if those wastes have been notified in accordance with Article 3 of the Convention by the State of export or import, or both, and the damage arises in an area under the national jurisdiction of a State, including a State of transit, that has defined or considers those wastes as hazardous provided that the requirements of Article 3 of the Convention have been met. In this case strict liability shall be channeled in accordance with Article 4 of the Protocol.

6. (a) The Protocol shall not apply to damage due to an incident occurring during a transboundary movement of hazardous wastes and other wastes and their disposal pursuant to a bilateral, multilateral or regional agreement or arrangement concluded and notified in accordance with Article 11 of the Convention if:

   (i) The damage occurred in an area under the national jurisdiction of any of the Parties to the agreement or arrangement;

   (ii) There exists a liability and compensation regime, which is in force and is applicable to the damage resulting from such a transboundary movement or disposal provided it fully meets, or exceeds the objective of the Protocol by providing a high level of protection to persons who have suffered damage;

   (iii) The Party to the Article 11 agreement or arrangement in which the damage has occurred has previously notified the Depositary of the non-application of the Protocol to any damage occurring in an area under its national jurisdiction due to an incident resulting from movements or disposals referred to in this subparagraph; and

   (iv) The Parties to the Article 11 agreement or arrangement have not declared that the Protocol shall be applicable;

   (b) In order to promote transparency, a Contracting Party that has notified the Depositary of the non-application of the Protocol shall notify the Secretariat of the applicable liability and compensation regime referred to in subparagraph (a) (ii) and include a description of the regime. The Secretariat shall submit to the Meeting of the Parties, on a regular basis, summary reports on the notifications received;

   (c) After a notification pursuant to subparagraph (a) (iii) is made, actions for compensation for damage to which subparagraph (a) (i) applies may not be made under the Protocol.

7. The exclusion set out in paragraph 6 of this Article shall neither affect any of the rights or obligations under the Protocol of a Contracting Party which is not party to the agreement or arrangement mentioned above, nor shall it affect rights of States of transit which are not Contracting Parties.

8. Article 3, paragraph 2, shall not affect the application of Article 15 to all Contracting Parties.

ARTICLE 4: STRICT LIABILITY

1. The person who notifies in accordance with Article 6 of the Convention, shall be liable for damage until the disposer has taken possession of the hazardous wastes and other wastes. Thereafter the disposer shall be liable for damage. If the State of export is the notifier or if no notification has taken place, the exporter shall be liable for damage until the disposer has taken possession of the hazardous wastes and other wastes. With respect to Article 3, subparagraph 5 (b), of the Protocol, Article 6, paragraph 5, of the Convention shall apply *mutatis mutandis*. Thereafter the disposer shall be liable for damage.

2. Without prejudice to paragraph 1, with respect to wastes under Article 1, subparagraph 1 (b), of the Convention that have been notified as hazardous by the State of import in accordance with Article 3 of the Convention but not by the State of export, the importer shall be liable until the

disposer has taken possession of the wastes, if the State of import is the notifier or if no notification has taken place. Thereafter the disposer shall be liable for damage.

3. Should the hazardous wastes and other wastes be re-imported in accordance with Article 8 of the Convention, the person who notified shall be liable for damage from the time the hazardous wastes leave the disposal site, until the wastes are taken into possession by the exporter, if applicable, or by the alternate disposer.

4. Should the hazardous wastes and other wastes be re-imported under Article 9, subparagraph 2 (a), or Article 9, paragraph 4, of the Convention, subject to Article 3 of the Protocol, the person who re-imports shall be held liable for damage until the wastes are taken into possession by the exporter if applicable, or by the alternate disposer.

5. No liability in accordance with this Article shall attach to the person referred to in paragraphs 1 and 2 of this Article, if that person proves that the damage was:

   (a) The result of an act of armed conflict, hostilities, civil war or insurrection;

   (b) The result of a natural phenomenon of exceptional, inevitable, unforeseeable and irresistible character;

   (c) Wholly the result of compliance with a compulsory measure of a public authority of the State where the damage occurred; or

   (d) Wholly the result of the wrongful intentional conduct of a third party, including the person who suffered the damage.

6. If two or more persons are liable according to this Article, the claimant shall have the right to seek full compensation for the damage from any or all of the persons liable.

ARTICLE 5: FAULT-BASED LIABILITY

Without prejudice to Article 4, any person shall be liable for damage caused or contributed to by his lack of compliance with the provisions implementing the Convention or by his wrongful intentional, reckless or negligent acts or omissions. This Article shall not affect the domestic law of the Contracting Parties governing liability of servants and agents.

ARTICLE 6: PREVENTIVE MEASURES

1. Subject to any requirement of domestic law any person in operational control of hazardous wastes and other wastes at the time of an incident shall take all reasonable measures to mitigate damage arising therefrom.

2. Notwithstanding any other provision in the Protocol, any person in possession and/or control of hazardous wastes and other wastes for the sole purpose of taking preventive measures, provided that this person acted reasonably and in accordance with any domestic law regarding preventive measures, is not thereby subject to liability under the Protocol.

ARTICLE 7: COMBINED CAUSE OF THE DAMAGE

1. Where damage is caused by wastes covered by the Protocol and wastes not covered by the Protocol, a person otherwise liable shall only be liable according to the Protocol in proportion to the contribution made by the wastes covered by the Protocol to the damage.

2. The proportion of the contribution to the damage of the wastes referred to in paragraph 1 shall be determined with regard to the volume and properties of the wastes involved, and the type of damage occurring.

3. In respect of damage where it is not possible to distinguish between the contribution made by wastes covered by the Protocol and wastes not covered by the Protocol, all damage shall be considered to be covered by the Protocol.

ARTICLE 8: RIGHT OF RECOURSE

1. Any person liable under the Protocol shall be entitled to a right of recourse in accordance with the rules of procedure of the competent court:

   (a) Against any other person also liable under the Protocol; and

   (b) As expressly provided for in contractual arrangements.

2. Nothing in the Protocol shall prejudice any rights of recourse to which the person liable might be entitled pursuant to the law of the competent court.

ARTICLE 9: CONTRIBUTORY FAULT

Compensation may be reduced or disallowed if the person who suffered the damage, or a person for whom he is responsible under the domestic law, by his own fault, has caused or contributed to the damage having regard to all circumstances.

ARTICLE 10: IMPLEMENTATION

1. The Contracting Parties shall adopt the legislative, regulatory and administrative measures necessary to implement the Protocol.

2. In order to promote transparency, Contracting Parties shall inform the Secretariat of measures to implement the Protocol, including any limits of liability established pursuant to paragraph 1 of Annex B.

3. The provisions of the Protocol shall be applied without discrimination based on nationality, domicile or residence.

ARTICLE 11: CONFLICTS WITH OTHER LIABILITY AND COMPENSATION AGREEMENTS

Whenever the provisions of the Protocol and the provisions of a bilateral, multilateral or regional agreement apply to liability and compensation for damage caused by an incident arising during the same portion of a transboundary movement, the Protocol shall not apply provided the other agreement is in force for the Party or Parties concerned and had been opened for signature when the Protocol was opened for signature, even if the agreement was amended afterwards.

ARTICLE 12: FINANCIAL LIMITS

1. Financial limits for the liability under Article 4 of the Protocol are specified in Annex B to the Protocol. Such limits shall not include any interest or costs awarded by the competent court.

2. There shall be no financial limit on liability under Article 5.

ARTICLE 13: TIME LIMIT OF LIABILITY

1. Claims for compensation under the Protocol shall not be admissible unless they are brought within ten years from the date of the incident.

2. Claims for compensation under the Protocol shall not be admissible unless they are brought within five years from the date the claimant knew or ought reasonably to have known of the damage provided that the time limits established pursuant to paragraph 1 of this Article are not exceeded.

3. Where the incident consists of a series of occurrences having the same origin, time limits established pursuant to this Article shall run from the date of the last of such occurrences. Where the incident consists of a continuous occurrence, such time limits shall run from the end of that continuous occurrence.

ARTICLE 14: INSURANCE AND OTHER FINANCIAL GUARANTEES

1. The persons liable under Article 4 shall establish and maintain during the period of the time limit of liability, insurance, bonds or other financial guarantees covering their liability under Article 4 of the Protocol for amounts not less than the minimum limits specified in paragraph 2 of Annex B. States may fulfil their obligation under this paragraph by a declaration of self-insurance. Nothing in this paragraph shall prevent the use of deductibles or co-payments as between the insurer and the insured, but the failure of the insured to pay any deductible or co-payment shall not be a defence against the person who has suffered the damage.

2. With regard to the liability of the notifier, or exporter under Article 4, paragraph 1, or of the importer under Article 4, paragraph 2, insurance, bonds or other financial guarantees referred to in paragraph 1 of this Article shall only be drawn upon in order to provide compensation for damage covered by Article 2 of the Protocol.

3. A document reflecting the coverage of the liability of the notifier or exporter under Article 4, paragraph 1, or of the importer under Article 4, paragraph 2, of the Protocol shall accompany the notification referred to in Article 6 of the Convention. Proof of coverage of the liability of the disposer shall be delivered to the competent authorities of the State of import.

4. Any claim under the Protocol may be asserted directly against any person providing insurance, bonds or other financial guarantees. The insurer or the person providing the financial guarantee shall have the right to require the person liable under Article 4 to be joined in the proceedings. Insurers and persons providing financial guarantees may invoke the defences which the person liable under Article 4 would be entitled to invoke.

5. Notwithstanding paragraph 4, a Contracting Party shall, by notification to the Depositary at the time of signature, ratification, or approval of, or accession to the Protocol, indicate if it does not provide for a right to bring a direct action pursuant to paragraph 4. The Secretariat shall maintain a record of the Contracting Parties who have given notification pursuant to this paragraph.

ARTICLE 15: FINANCIAL MECHANISM

1. Where compensation under the Protocol does not cover the costs of damage, additional and supplementary measures aimed at ensuring adequate and prompt compensation may be taken using existing mechanisms.

2. The Meeting of the Parties shall keep under review the need for and possibility of improving existing mechanisms or establishing a new mechanism.

ARTICLE 16: STATE RESPONSIBILITY

The Protocol shall not affect the rights and obligations of the Contracting Parties under the rules of general international law with respect to State responsibility.

PROCEDURES

ARTICLE 17: COMPETENT COURTS

1. Claims for compensation under the Protocol may be brought in the courts of a Contracting Party only where either:

   (a) The damage was suffered; or

   (b) The incident occurred; or

   (c) The defendant has his habitual residence, or has his principal place of business.

2. Each Contracting Party shall ensure that its courts possess the necessary competence to entertain such claims for compensation.

ARTICLE 18: RELATED ACTIONS

1. Where related actions are brought in the courts of different Parties, any court other than the court first seized may, while the actions are pending at first instance, stay its proceedings.

2. A court may, on the application of one of the Parties, decline jurisdiction if the law of that court permits the consolidation of related actions and another court has jurisdiction over both actions.

3. For the purpose of this Article, actions are deemed to be related where they are so closely connected that it is expedient to hear and determine them together to avoid the risk of irreconcilable judgements resulting from separate proceedings.

ARTICLE 19: APPLICABLE LAW

All matters of substance or procedure regarding claims before the competent court which are not specifically regulated in the Protocol shall be governed by the law of that court including any rules of such law relating to conflict of laws.

ARTICLE 20: RELATION BETWEEN THE PROTOCOL AND THE LAW OF THE COMPETENT COURT

1. Subject to paragraph 2, nothing in the Protocol shall be construed as limiting or derogating from any rights of persons who have suffered damage, or as limiting the protection or reinstatement of the environment which may be provided under domestic law.

2. No claims for compensation for damage based on the strict liability of the notifier or the exporter liable under Article 4, paragraph 1, or the importer liable under Article 4, paragraph 2, of the Protocol, shall be made otherwise than in accordance with the Protocol.

ARTICLE 21: MUTUAL RECOGNITION AND ENFORCEMENT OF JUDGEMENTS

1. Any judgement of a court having jurisdiction in accordance with Article 17 of the Protocol, which is enforceable in the State of origin and is no longer subject to ordinary forms of review, shall be recognized in any Contracting Party as soon as the formalities required in that Party have been completed, except:

   (a) Where the judgement was obtained by fraud;

   (b) Where the defendant was not given reasonable notice and a fair opportunity to present his case;

   (c) Where the judgement is irreconcilable with an earlier judgement validly pronounced in another Contracting Party with regard to the same cause of action and the same parties; or

   (d) Where the judgement is contrary to the public policy of the Contracting Party in which its recognition is sought.

2. A judgement recognized under paragraph 1 of this Article shall be enforceable in each Contracting Party as soon as the formalities required in that Party have been completed. The formalities shall not permit the merits of the case to be reopened.

3. The provisions of paragraphs 1 and 2 of this Article shall not apply between Contracting Parties that are Parties to an agreement or arrangement in force on mutual recognition and enforcement of judgements under which the judgement would be recognizable and enforceable.

ARTICLE 22: RELATIONSHIP OF THE PROTOCOL WITH THE BASEL CONVENTION

Except as otherwise provided in the Protocol, the provisions of the Convention relating to its Protocols shall apply to the Protocol.

ARTICLE 23: AMENDMENT OF ANNEX B

1. At its sixth meeting, the Conference of the Parties to the Basel Convention may amend paragraph 2 of Annex B following the procedure set out in Article 18 of the Basel Convention.

2. Such an amendment may be made before the Protocol enters into force.

FINAL CLAUSES

ARTICLE 24: MEETING OF THE PARTIES

1. A Meeting of the Parties is hereby established. The Secretariat shall convene the first Meeting of the Parties in conjunction with the first meeting of the Conference of the Parties to the Convention after entry into force of the Protocol.

2. Subsequent ordinary Meetings of the Parties shall be held in conjunction with meetings of the Conference of the Parties to the Convention unless the Meeting of the Parties decides otherwise. Extraordinary Meetings of the Parties shall be held at such other times as may be deemed necessary by a Meeting of the Parties, or at the written request of any Contracting Party, provided that within six months of such a request being communicated to them by the Secretariat, it is supported by at least one third of the Contracting Parties.

3. The Contracting Parties, at their first meeting, shall adopt by consensus rules of procedure for their meetings as well as financial rules.

4. The functions of the Meeting of the Parties shall be:

   (a) To review the implementation of and compliance with the Protocol;

   (b) To provide for reporting and establish guidelines and procedures for such reporting where necessary;

   (c) To consider and adopt, where necessary, proposals for amendment of the Protocol or any annexes and for any new annexes; and

   (d) To consider and undertake any additional action that may be required for the purposes of the Protocol.

ARTICLE 25: SECRETARIAT

1. For the purposes of the Protocol, the Secretariat shall:

   (a) Arrange for and service Meetings of the Parties as provided for in Article 24;

   (b) Prepare reports, including financial data, on its activities carried out in implementation of its functions under the Protocol and present them to the Meeting of the Parties;

   (c) Ensure the necessary coordination with relevant international bodies, and in particular enter into such administrative and contractual arrangements as may be required for the effective discharge of its functions;

   (d) Compile information concerning the national laws and administrative provisions of Contracting Parties implementing the Protocol;

   (e) Cooperate with Contracting Parties and with relevant and competent international organizations and agencies in the provision of experts and equipment for the purpose of rapid assistance to States in the event of an emergency situation;

   (f) Encourage non-Parties to attend the Meetings of the Parties as observers and to act in accordance with the provisions of the Protocol; and

   (g) Perform such other functions for the achievement of the purposes of this Protocol as may be assigned to it by the Meetings of the Parties.

2. The secretariat functions shall be carried out by the Secretariat of the Basel Convention.

ARTICLE 26: SIGNATURE

The Protocol shall be open for signature by States and by regional economic integration organizations Parties to the Basel Convention in Berne at the Federal Department of Foreign Affairs of Switzerland from 6 to 17 March 2000 and at United Nations Headquarters in New York from 1 April to 10 December 2000.

ARTICLE 27: RATIFICATION, ACCEPTANCE, FORMAL CONFIRMATION OR APPROVAL

1. The Protocol shall be subject to ratification, acceptance or approval by States and to formal confirmation or approval by regional economic integration organizations. Instruments of ratification, acceptance, formal confirmation, or approval shall be deposited with the Depositary.

2. Any organization referred to in paragraph 1 of this Article which becomes a Contracting Party without any of its member States being a Contracting Party shall be bound by all the obligations under the Protocol. In the case of such organizations, one or more of whose member States is a Contracting Party, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Protocol. In such cases, the organization and the member States shall not be entitled to exercise rights under the Protocol concurrently.

3. In their instruments of formal confirmation or approval, the organizations referred to in paragraph 1 of this Article shall declare the extent of their competence with respect to the matters governed by the Protocol. These organizations shall also inform the Depositary, who will inform the Contracting Parties, of any substantial modification in the extent of their competence.

ARTICLE 28: ACCESSION

1. The Protocol shall be open for accession by any States and by any regional economic integration organization Party to the Basel Convention which has not signed the Protocol. The instruments of accession shall be deposited with the Depositary.

2. In their instruments of accession, the organizations referred to in paragraph 1 of this Article shall declare the extent of their competence with respect to the matters governed by the Protocol. These organizations shall also inform the Depositary of any substantial modification in the extent of their competence.

3. The provisions of Article 27, paragraph 2, shall apply to regional economic integration Organizations which accede to the Protocol.

ARTICLE 29: ENTRY INTO FORCE

1. The Protocol shall enter into force on the ninetieth day after the date of deposit of the twentieth instrument of ratification, acceptance, formal confirmation, approval or accession.

2. For each State or regional economic integration organization which ratifies, accepts, approves or formally confirms the Protocol or accedes thereto after the date of the deposit of the twentieth instrument of ratification, acceptance, approval, formal confirmation or accession, it shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval, formal confirmation or accession.

3. For the purpose of paragraphs 1 and 2 of this Article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by member States of such organization.

ARTICLE 30: RESERVATIONS AND DECLARATIONS

1. No reservation or exception may be made to the Protocol. For the purposes of the Protocol, notifications according to Article 3, paragraph 1, Article 3, paragraph 6, or Article 14, paragraph 5, shall not be regarded as reservations or exceptions.

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

ARTICLE 31: WITHDRAWAL

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

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

ARTICLE 32: DEPOSITARY

The Secretary-General of the United Nations shall be the Depositary of the Protocol.

ARTICLE 33: AUTHENTIC TEXTS

The original Arabic, Chinese, English, French, Russian and Spanish texts of the Protocol are equally authentic.

Adopted in Basel, Switzerland, on 10 December 1999.

ANNEX A

LIST OF STATES OF TRANSIT AS REFERRED TO IN ARTICLE 3, SUBPARAGRAPH 2 (D)

1. Antigua and Barbuda
2. Bahamas
3. Bahrain
4. Barbados
5. Cape Verde
6. Comoros
7. Cook Islands
8. Cuba
9. Cyprus
10. Dominica
11. Dominican Republic
12. Fiji
13. Grenada
14. Haiti
15. Jamaica
16. Kiribati
17. Maldives
18. Malta
19. Marshall Islands
20. Mauritius
21. Micronesia (Federated States of)
22. Nauru
23. Netherlands, on behalf of Aruba and the Netherlands Antilles
24. New Zealand, on behalf of Tokelau
25. Niue
26. Palau
27. Papua New Guinea
28. Samoa
29. Sao Tome and Principe
30. Seychelles
31. Singapore
32. Solomon Islands
33. St. Lucia
34. St. Kitts and Nevis
35. St. Vincent and the Grenadines
36. Tonga
37. Trinidad and Tobago
38. Tuvalu
39. Vanuatu

ANNEX B

FINANCIAL LIMITS

1. Financial limits for the liability under Article 4 of the Protocol shall be determined by domestic law.

2. The limits of liability shall:

   (a) For the notifier, exporter or importer, for any one incident, be not less than:

   (i) 1 million units of account for shipments up to and including 5 tonnes;

   (ii) 2 million units of account for shipments exceeding 5 tonnes, up to and including 25 tonnes;

   (iii) 4 million units of account for shipments exceeding 25 tonnes, up to and including 50 tonnes;

   (iv) 6 million units of account for shipments exceeding 50 tonnes, up to and including to 1,000 tonnes;

   (v) 10 million units of account for shipments exceeding 1,000 tonnes, up to and including 10,000 tonnes;

   (vi) Plus an additional 1,000 units of account for each additional tonne up to a maximum of 30 million units of account;

   (b) For the disposer, for any one incident, be not less than 2 million units of account for any one incident.

3. The amounts referred to in paragraph 2 shall be reviewed by the Contracting Parties on a regular basis taking into account, *inter alia*, the potential risks posed to the environment by the movement of hazardous wastes and other wastes and their disposal, recycling, and the nature, quantity and hazardous properties of the wastes.

MOU BETWEEN BASEL CONVENTION AND WCO

Memorandum of Understanding on Co-operation Between the Secretariat of the Basel Convention and the World Customs Organization[1]

The Secretariat of the Basel Convention (hereinafter referred to as SBC) and the World Customs Organization (hereinafter referred to as WCO),

WISHING TO CO-ORDINATE their efforts within the terms of the Basel Convention and the Council Convention which established the CCC as well as other applicable agreements, resolutions and declarations within their respective mandates;

RECOGNIZING THAT THE SBC has responsibility for co-ordinating and providing effective leadership for the control of transboundary movement of hazardous wastes as mandated by the Basel Convention;

RECOGNIZING THAT THE WCO has responsibility for assigning Customs Administrations world-wide in defining import and export control policy and related law enforcement programmes which contribute to the fight against illicit trafficking of hazardous wastes through its focus on prevention, inspection, investigation and prosecution;

ACKNOWLEDGING the potential risk of Customs and other related officers' contact with illicit hazardous wastes during the course of their work and the need for appropriate training;

BEARING IN MIND the requirements of related international control treaties;

WISHING TO ESTABLISH effective co-operation with a view to enhancing international efforts for the control for transboundary movement of hazardous waste;

AWARE THAT such co-operation should be developed in the light of experience and practical action;

The SBC and the WCO (hereinafter called the Parties) agree upon the following relating to the hazardous waste control and related law enforcement activities:

ARTICLE I: MUTUAL CONSULTATION

1. The Parties shall consult regularly on policy issues regarding training and technical assistance and other matters of common interest for the purpose of achieving their objectives, implementing their mandates and co-ordinating their respective activities.

2. The Parties shall keep each other informed of developments in any of their activities and projects that are of mutual interest. Each Party will take into consideration the observations of the other Party with a view to promoting co-ordination and co-operation.

3. Whenever appropriate, consultations shall be arranged between representative of the two Parties to determine the most effective manner in which to organize particular activities and to secure the fullest utilization of resources.

ARTICLE II: EXCHANGE OF INFORMATION AND DOCUMENTS

1. Each party will designate an official as a focal point for the maintenance of close, direct and continuing contacts with a view to ensuring the implementation of the provision of this Memorandum of Understanding.

2. The Parties shall co-ordinate their efforts to achieve the best use of available information including seizure of data and legislative information relevant to hazardous wastes smuggling and to ensure the most effective utilization of their resources in the collection, analysis, publication and diffusion of such information.

3. Subject to such restrictions and arrangements as may be considered necessary by either Party to preserve the confidential nature of certain infor-

[1] World Customs Organization (WCO) is the working name of the Customs Co-operation Council (CCC).

mation and documents, full and prompt exchange of information and documents concerning matters of common interest shall be made between the Parties.

4. The Parties shall invite each other to attend as observers, meetings convened under their respective auspices and which consider matters in which the other party has an interest or technical competence.

5. Joint project activities shall be subject to the approval of individual project documents by both Parties and to periodic evaluationto be agreed upon. They shall also form part of the programme of work approved by the policy-making bodies of the Parties.

ARTICLE III: TECHNICAL CO-OPERATION AND FINANCIAL ASSISTANCE

1. When in the interest of their respective activities, either Party may seek the other's technical expertise and co-operation. In this regard, executing agency agreements, co-operation agreements and letters of agreement on specific programmes will be elaborated as necessary to clarify the role of each party in the undertakings and to facilitate joint planning of activities.

2. The Parties shall co-operate in the development and implementation of technical assistance programmes at the country, regional and international levels.

3. In this process the Parties may combine their own human and financial resources. The parties shall also collaborate in the identifying appropriate consultants and experts to implement joint programmes and to assist in technical programmes undertaken by either organization.

4. The implementation of joint programmes shall be subject to the availability of adequate resources to be determined for each activity by both Parties in accordance with their respective relevant regulations and rules.

5. Joint project activities shall be subject to the approval of individual project documents by both Parties and to periodic evaluation to be agreed upon. They shall also form part of the programme of work approved by the policy-making bodies of the Parties.

ARTICLE IV: TECHNICAL MEETING AND MISSIONS

1. The Parties will consult each other to ensure the greatest possible degree of co-ordination in regard to meetings and missions of technical expertise concerning questions in which both Parties have an interest.

2. Whenever appropriate, the Parties shall consult each other on their country, regional and international level programmes and projects.

3. The Parties may, in appropriate cases, agree to sponsor on terms to be arranged in each particular case, joint consultations and technical meetings concerning questions in which both Parties have an interest. The manner in which action recommended by such joint consultations and meetings is undertaken shall be agreed between the two Parties.

ARTICLE V: GENERAL PROVISIONS

1. This Memorandum of Understanding will take effect upon signature by both Parties and will remain in force unless terminated by mutual consent or by either Party giving six months' written notice of termination to the other Party. The provision of this memorandum will, however, remain in force beyond the date of such termination to the extent necessary to permit an orderly completion of activities and settlement of accounts between the Parties.

2. The Memorandum of Understanding may be modified by mutual written consent. Each part will give full and sympathetic consideration to any proposals advanced by the other Party to that effect.

3. In witness whereof, the undersigned, being duly authorized thereto, have on behalf of the Parties hereto signed this Memorandum of Understanding on the day and year below written .

Done in Brussels/Geneva on. 17 November 1997

Signed by:
Dr. Iwona RUMMEL-BULSKA
Executive Secretary
Basel Convention Secretariat

Signed by:
James W. SHAVER
Secretary General
World Customs Organization

BAMAKO CONVENTION

Bamako Convention on The Ban of the Import into Africa and the Control of Transboundry Movement and Management of Hazardous Wastes Within Africa

TEXT OF THE CONVENTION

The Parties to this Convention,

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

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

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

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

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

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

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

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

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

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

11. Taking into account the Declaration of the United Nations Conference on the Human Environment (Stockholm, 1972), the Cairo Guidelines and Principles for the Environmentally Sound Management of Hazardous Wastes adopted by the Governing Council of the United Nations Environment Programme (UNEP) by Decision 14/30 of 17 June, 1987, the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods (formulated in 1957 and updated biennially), the Charter of Human Rights, relevant recommendations, declarations, instruments and regulations adopted within the United Nations System, the relevant articles of the 1989 Brussels Convention on the Control of Transboundary Movements of Hazardous wastes and their Disposal which allow for the establishment of regional agreements which may be equal to or stronger than its own provisions, Article 39 of the Lome IV Convention relating to the international movement of hazardous wastes and radioactive wastes, African intergovernmental organizations and the work and studies done within other international and regional organizations,

12. Mindful of the spirit, principles, aims and functions of the African Convention on the Conservation of Nature and Natural resources adopted by the African Heads of State and Government

in Algiers (1968) and the World Charter for Nature adopted by the General Assembly of the United Nations at its Thirty-seventh Session (1982) as the rule of ethics in respect of the protection of the human environment and the conservation of natural resources,

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

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

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

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

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

ARTICLE 1: DEFINITIONS

For the purpose of this Convention:

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

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

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

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

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

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

7. «Approval site or facility » means a site or facility for the disposal of hazardous wastes which is authorized or permitted to operate for this purpose by a relevant authority of the State where the site or facility is located;

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

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

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

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

12. «State of export » means a State from which a transboundary movement of hazardous wastes is planned to be initiated or is initiated;

13. «State of import » means a State to which a transboundary movement is planned or takes place for the purpose of disposal therein or for the purpose of loading prior to disposal in an area not under the national jurisdiction of any State;

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

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

16. « Person » means any natural or legal person;

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

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

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

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

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

22. « Illegal traffic » means any transboundary movement of hazardous wastes as specified in Article 9 of this convention;

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

ARTICLE 2: SCOPE OF THE CONVENTION

1. The following substances shall be « hazardous wastes ». for the purposes of this convention:

   (a) Wastes that belong to any category contained in Annex I of this Convention;

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

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

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

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

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

ARTICLE 3: NATIONAL DEFINITIONS OF HAZARDOUS WASTES

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

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

3. The Secretariat shall forthwith inform all Parties of the information it has received pursuant to paragraphs 1 and 2 of this Article.

4. Parties shall be responsible for making the information transmitted to them by the Secretariat under Paragraph 3 of this Article available to their exporters and other appropriate bodies.

ARTICLE 4: GENERAL OBLIGATIONS

1. **Hazardous Waste Import Ban.**

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

All Parties shall:

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

(b) Co-operate to ensure that no imports of hazardous wastes from a non Party enter a Party to this

Convention. To this end, the Parties shall, at the Conference of the Contracting Parties, consider other enforcement mechanisms.

2. **Ban on Dumping of Hazardous Wastes at Sea and International 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 international waters, territorial seas, exclusive economic zones or high seas all 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 haz-ardous waste audit;

(b) Impose strict, unlimited liability as well as joint and several liability of 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 cooperate 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 permissible emissions approach based on assimilative capacity assumption;

(g) In this respect Parties shall promote clean production methods applicable to entire product life cycles including: - raw material selection, extraction and processing; - product conceptualization, 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 serve a useful fonction; 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 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 of 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.

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.

ARTICLE 5: DESIGNATION OF COMPETENT AUTHORITIES, FOCAL POINT AND DUMPWATCH

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

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

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

3. Inform the Secretariat, within one month of the date of decision, of any changes regarding the designations made by them under paragraph 2 above.

4. Appoint a national body to act as a Dumpwatch. In such capacity as a Dumpwatch, the designated national body only will be required to coordinate with the concerned governmental and non governmental bodies.

ARTICLE 8: DUTY TO RE-EXPORT

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

ARTICLE 9: ILLEGAL TRAFFIC

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

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

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

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

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

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

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

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

4. In the case of a transboundary movement of hazardous wastes deemed to be illegal traffic as the result of conduct on the part of the importer or disposer, the State of import shall ensure that the

wastes in question are returned to the exporter by the importer and that legal proceedings according to the provisions of this Convention are taken against the contravenor(s).

ARTICLE 10: INTRA-AFRICAN CO-OPERATIO

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

2. To this end, the Parties shall:

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

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

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

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

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

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

ARTICLE 11: INTERNATIONAL CO-OPERATION BILATERAL, MULTILATERAL AND REGIONAL AGREEMENTS

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

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

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

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

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

ARTICLE 15: CONFERENCE OF THE PARTIES

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

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

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

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

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

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

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

   (d) consider and adopt protocols as required;

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

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

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

ARTICLE 16: SECRETARIAT

1. The functions of the Secretariat shall be:

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

   (b) To prepare and transmit reports based upon information received in accordance with Articles 3,4,6,11, and 13 of this Convention as well as upon information derived from meetings of subsidiary bodies established under Article 15 of this Convention as well as upon as appropriate information provided by relevant inter governmental and non governmental entities;

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

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

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

   (f) To compile information concerning approved national sites and facilities of Parties to this

Convention available for the disposal and treatment of their hazardous wastes and to circulate this information;

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

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

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

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

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

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

ARTICLE 17: AMENDMENT OF THE CONVENTION AND OF PROTOCOLS

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

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

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

Amendment of Protocols to this Convention

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

General Provisions

5. Instruments of ratification, approval, formal confirmation or acceptance of amendments shall be deposited with the Depository. Amendments adopted in accordance with paragraph 3 or 4 above shall enter into force between Parties having accepted them, on the ninetieth day after the receipt by the Depository of the instrument of ratification, approval, formal confirmation or ac-

ceptance by at least two thirds of the Parties who accepted the amendments to the Protocol concerned, except as may otherwise be provided in such Protocol. The amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, approval, formal confirmation or acceptance of the amendments.

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

ARTICLE 18: ADOPTION AND AMENDMENT OF ANNEXES

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

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

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

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

   (c) Upon the expiration of six months from the date of the circulation of the communication by the Depository, the annex shall become effective for all Parties to this Convention or to any Protocol concerned with the provision of sub paragraph (b) above.

3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any Protocol shall be subject to the same procedure as for the proposal, adoption and entry into force of annexes to the Convention or annexes to a Protocol. Annexes and amendments thereto shall take due account, inter alia, or relevant scientific and technical considerations. If an additional annex or an amendment to an annex involves an amendment to this Convention or to any Protocol, the additional annex or amended annex shall not enter into force until such time as the amendment to this Convention or to the Protocol enters into force.

ARTICLE 19: VERIFICATION

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

ARTICLE 20: SETTLEMENT OF DISPUTES

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

2. If the Parties concerned cannot settle their dispute as provided in paragraph 1 of this Article, the dispute shall be submitted either to an ad hoc organ set up by the Conference for this purpose, or to the International Court of Justice.

3. The conduct of arbitration of disputes between Parties by the Ad Hoc organ provided for in paragraph 2 of this Article shall be as provided in Annex V of this Convention.

ARTICLE 21: SIGNATURE

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

ARTICLE 22: RATIFICATION, ACCEPTANCE, FORMAL CONFIRMATION OR APPROVAL

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

cation, acceptance, formal confirmation, or approval shall be deposited with the Depository.

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

ARTICLE 23: ACCESSION

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

ARTICLE 24: RIGHT TO VOTE

Each Contracting Party to this Convention shall have one vote.

ARTICLE 25: ENTRY INTO FORCE

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

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

ARTICLE 26: RESERVATIONS AND DECLARATIONS

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

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

ARTICLE 27: WITHDRAWAL

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

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

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

ARTICLE 28: DEPOSITORY

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

ARTICLE 29: REGISTRATION

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

ARTICLE 30: AUTHENTIC TEXTS

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

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

Adopted in Bamako, Mali, on 30 January, 1991

DATE OF ENTRY INTO FORCE 22 APRIL 1998

ANNEX I

CATEGORIES OF WASTES WHICH ARE HAZARDOUS WASTES

Waste Streams:

YO All wastes containing or contaminated by radionuclides, the concentration or properties of which result from human activity;
Y1 Clinical wastes from medical care in hospitals, medical centers and clinics;
Y2 Wastes from the production and preparation of pharmaceutical products;
Y3 Waste pharmaceutical, drugs and medicines;
Y4 Wastes from the production, formulation and use of biocides and phyto-pharmaceuticals;
Y5 Wastes from the manufacture, formulation and use of organic solvents;
Y6 Wastes from the production, formulation and use of organic solvent;
Y7 Wastes from heat treatment and tempering operations containing cyanides;
Y8 Waste mineral oils unfit for their originally intended use;
Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions;
Y10 Waste substances and articles containing or contaminated with polychlorinated biphenyl (PCBs) and/or polychlorinated terphenyls PCTs) and/or polybrominated biphenyl (PBBs);
Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment;
Y12 Wastes from production, formulation and use of inks, dyes pigments, paints, lacquers, varnish;
Y13 Wastes from production, formulation and use of resins, latex plasticizers, glues/adhesives;
Y14 Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known;
Y15 Wastes of an explosive nature not subject to other legislation;
Y16 Wastes from production, formulation and use of photographic chemicals and processing materials;
Y17 Wastes resulting from surface treatment of metals and plastics;
Y18 Residues arising from industrial waste disposal operations;
Y46 Wastes collected from households, including sewage and sewage sludges ;
Y47 Residues arising from the incineration of household wastes;

Wastes having as constituents:

Y19 Metal carbonyls;
Y20 Beryllium; beryllium compounds;
Y21 Hexavalent chromium compounds;
Y22 Copper compounds;
Y23 Zinc compounds;
Y24 Arsenic; arsenic compounds;
Y25 Selenium; selenium compounds;
Y26 Cadmium; cadmium compounds;
Y27 Antimony; antimony compounds;
Y28 Tellurium; tellurium compounds;
Y29 Mercury; mercury compounds;
Y30 Thallium; thallium compounds;
Y31 Lead; lead compounds;
Y32 Inorganic fluorine compounds excluding calcium fluoride;
Y33 Inorganic cyanides;
Y34 Acidic solutions or acids in solid form;
Y35 Basic solutions or bases in solid form;
Y36 Asbestos (dust and fibres) ;
Y37 Organic phosphorous compounds;
Y38 Organic cyanides ;
Y39 Phenols ; phenolcompounds including chlorophenols ;
Y40 Ethers ;
Y41 Halogenated organic solvents;
Y42 Organic solvents excluding halogenated solvents;
Y43 Any congener of polychlorinated dibenzo furan;
Y44 Any congener of polychlorinated dibenzo p dioxin;
Y45 Organohalogen compounds other than substances referred to this Annex (e.g., Y39, Y41, Y42, Y43, Y44).

ANNEX II

LIST OF HAZARDOUS CHARACTERISTICS

UN Code Characteristics
Class*

1—H1 Explosive

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

*Corresponds to the hazardous classification system included in b United Nations Recommendations on the Transport of Dangerous Goo. (ST/SG/AC.10/1/Rev.5, United Nations, New York, 1988)

H3 Flammable liquids

The word « flammable » has the same meaning as "inflammable".

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

4.1—H4.1 Flammable solids

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

4.2—H4.2 Substances or wastes liable to spontaneous combustion

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

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

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

5.1—H5.1 Oxidizing

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

5.2—H5.2 Organic peroxides

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

6.1 6.1—H6.1 Poisonous (Acute)

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

6.2—H6.2 Infectious substances

Substances or wastes containing viable micro organisms or their toxins which are known or suspected to cause disease in animals or humans.

8—H8 Corrosives

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

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

Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

9—H11 Toxic (Delayed or chronic)

Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.

9—H12 Exotoxic

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

9—H13

Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above bioaccumulation and/or toxic effects upon biotic systems.

9—H13

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

ANNEX III

DISPOSAL OPERATIONS

D1 Deposit into or onto land, (e.g., landfill, etc.)
D2 Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc
D3 Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc
D4 Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds, or lagoons, etc)
D5 Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
D6 Release into a water body except seas/oceans
D7 Release into seas/oceans including sea-bed insertion
D8 Biological treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Annex III
D9 Physico chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations in Annex III, (e.g., evaporation, drying, calcination, neutralization, precipitation, etc.)
D10 Incineration on land
D11 Incineration at sea
D12 Permanent storage, (e.g., emplacement of containers in a mine, etc.)
D13 Blending or mixing prior to submission to any of the operations in Annex III
D14 Repackaging prior to submission to any of the operations in Annex III
D15 Storage pending any of the operations in Annex III
D16 Use as a fuel (other than in direct incineration) or other means to generate energy
D17 Solvent reclamation/regeneration
D18 Recycling/reclamation of organic substances which are not used as solvents
D19 Recycling/reclamation of metals and metal compounds
D20 Recycling/reclamation of other inorganic materials
D21 Regeneration of acids and bases
D22 Recovery of components used for pollution abatement
D23 Recovery of components from catalysts
D24 Used oil re refining or other reuses of previously used oil
D25 Land treatment resulting in benefit to agriculture or ecological improvement
D26 Uses of residual materials obtained from any of the operation. numbered D1 D25 D27 Exchange of wastes for submission to any of the operations numbered D1 D26 D21 Accumulation of material intended for any operation in Annex III

ANNEX IV

A - INFORMATION TO BE PROVIDED ON NOTIFICATION

1. Reason for waste export
2. Exporter of the waste 1/
3. Generator(s) of the waste and site of generation 1/
4. Importer and Disposer of the waste and actual site of disposal 1/
5. Intended carrier(s) of the waste or their agents, if known 1/
6. Country of export of the waste Competent authority 2/
7. Countries of transit Competent authority 2/
8. Country of import of the waste Competent authority 2/
9. Projected date of shipment and period of time over which waste is to be exported and proposed itinerary (including point of entry and exit)
10. Means of transport envisaged (road, rail, sea, air, inland waters)
11. Information relating to insurance 3/
12. Designation and physical description of the waste including Y number and UN number and its composition 4/ and information on any special handling requirements including emergency provisions in case of accidents
13. Type of packaging envisaged (e.g., bulk, drummer, tanker)
14. Estimated quantity in weight/volume
15. Process by which the waste is generated 5/
16. Waste classifications from Annex II of this Convention: Hazardous characteristics, H number, and UN class
17. Method of disposal as per annex III of this Convention
18. Declaration by the generator and exporter that the information is correct

NOTES

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

2/ Full name and address, telephone, telex or telefax number.

3/ Information to be provided on relevant insurance requirements and how they are met by exporter, carrier, and disposer.

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

5/ In so far as this is necessary to assess the hazard and determine the appropriateness of the proposed disposal operations.

19. Information transmitted (including technical description of the plant) to the exporter or generator from the disposer of the waste upon which the latter has based his assessment that there was no reason to believe that the wastes will not be managed in an environmentally sound manner in accordance with the laws and regulations of the country of import. 20. Information concerning the contract between the exporter and disposer.

B- INFORMATION TO BE PROVIDED ON THE MOVEMENT DOCUMENT

1. Exporter of the waste 1/
2. Generator(s) of the waste and site of generation 1/
3. Disposer of the waste and actual site of disposal 1/
4. Carrier(s) of the waste 1/ or his agent(s)
5. The date the transboundary movement started and date(s) and signature on receipt by each person who takes charge of the waste
6. Means of transport (road, rail, inland, waterway, sea, air) including countries or export, transit and import, also point of entry and exit where these have been designated

NOTES

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

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

7. General description of the waste (physical state, proper UN shipping name and class, UN number, Y number and H number as applicable)
8. Information on special handling requirements including emergency provisions in case of accidents
9. Type and number of packages
10. Quantity in weight/volume
11. Declaration by the generator or exporter that the information is correct
12. Declaration by the generator or exporter indicating no objection from the competent authorities of all States concerned
13. Certification by disposer of receipt at designated disposal facility and indication of method of disposal and of the appropriate date of disposal.

ANNEX V

ARBITRATION

ARTICLE 1

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

ARTICLE 2

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

ARTICLE 3

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

ARTICLE 4

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

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

ARTICLE 5

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

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

ARTICLE 6

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

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

3. The Parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.

4. The absence or default of a Party in the dispute shall not constitute an impediment to the proceedings.

ARTICLE 7

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

ARTICLE 8

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

ARTICLE 9

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

ARTICLE 10

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

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

3. Any dispute which may arise between the Parties concerning the interpretation or execution of the award may be submitted by wither Party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another tribunal constituted for this purpose in the same manner as the first.