
DEVELOPING A LIABILITY AND REDRESS REGIME
UNDER THE
CARTAGENA PROTOCOL ON BIOSAFETY

*For Damage Resulting from the
Transboundary Movements of
Genetically Modified Organisms*

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EXECUTIVE SUMMARY

In January 2000 the First Extra-ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) adopted the Cartagena Protocol on Biosafety (CPB). The negotiations of the main elements turned out to be too rancorous and protracted to allow for the inclusion of provisions on liability and redress for damage caused by the transboundary movements of Genetically Modified Organisms (GMOs). What finally emerged was a commitment to begin developing international rules on such liability and redress at the first meeting of the Parties to the Protocol and to “endeavor” to complete the process within four years.

This paper has been written to assist in the negotiations for the development of a biosafety liability regime, and is being presented to delegates at the First Intergovernmental Committee of the Cartagena Protocol on Biosafety (ICCP) convening December 11-15 in Montpellier, France. While decidedly legal in nature, the paper has been reviewed by non-lawyers to ensure it will be understandable to any person seriously interested in devising a fair and balanced international liability regime for GMOs.

In Part A, the paper sets out the basic rules of international law dealing with State responsibility for liability and redress with regard to environmental harm. These laws apply whether or not the Cartagena Protocol on Biosafety has entered into force. The obligation not to cause harm to another State’s environment has become a clear principle of international law, established through international decisions as well as state practice. There is also an obligation to inform or notify and to consult and negotiate with other States regarding activities that present a risk of environmental harm. States may be held liable when their actions or omissions violate an international obligation. Furthermore, strict liability – that is, whether or not fault is proven – is evolving to become customary law, especially for activities involving ‘ultrahazardous’ risk (when the probability is low but the consequences may be great.)

Part B examines the key provisions of three international liability instruments that have emerged in the last few years. These are:

- The Convention on International Liability for Damage Caused by Space Objects,
- The Convention on Civil Liability for Oil Pollution Damage, and
- The Basel Protocol on Liability and Compensation Resulting from the Transboundary Movements of Hazardous Wastes and their Disposal.

For each of these conventions (or ‘treaties’), the paper reviews relevant bits of the negotiating history and discusses in detail the main elements which negotiators of future liability regimes may wish to consider. These include:

- Scope – what kind of activity or damage is to be addressed;
- Parties – who may be held liable for damages and under what circumstances, whether persons or States or private entities or their insurers, as well as how liability and compensation costs may be shared amongst responsible parties;
- Compensation – what remedies are to be made available, what limits may be established, what role insurers may play, and whether an international fund is created to help cover the costs; and
- Jurisdiction – where claims may be filed, which courts may become involved, and what time constraints or other considerations may be applicable.

A complete list of the elements to be considered in devising a liability regime appears as an Annex at the end of the paper.

In comparing the way in which the Space Objects Liability Convention, the Civil Liability for Oil Pollution Damage and the Basel Liability Protocol for hazardous wastes deal with these

elements, the paper identifies strengths and weaknesses of each regime – often referring to the negotiating history for reasons why one or another option was finally agreed.

In Part C, this analysis is applied to the biosafety negotiations. The paper considers aspects of the Cartagena Protocol on Biosafety as well as of the nature of genetically modified organisms and the biotechnology industry to evaluate the advantages and disadvantages of the various options. Drawing on the experience of the negotiations for specifying liability for damages resulting from space objects, oil pollution and hazardous wastes, as well as the provisions that are encapsulated in the resulting treaties, the paper then sets out the main elements that could be included in a liability and redress regime under the Biosafety Protocol. Recommendations for selecting among the different approaches for purposes of biosafety and the rationale for the choice are offered.

Some readers may choose to examine Part C only – the part directly applicable to devising a Biosafety Liability Protocol. The paper was written to make this feasible. However, the reasoning behind each recommendation in Part C will undoubtedly be clarified by careful consideration of Part B.

As for Part A, readers will find their understanding of international legal principles and the fundamental rules upon which any subsequent international law must be based is illuminated brightly by the author's straightforward and sensible explanations of terms and concepts.

Indeed, whether or not the Cartagena Protocol on Biosafety is in force, the existing law described in Part A is of course already applicable in cases of damage - environmental, health or socio-economic - attributable to trade in genetically modified organisms. For this reason alone, Part A is important to read!

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OVERVIEW

INTRODUCTION

In January 2000 the First Extra-ordinary Meeting of the Parties to the Convention on Biological Diversity (CBD) adopted the Cartagena Protocol on Biosafety (CPB). The First Intergovernmental Committee for the Cartagena Protocol (ICCP) is scheduled to convene from December 11 to 15 in Montpellier, France. A second ICCP meeting will also be scheduled prior to the Protocol's entry into force as binding international law.

At the first meeting of the Parties to the Protocol after entry into force, the Parties are required by Article 27 of the CPB to begin a process for the development of international rules and procedures for liability and redress in respect of damage resulting from the transboundary movements of Living Modified Organisms (LMOs). The Parties are exhorted to 'endeavour to complete the process in 4 years'.

The Parties are required to analyse and take due account of the ongoing processes in international law on these matters in developing the CPB's liability and redress regime.

SHAPING A LIABILITY REGIME FOR BIOSAFETY

The scheme of this paper is as follows:

First, there is a need to know the applicable rules of international law. Basically what the obligations of a State are depends upon the obligation which the State has agreed to be bound by – usually by becoming a party to an international treaty. But there are also certain other secondary rules that determine State obligations. These are generic in nature. These are identified and discussed.

Second, there is an examination of how concepts relevant to the determination of liability and compensation are dealt with in multilateral treaties in other fields of activity.

Third, conclusions are drawn for the possible elements to include in a liability protocol for GMOs.

It is hoped that this paper will assist those involved in the process for negotiating a Biosafety Liability Protocol to understand the basis on which liability and compensation for environmental harm is approached; and that it will help identify the elements that could be included in such a Protocol.

This paper is divided into three parts.

Part A sets out the broad general principles of State responsibility for environmental harm; and outlines the specific principles of international environmental obligation.

These broad and specific principles are the rules accepted in international law relating to State responsibility. The rules will govern any decision in a specific inter-state dispute regarding harm to the environment. It is important to know these rules for the following reasons:

- First, the specific provisions of a liability protocol will be based upon obligations and responsibility of States that exist in international law. It is hence important to

know what these principles are. It will be particularly useful in the negotiating process for this protocol.

- Secondly, even after a liability protocol is successfully negotiated, State responsibility continues to remain important if the treaty is inapplicable or insufficient in a given situation. It is hence important to know the residue of situations to which this doctrine applies. For example, general principles will apply to States that are non-parties to a specific treaty such as the CPB.
- Thirdly, a State's international obligation to prevent harm requires that it controls any harm-producing activity and, if it has not done so in accordance with established standards, it will remain liable for any resultant harm. The need for, and the emergence of, specific liability regimes – through protocols or conventions, for example – is to overcome problems associated with the weaknesses in enforcing claims for environmental harm by placing reliance solely on inter-state claims.¹ The specific provisions of treaties seek to avoid some of these problems by, for example, channelling some of a State's liability back to the owners or operators concerned. There is also increasing reliance on national tribunals for transboundary disputes reflecting the general trend to rely on civil liability rather than State responsibility as the primary remedy. But, it is important to remember that the State does not discharge its own responsibility for environmental damage by entering into these 'channelling' conventions even when the harmful activity is conducted by a private individual or company. Some conventions or treaties expressly preserve and reiterate State liability. For example, Article 16 of the recently concluded Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal provides that the Protocol is not to affect the rights and obligations of Parties under the rules of general *international law* with respect to State responsibility.

Part B identifies the possible main elements that could be included in a regime relating to liability and redress for damage resulting from transboundary movements of potentially harmful materials; and examines how these elements have been, or are being, developed in other fields. We will look specifically at the Convention on International Damage Caused By Space Objects, Convention on Civil Liability for Oil Pollution Damage, and the Basel Protocol on Liability and Compensation Resulting from the Transboundary Movement of Hazardous Wastes and their Disposal.

Part C draws conclusions as to the main elements that could be proposed for inclusion in the liability and redress regime to be developed under the Cartagena Protocol on Biosafety (CPB).

¹ These include:

- The lack of international fora to prefer claims;
- The difficulty of identifying the precise nature of the obligation breached;
- The uncertainties and delays in international court proceedings;
- The evidentiary problems of proving damage;
- The difficulty of resolving highly technical and scientific aspects of the problem;
- The additional delays for claims by injured individuals and other non-State bodies;
- The uncertainties as a result of the unsettled nature of much of customary law.

See generally Brian Smith, *State Responsibility and the Marine Environment* [Clarendon Press: Oxford] 1988.

PART A

I. THE GENERAL PRINCIPLES OF STATE RESPONSIBILITY AS APPLICABLE TO ENVIRONMENTAL HARM

1. Responsibility

The State is the juridical person responsible for the breach of an international obligation. Responsibility is the principle which establishes an obligation to make adequate reparation for any violation of international law producing injury, committed by the respondent State.² State responsibility is said to exist when:

‘conduct consisting of an action or omission is attributable to the State under international law; and that conduct constitutes a breach of an international obligation of that State.’³

2. Type of conduct constituting breach of obligation: generic principles

Responsibility arises when an international obligation is breached. The question in each case is whether the conduct of the State constitutes a breach. When does this breach occur? It occurs when the State has either breached an obligation in a treaty or convention to which it is a party; or, apart from such a treaty or convention, when it acts in violation of a duty generally recognised as existing in international law.⁴

An example of such a duty is that affirmed by the decision of the *Trail Smelter Arbitration Tribunal*⁵ to protect other states against injurious acts by individuals from within its jurisdiction. Thus aside from a specific obligation we can identify certain generic principles as to the type of conduct that may place a state in breach of an international duty. These generic principles of State responsibility will be discussed in this part of the paper.

2.1 Nature of conduct

Conduct may be positive or negative in character.

- a. It is said to be positive in character when a State commits an affirmative act that violates an international obligation;
- b. It is described as negative in character when a State omits to perform an act required of it under international law.

The following preliminary points may be noted:

² Eagleton, *The Responsibility of States in International Law* 22 (1928).

³ International Law Commission (ILC), Report to the General Assembly, *Yearbook ILC i179*, UN Doc. A/9010/Rev. 1(1973).

⁴ International law can be found in usages or general practice generally accepted by States as law or as expressing principles of law.

⁵ Award II (1941) 3 *RIAA* 1905 at 1963.

- The acts or omissions of the State violative of international obligations will attract State responsibility regardless of whether its national law requires, permits or prohibits such conduct;
- An obligation may be violated either by a single act of pollution, or by the cumulative effect of several independent acts which, standing alone, may not constitute a breach;
- A State may be held liable if its acts or omissions (by itself not in breach of any primary obligation) aid or assist another State in the breach of its international obligations.

2.2 Fault

It is a traditional principle of international law that the State can only be liable if it is at fault for its acts or omissions. So fault must be shown if a State is to be made liable. But how is this fault established?

There are two senses in which the term 'fault' may be used to establish State responsibility.

- a. Proof of a State's malicious intent or culpable negligence (*subjective fault*);
- b. Proof of the mere violation of international law (*objective fault*).

The objective fault doctrine [that is (b), above] seems the preferred approach for attaching liability under the generally accepted rules of State responsibility common to all international obligations. This does not mean that intention/negligence is never required to be shown to establish State responsibility in a specific case. Such a requirement may still arise as a specific obligation imposed, for example, by a provision in a convention; but this requirement is not a condition imposed by the general rules of State responsibility. The content of the international obligation and thus of State responsibility may, consistently with this objective approach, vary. It may be either strict in some cases or require malice or negligence in other cases. The objective doctrine then does not deny that fault (*culpa*) may be a basis for responsibility of a State – it merely denies that there is a generally applicable rule that exists that fault *must* be established in all cases to found State responsibility.

The existence of two categories of obligations where intention is not required in international law shows clearly that there is no such generic rule that applies in all situations that fault must always be established to found liability:

- a. Where obligations are breached by the positive acts of the State (through its organs or its representatives), then State responsibility attaches without more.
- b. Where the obligation imposed is '*strict*', that is, liability attaches without proof of fault. Then again State responsibility attaches without the need to prove intent or due diligence.

3. Who is responsible?

The State is the actor. When it violates an international rule or obligation and damage results, then it is liable. But the State is an abstraction. So the question that arises is: for whose acts is the State responsible?

Two such categories of persons may be identified, namely, state organs or its representatives and private individuals.

3.1 State organs or representatives

Persons or organs vested with public authority to carry out the functions and attributes of a state become the agents of the State.

- *How are these people identified?*

Internal national law may vest powers of this sort. So the acts and omissions of those bestowed with such powers at a municipal level will bind the State at the international level. The State, not its agents, will be liable. Thus governmental powers carried out by any legislative, judicial or the executive or administrative authority of the State will attract international State responsibility. This is a *subjective* determination.

- *By reference to international law*

Independently of municipal law, international law may operate to treat the action as attributable to the State. This is an *objective* determination.

If there is a public character of the function in the performance of which the act or omission contrary to international law was committed, then the individual's act may be attributed to the State. The State then becomes liable.

- *If the conduct is not authorised, whether it is attributed to the State by municipal or international law?*

Generally such conduct may still be attributed to the State. But there are limits to the attribution of such conduct especially in the case of acts of private individuals.

3.2 Private individuals

Generally it is accepted that private conduct is not attributed to the State. Only the conduct of the State itself may trigger State responsibility. But this does not mean that an act of an individual can never be attributed to the State for purposes of attributing State responsibility. The attribution arises when it could be said that the State was involved by complicity. It stood by when it should have either prevented the conduct or punished the conduct. In such a situation, the private individual is wholly liable for the act; but the State may be liable for not diligently pursuing and properly punishing the wrong doer.

3.3 The State's obligation of due diligence

The obligation of the State is to exercise due diligence to prevent conduct which if committed by the State would mean a breach of its international obligations. If such conduct nevertheless occurs, it must diligently pursue the apprehension and punishment of the offenders. The factors in deciding due diligence are:

- a. If it is feasible for the State to take effective action; If no reasonable degree of diligence could have prevented the event, then responsibility will not attach.

How should this be assessed: in the light of the capabilities and practices of the State, or, according to international standards? Several international arbitration awards have applied the objective test of due diligence -- that is, by reference to

international law. But there is growing support for the subjective approach – treating as relevant the specific circumstances of the State. The views can be reconciled. The diligence of the State will be considered in the light of its capacity and practices; but responsibility will attach in any event if the conduct falls below an international minimum standard.

- b. The level of interest at stake in a particular case.

Some situations or conduct require a stricter level of diligence. If, for example, the State is held to a strict standard of responsibility (liability without proof of fault), then the State must prevent the conduct. Failure to do so is a failure of due diligence.

- c. In certain circumstances the State may be required to exercise due diligence for conduct outside the state - territorial or extraterritorial legal authority (or both), to satisfy the requirements of due diligence.

The State must exercise all means possible to prevent and punish conduct *anywhere*, which if it had committed itself would violate international law. To the extent that it has legal authority to do so, it should act. So, if it has that authority to deal with such conduct wherever it occurs, due diligence requires that it so acts.

4. Multiple state responsibility

Sometimes for one event several states may be liable. This may happen when several States engage in concerted action that is a breach of international law. Or, when more than one State acting independently in respect of a single event cause damage. Thus, for example, several States may engage in conduct that, in the aggregate, seriously damages another state. Or there may be a case of overlapping state jurisdictions. Of course if more than one State breaches its obligations to an injured State, each of them is liable. But what are the consequences to each State?

The general consequence is to make reparation. This consists of:

- a. restitution, which restores the situation to the position before the breach;
- b. pecuniary compensation, which is awarded when restitution is not possible or inadequate; and
- c. satisfaction, which applies to non-material breaches.

Multiple state responsibility arises only in the case where the remedy is pecuniary compensation. This is because the injured State cannot claim more than the total aggregate compensation for its injury. The question then arises: how is this compensation to be borne by the several States responsible for that injury?

Based on the limited decisions of international tribunals such as the International Court of Justice, State practice, analogies with national municipal decisions, and first principles of international law, it may be possible to summarise the position as follows.

- Where harm is caused by the concerted action of two or more States, then liability is joint and several. This means that the injured State can sue any one of the wrongdoers for the full compensation; and the States can then seek contribution from each other, based on the justice of the case and the relative blame of the

parties.⁶ State practice is to the same effect. Article V of the Convention on International Liability for Damage Caused by Space Objects makes States jointly launching space objects jointly and severally liable for damage, with the right of contribution between wrongdoers.

This scheme is justifiable as, generally, the innocent and injured State must be given the greatest opportunity to obtain full compensation; and the States participating in a common activity can establish before undertaking the activity a mechanism to resolve disputes amongst themselves through an agreement. They can, for example, agree to indemnify each other in an agreed proportion depending on their view of the risk.

- For independent wrongdoers, Article IV of the Convention on International Liability for Damage Caused by Space Objects provides a remedy against *either* wrongdoer. The injured State can sue either wrongdoer for the full damage, even if one of them was exclusively and patently to blame. As between the two launching States, blame is based on comparative fault.

In this case the States have not acted in concert, and until the injury occurred, they had no linkage to each other. It is really a policy choice to attach greater importance to the fact that the injured State should obtain adequate compensation. If the acts of any one State could have been sufficient to cause the harm, then there appears to be no difficulty in principle. But the problem arises when a State that is responsible only to a small degree is held liable for the whole of the massive damage, and, is unable to obtain contribution from the other wrongdoer. One alternative is to apportion liability according to fault. However this may leave the injured without full or adequate damages for a variety of reasons. The real question then is who is to bear the risk of loss? The injured (by not obtaining the compensation) or the members of the set of wrongdoers (by not obtaining contribution between themselves)? It is clear that the burden should fall on the wrongdoers.

The damages are then apportioned among wrongdoers through a contribution process. The facts will determine the proportion of the damages to bear: such as, the degree of fault, the extent of participation in the wrong, and the relative capacities of the parties to prevent the wrong.

If the injured State contributes to its own injury then this will be taken into account to apportion blame and reduce the damage payable.

- International tribunals also use their wide discretionary powers to reduce damages if it is equitable to do so, such as where the damage is caused or aggravated by another cause or event for which the wrongdoers cannot be held responsible.

⁶ *Anglo-Chinese Shipping Co Ltd v U.S.* 349 US 938. *Case of the Treatment in Hungary of Aircraft of the USA* [1954] ICJ 99. The US asserted joint and several liability in its pleadings against the USSR and Hungary.

II. SPECIFIC PRINCIPLES OF ENVIRONMENTAL OBLIGATIONS OF A STATE

1. Not to cause harm to another's environment

- There is now a clear **principle of international law** that a State should not use its territory to damage that of another – encapsulated in the ‘*sic utero tuo alienum non laedes*’ principle.⁷ This is the basis of the operative principle of international law: the obligation to prevent transboundary harm. **International decisions** clearly establish this principle (*The Trail Smelter Case*⁸, *The Corfu Channel Case*⁹, *the 1974 Nuclear Tests Cases* - in particular the opinion of Judge De Castro¹⁰, *the Lac Lanoux Arbitration*¹¹).
- **State practice** also makes this principle clear: the submission of Australia and New Zealand in the *Nuclear Tests Cases* alleged injury in and to state territory through the dispersion of radioactive materials as an alternative basis of French responsibility.¹² Also the US was in tacit agreement in response to Mexico's protests to control stockyard fumes in Texas which were causing injury to Ciudad in Mexico.¹³ See also the claims and responses on the question of industrial emissions across the French-German and Swiss-German borders.
- And of course the **posture of States in international negotiations** reaffirms this fundamental principle. Examples include the UN Conference on the Law of the Sea resulting in the Law of the Sea Convention - Article 194(2); the UN Charter of Economic Rights and Duties of States; the Stockholm Declaration on the Human Environment; and the London Dumping Convention, 1972.

The basis then is a clearly evolved rule of customary international law. The rule does not limit itself to conduct within a territory but extends to conduct in any location over which the State is in a position to take preventative measures. This is particularly the case in marine pollution as evidenced by Principle 7 of the Stockholm Declaration:

“States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.”

The principal multilateral anti-pollution conventions also do not limit the responsibility of States to the territorial locus of the source.¹⁴

⁷ ‘Use his own so as not to damage that of another.’

⁸ (1941) (US v Can), 3 Int'l Arb. Awards 1905. Obligation of Canada for damage in the US from sulphur dioxide fumes drifting from a private smelting operation in Trail, Canada. The Tribunal held: ‘*under the principles of international law, as well as the law of the US, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.*’ (at p. 1965).

⁹ UK v Albania [1949] ICJ 4 at 22.

¹⁰ Australia v France [1974] ICJ 253, at 388-9. The majority did not deal with this issue.

¹¹ Spain v France 1957, 12 R. Int'l Arb. Awards 281.

¹² [1978] ICJ Pleadings vol i at 14; vol ii at 8.

¹³ Whiteman, 6 Dig. Int'l L. 256-7 (1908).

¹⁴ 1972, London Dumping Convention, Article 1; Convention for the Protection of the Mediterranean Sea against Pollution, Barcelona, 1976; Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Oslo, 1972.

Where the activities of *State organs* cause damage to the territory of another, then liability of the State producing the injury is clear. But what if private individuals cause the environmental injury in their purely personal capacity? Then too the State has an obligation to prevent the harm by conduct that is amenable to its jurisdiction. This is also made clear by the Law of the Sea (LOS) Convention, the Stockholm Declaration and the Charter of Economic Rights and Duties of States: each imposes a duty to ensure that conduct within the jurisdiction or control of the State does not injure the environment of any other State.¹⁵ ‘*Jurisdiction*’ refers to the geographic zone or territory; ‘*control*’ extends this to areas beyond, such as, in the context of marine law, to the continental shelf, contiguous zones and the exclusive economic zones – in respect of which international law recognises the jurisdiction of States. So due diligence would require States to exercise authority over the private activities in these areas as well as to prevent harm to the environment of another state.

The second aspect of ‘jurisdiction and control’ refers to subject matter that is not defined in geographic terms. This extends authority and responsibility to prohibit any conduct regardless of locus. The best example is the duty of a State in respect of a ship flying its flag to prevent it from engaging in conduct harmful to the environment of another country. Similar provisions exist in the 1967 Outer Space Treaty. Article 6 makes States responsible for the consequences of national activities in outer space whether by governmental or non-governmental bodies. A suggested interpretation of ‘national activities’ includes activities of nationals even from an extraterritorial launch. Recommendation 86 of the Action Plan for the Human Environment adopted at the Stockholm Conference recommends that States ‘*ensure that ocean dumping by their nationals everywhere ... is controlled.*’ The 1982 LOS Convention in its general introductory Statement implies a duty to take all possible steps, including the exercise of extraterritorial authority, to prevent marine pollution. Article 139 is more explicit. With regard to activities in the resources of the sea-bed beyond national jurisdiction, State Parties are responsible for any such activity carried out by natural or juridical persons which possess the nationality of State Parties or are effectively controlled by them or their nationals.¹⁶

- Two specific procedural duties, emanating from the general obligation to prevent environmental harm to other States, have emerged as customary legal rules:
 - a. the obligation to *inform or notify*, and
 - b. to *consult and negotiate* regarding activities presenting a risk of environmental harm.

These obligations exist in both doctrine and practice.¹⁷ However it is equally clear that it is not an additional condition to undertaking such activities that there must be an agreement following notice and consultation.¹⁸

¹⁵ Respectively: articles 194(2), Principle 21; Article 30.

¹⁶ The US Draft of 1975 proposed in the course of the negotiations was expressed more broadly to require states to implement marine pollution laws to international standards or higher with respect to any spatial areas over which they possess jurisdiction, flag vessels, and nationals.

¹⁷ The treaty between France and Spain (year?) required procedures of information and consultation before commencement of any activity interfering with the resource rights of the other state. Other examples include: Charter of Economic Rights and Duties of States; ILA’s Helsinki Rules on the Uses of Waters of International Rivers, and its Montreal Rules regarding ‘Transfrontier Pollution’; the Paris Convention for the Prevention of Marine Pollution from Land-Based Sources and the LOS Convention.

If there were no such notification or consultation, there would then be a breach of an international obligation. What follows would be the obligation to cease the breach (to notify and consult); and the obligation to make the necessary reparation (in the form of satisfaction that applies to non-material breaches). The failure to take the procedural steps could affect the measure of apportionment of reparation.

2. What if the harm is to the environment outside the territory of any state, for example, the high seas?

This depends upon whether the harm is to the environment of the high seas or to the exclusive interest of a State.

- *Harm to the exclusive interests of a State*

Such harm may be either to the environment outside the territory of any State (for example, the high seas) or to the particular interests of individual States which are situated in close proximity to that environment. Generally no obligation to prevent harm to such environment exists. States are at liberty to use that environment subject only to the obligation to act with reasonable regard to the interests of other States in the exercise of their own right. However an extension of the *sic utero* principle (use one's own so as not to damage another's use) would require States to endeavour to prevent injury to the individual interests of other States through conduct affecting the environment. For example, Japanese nationals sustained injuries while on the high seas when the US conducted nuclear weapons tests in the South Pacific in 1954. Japan received \$2 million as compensation. Decisions of International Tribunals¹⁹ support this State practice.²⁰

A further example is in relation to an area defined as being in the exclusive interest of a State such as the exclusive economic zone (areas carved out of the high seas over which coastal States enjoy exclusive rights of resource exploitation). Environmental injury affecting the resources in these zones constitutes harm to the exclusive interests of a State. There is a clear obligation to prevent environmental harm to these interests in these zones as well as to users. This is made explicit in, for example, The London Convention on Civil Liability for Oil Pollution Resulting from Exploration for and Exploitation of Sea-bed Mineral Resources. The Convention regulates pollution damage as well to '*areas which in accordance with international law it (a State) has sovereign rights over natural resources.*' The resources are either the property or in the control of the State.

- *Harm to the common interest*

Here the interest of all States in maintaining the integrity of the common environment is at stake. Both doctrine and State practice suggest that there is a similar obligation to

¹⁸ In the context of GMOs, even without the Biosafety Protocol, it is suggested that there would be an obligation to inform and notify the importing State as well as to consult and negotiate for activities relating to GMOs that present a risk. However there would be no obligation equivalent to the Advanced Informed Agreement (AIA).

¹⁹ Example: *I'm the Alone* (Canada v US) 3 R. I.A.A. 1609, 1933-5.

²⁰ Relating to nuclear weapons tests conducted in the South Pacific. The obligation to prevent injury to users of the high seas arising out of the environmental consequences of territorial conduct is also implied in the positions adopted by Australia and New Zealand in the *Nuclear Tests* Cases regarding French weapons tests [1978] ICJ Pleadings, vol. i at 14; and vol. ii at 8.

prevent harm to the shared resources of this environment. Some suggest that the user must be reasonable; others, that any harm to the high seas is unreasonable in any event.

An example in relation to the high seas is instructive. There seems to be clear recognition of an affirmative obligation to prevent injury to the resources in the high seas. An abundant number of **multilateral conventions** testify to this: 1973 Convention for the Prevention of Pollution by Ships; Law of the Sea Convention, Article 211 relating to pollution from vessels; High Seas Convention, Article 25 relating to the intentional dumping of radioactive wastes; 1972 London Dumping Convention, preventing dumping of any substance harmful to the high seas environment. **State practice** supports the existence of the obligation. Writers describe it variously as a 'trend', an 'innovation' and an established customary rule. The preponderance of opinion accords the principal customary legal status.

Who has the right to invoke the responsibility of another State for the harm to the common interest of all? Can the equivalent of the 'public interest' in municipal law be invoked to give standing to bring an action on behalf of all? The progression of ICJ opinion seems to recognise the emergence of a place for this doctrine. Some commentators have advocated this as well for the protection of common environmental interests.

3. What of the harm to the environment as a whole caused by the activities of a state within its territory?

There is an assumption, now widely acknowledged, that there is environmental unity in the global environment and a recognition that what is carried out within its territory may affect the interest of other States. No preventive international obligation exists. The State has a sovereign right to carry out any activity within its territorial jurisdiction. However, there are a number of instances of practice where an international *interest* in the preservation of each State's territorial environment has been recognised and specific obligations accepted.²¹ But no *legal responsibility* for injury to environmental resources within State territory is recognised. Instead the sovereignty of the State over its resources is reiterated unless, of course, it causes external harm.

²¹ The London Dumping Convention and several regional treaties on the same model require State-parties to prevent the dumping of specified wastes outside and within territorial waters. See further: The Convention for the Prevention of Marine-based Pollution from Land-based Sources, Paris, 1974.

III. STANDARD OF PERFORMANCE: STRICT OR FAULT-BASED?

What kind of standard is imposed on the State obliged to prevent damage to other States? The general rules of State responsibility do not establish any standard. Nor is there any generic requirement, as discussed earlier, that intention or negligence of the offending State must be proved to found liability. The question here to consider is whether, and to what extent, the principle of strict liability (liability established without proof of fault) has been accepted in customary international environmental law.

The cases usually cited to support the existence of strict liability as a standard for the performance of environmental obligations – the *Corfu Channel Case*²² and the *Trail Smelter Arbitration*²³ – are beset by interpretation problems. The pronouncements from these international decisions can be, and often are, used in support of quite contrary views. More persuasive authority may be gleaned from State practice. Also, several important multilateral conventions dealing with environmental harm incorporate strict liability regimes. These include the following:

In relation to civil liability for harm arising from nuclear activities:

- The Vienna Convention on Civil Liability for Nuclear Damage, 1963;
- Brussels Convention on the Liability of Operators of Nuclear Ships, 1962;
- Paris Convention on Third Party Liability in the Field of Nuclear Energy, 1960;
- The Convention Supplementary to the Paris Convention of 1960, 1963.

In relation to the pollution of the sea by oil:

- Brussels Convention on Civil Liability for Oil Pollution Damage, 1969;²⁴
- London Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources.

Damage from objects in space:

- The Convention on International Liability for Damage caused by Space Objects, 1972²⁵.

²² (UK v Albania) [1949] ICJ 4.

²³ (1941) (US v Canada) 3 RIAA 1905. See also the *Gut Dam Arbitration*: Flood damage caused to the US by Canadian construction of a dam. Canada agreed to settle. And the *Lac Lanoux Arbitration* (1957) (Spain v France) 12 RIAA 281: Spain complained of France diverting waters from a French Lake into a hydroelectric system. The Award rejected the claim as no injury was shown. The water was returned to the river which normally drained from the lake into Spanish territory. The Tribunal said that if injury had been alleged through, for example, chemical pollution, Spain would have a case.

²⁴ Deals with civil liability for any damage from the discharge or escape of oil from privately owned or state commercial vessels. Fault is only an aggravating factor.

²⁵ A launching state is absolutely liable to pay compensation for damage caused by its space object on the surface of the earth or to aircraft in flight. For surface damage, including environmental injury, there is absolute liability. Articles 2 and 3. The liability is expressed as absolute and not strict as the only exoneration is gross negligence or an act or omission on the part of the victim or of the claimant done with intent to cause damage [Art VI(1), see *infra*]. But the terms are used interchangeably: Cheng, 'A Reply to Charges of having ... misused the term absolute liability ...' 6 AASL (1980) pp. 3-13; Jenks, *loc. cit.* p. 1881. Generally absolute liability allows for no exoneration at all once damage is proved. Strict liability allows for exoneration in certain situations, see text at footnote 42 later.

State practice suggests that the principle of strict liability is evolving to become customary law. This is especially true for activities involving ultrahazardous risks: as examples – Canadian claim against the disintegration of the Soviet Union’s Cosmos satellite over Canadian territory; Liberia’s compromise with Japan for the *Juliana* tanker; Japan’s assertion of US responsibility for the consequences of nuclear testing in the South Pacific.²⁶

There is an emerging consensus in **writings** that strict liability should be accepted for ultrahazardous activities. What constitutes such an activity is not defined. A flexible definition is advocated, embracing most of the serious risks arising out of modern technology. These include activities, which may cause a substantial change in the natural environment of the earth or of another state, significant pollution of air or water and the modification of biological processes.²⁷

A different perspective would confine the customary rule of ultrahazardous strict responsibility to matters specifically so defined in multilateral conventions, such as nuclear activities, operations in space and carriage, the transboundary movements of hazardous and other wastes, or other conduct threatening pollution of the seas by oil or hazardous substances.

There appears to be some differences as to the state of the law on the exact definition of ultrahazardous activities. But the principle of strict liability is firmly established and accepted.

The International Law Commission’s work

The traditional association of wrongfulness with fault did not sit well with the emerging view of strict liability for environmental harm. There was a growing recognition that liability should attach even without fault. The International Law Commission²⁸ has been considering this facet since 1980.²⁹ The ILC perspective is to fix strict liability for particular serious injury without reference to the requirement that the injury arises out of activity that is ultrahazardous. On this view there should be compensation without proof of fault for all ‘material’ injury. As to any lesser injury that is sufficiently material to be legally cognisable, there is still the requirement to show fault.

Further the ILC is of the view that certain injury-producing activities be not prohibited; injury should be tolerated so long as compensation is paid. But if the injury is wrongful, judged in part by the magnitude of the harm, then State responsibility for failure to prevent the harm would include liability and the obligation to end or perhaps reduce the injury.

²⁶ The US tendered payment but did not refer to the question of liability. Contrast this to the US payment to Spain following the Palomares incident. See also the US internal conclusion that customary law established the strict regime in the Space Objects Liability Convention: US Senate, Staff of Comm. On Aeronautic and Space Sciences, 92, Cong. 2nd Sess., Report on Convention 44 (Comm. Print 1972).

²⁷ Jenks, *Liability for Ultrahazardous Activities in International Law*, i. Recueil des cours 100, at 178 (1966) cited in B.D. Smith, *State Responsibility and the Marine Environment* (Oxford: 1988), p. 77, footnote 51.

²⁸ The ILC is a body of the United Nations. It deals with the reform and codification of international law.

²⁹ Under the topic: International liability to injurious Consequences arising out of Acts not prohibited by International law.

Ambit of the rules

The principles on strict liability will apply as well if the harm producer is a private individual if he or she is subject to the State's authority. This applies as well to extraterritorial conduct if the State possesses legal authority - the capacity to control and prevent. Hence the responsibility is for activities within the 'jurisdiction' of the State, not just within the territory. The ILC also speaks of the strict liability rule applying to conduct within the territory or *control* of the State. The control however must be real and meaningful. If the measure of control is the same as for acts within the territory, then the strict standard should apply. If the control is to a lesser degree, then only the failure to exercise the actual lesser authority possessed will create liability.

Finally, as noted earlier, the State is responsible for its own conduct in failing to exercise due diligence to prevent private individuals from causing impermissible injury. The standard of due diligence, in the circumstances where strict liability applies, is raised. Failure to prevent is a failure of due diligence.

PART B

REVIEW OF ELEMENTS IN MULTILATERAL LIABILITY TREATIES

This part of the paper gives a detailed account of liability provisions in three fields of activity: space exploration, carriage of oil by sea and the transboundary movements of hazardous wastes. The main elements of the leading treaty in each of these fields is identified, described and analysed.

I. STATE LIABILITY FOR OUTER SPACE ACTIVITIES: THE CONVENTION ON INTERNATIONAL LIABILITY FOR DAMAGE CAUSED BY SPACE OBJECTS (‘THE SPACE OBJECTS LIABILITY CONVENTION’)³⁰

BACKGROUND

The exploration and exploitation of outer space has resulted in the launch of an incredible number of space objects; many have re-entered the earth’s atmosphere and are still in orbit. Of those space objects, 95% are non-functional – uncontrolled and commonly referred to as space junk or debris. This means there are thousands of pieces of satellites and other objects that have gone out of control and are orbiting the earth. Most of the space objects burn up on entering the earth, but some will survive and land on earth. The potential to cause harm to life and property is therefore a real prospect. Indeed there have been many such recorded incidents. The most publicised – the failed Apollo 13 launch of April 1970, lost its atomic energy reactor that was being transported to the moon. It is said to lie somewhere in the South Pacific Ocean, hopefully not leaking any radiation. In January 1978 a Soviet nuclear powered satellite, Cosmos 954, disintegrated over Canada causing radioactive pollution of an area the size of Austria.

The realisation of the dangers provided the impetus for the creation of a liability regime.

There are several facets of the promulgation of this regime, which have a parallel with a liability regime for Genetically Modified Organisms (GMOs).³¹ First, there were claims that space technology held great promise for mankind; the detractors emphasised the perils. Second, even the States engaged in space exploration could become the victims of a space tragedy caused by other States. There was a clear conflict of interest. ‘Space countries’ wanted to protect themselves against massive legal claims but ensure that they, or their nationals, were adequately compensated in case of damage caused by others’ space activities; they had to protect their nationals against the hazards of a new technology as well as ensure that their industries/scientists responsible for this technology were not crippled by threats of claims. Finally, the liability is in respect of a lawful activity.

³⁰ Adopted on 29.11.1971. Opened for signature on 27.3.1972, entered into force on 1.9.1972: UN GA Resolution 2777 xxvi annex; 961 UNTS 187.

³¹ Initially, the Convention on Biodiversity and the Biosafety Protocol used the term ‘GMO’ to describe genetically modified organisms. This was changed to ‘Living Modified Organisms’ (LMOs) at the insistence of the US, who were concerned that the term ‘GMOs’ would undermine their argument that this technology was no different from traditional breeding.

The legislative basis

In 1967 the Outer Space Treaty came into force. It established that the use of the space environment was subject to limitations and that there could be liability for damage in the event of misuse. Article VII established the principle of such international liability. In 1969 the UN General Assembly identified the need for a liability convention intended to establish international rules and procedures concerning liability for damages caused by the launching of objects into outer space and to ensure, in particular, the prompt and equitable compensation for damages.³² In 1972 the Convention on International Liability for Damage caused by Space Objects (Space Objects Liability Convention) was adopted and entered into force. The Convention contains 28 articles. There is also an optional clause (Art 19). The Convention contains a set of rules that supplement the provisions of the 1967 treaty.

The orientation of the convention

The Space Objects Liability Convention is said to be protective of victims and beneficial to non-space users.³³ Non-space countries had been induced to sign the 1968 Rescue and Return Agreement which obliged them to return to the launching State fragments of space objects which landed on their territory on the understanding that an agreement on liability would be forthcoming.

1. Scope

For what kind of activity?

Liability is for damage caused by a State's space object on the surface of the earth or to aircraft in flight [Art 2]. The space object would reasonably include the component parts as well as the payload – which is the space object and its contents.³⁴

Exclusion of nationals, participants, and invitees

Damage caused by the launching State to the following persons is not compensatory under the convention:

- a. Nationals of the launching State;
- b. Foreign nationals participating in the operation of that space object,³⁵
- c. Foreign nationals in the immediate vicinity of the launching site at the invitation of the launching State.

The first exclusion is based on the principle that international law does not normally deal with relations between a State and its nationals. The remaining exclusions are based on the application of the principle that these persons volunteered to run the risk (*volenti non fit injuria*).

³² GA Res. 2601B (XXIV), 16 December 1969.

³³ Bogaert, *Aspects of Space Law* (Deventer: Kluwer, 1986) at 162-3.

³⁴ See discussion in Carl Christol, *Space Law*, (Kluwer, 1991) at 217-8.

³⁵ From the time of its launching until the descent.

2. Parties

Who is liable?

The Space Objects Liability Convention is applicable as a treaty to the contracting Parties and participating international organisations.³⁶ Participating international organisations do not thereby become contracting Parties to the Convention.³⁷

Liability is of the launching State [Article 2]. This is defined to include a State that launches or procures the launching of a space object; and a State from whose territory or facility a space object is launched. Liability is thus imposed on persons who are directly involved with the activity. Where more than one State is involved then they are jointly and severally liable. Launching is defined to include 'attempted launching.'

So there can be 4 States or categories of States that may be simultaneously liable:

- a. The State which launches the space object;
- b. The State which procures its launching;
- c. The State from whose territory it is launched; and
- d. The State from whose facility it is launched.

Who may claim?

The right to present a claim is accorded to any one of the following States for damage to itself, or to its natural or juridical persons [Article 8]:

- The State itself;
- The State of nationality of the individual victim(s); or,
- The State of permanent residence of the victim(s).

This is also the hierarchy established for the preference of claims. A claim can only be presented if the preceding State chooses not to exercise its right to do so.³⁸

The extension of the right of claim to the State of foreign nationals or to permanent residents appears to represent an advance in the development of international law. Under general international law, a State may present claims against another only in respect of damage suffered by itself or its nationals. Under this Convention, however, victims of damage caused by space objects may recover compensation through three separate channels, namely, their national State, the State where the damage occurs or the State of which they are permanent residents.

If none of the three States present any claim, then the injured is without remedy. One proposal is to empower the UN Secretary General to prefer a claim on his or her behalf. Such recourse exists for situations where an affected State is unable to present a claim, such as when the State has no diplomatic channels with the offending State [Article 9].

Normally too, no international claim can be brought for damage caused to a foreign national unless that national has *exhausted all local remedies available*. This obligation

³⁶ On one view, the principles in the Convention may be regarded as *ipso jure* (simply by operation of the law) and expressive of general international law. Then liability is based on international obligations and not *qua* (by virtue of the) treaty.

³⁷ Bin Cheng, *Studies in International Space Law*, Clarendon Press Oxford, 1997, pp. 310-320.

³⁸ *Quare*: Can a State lower down the hierarchy preempt the other State(s) by presenting a claim before it is notified by other States? What if the other States then present a claim?

is dispensed with in the convention and represents an important development in international law. The right for persons to prefer claims within the national jurisdiction of the launching State is maintained where such remedies exist [Article 11(2)]. In the *Trail Smelter* Case US citizens could not bring an action in the Canadian courts against the Canadian Government for the damage caused by Canadian operators.³⁹ They lacked standing to do so. This problem is obviated in this Convention.

Further, a claimant who had recourse to local remedies and found them wanting is not precluded from then preferring his claim under the Convention.

There is no obligation on the part of the State that succeeds in its claim on behalf of its national to **transfer any part of the monies received to the injured**. Article 12 however provides that the reparation in damages recovered '*will restore the person, natural or juridical ... on whose behalf the claim is presented to the condition which would have existed if the damage had not occurred.*' This should provide a basis for the injured to recover the payments made.

3. For what kind of damage?

The scope of the Space Objects Liability Convention is limited by the kind of damage for which a claim can be made. The damage that can be claimed is defined to mean:

- a. Loss of life;
- b. Personal injury;
- c. Other impairment of health;⁴⁰ or
- d. Loss of or damage to property of States, or of natural or juridical persons or of international intergovernmental organisations.

What of indirect damage and delayed damage? The majority of the delegates to this negotiation regarded the matter as one of proximate or adequate causality - that is how closely and realistically the damage can be related to the cause - which need not be expressed in the Convention. The principles on proximate causality appear to support this view.⁴¹

4. Standard or Basis of Liability

4.1 Two-tier approach

The Space Objects Liability Convention imposes absolute liability,⁴² as well as fault based liability. For damage caused by a space object on the surface of the earth or to aircraft in flight the liability of the launching State is absolute [Article 2]. For damage caused other than on the surface of the earth to a space object of one launching State, or to persons or property on board such a space object, by a space object of another launching State, the offender is liable only if the damage is due to its fault or the fault of persons for whom it is responsible [Article 3].

³⁹ J.E.Rand, 'The Train Smelter Dispute' (1963) 1 Can Y.B.I.L. 213, at 222-3.

⁴⁰ Could include non-physical injury and illnesses and direct and indirect impairments as well: see Hurwitz, *State Liability for Outer Space Activities* (Nijhoff: 1992) pp. 12-18.

⁴¹ Cheng, *General Principles of Law*, Chap. 10, pp. 241-253; Bin Cheng, fn 37, at p. 323.

⁴² As noted earlier, there is no appreciable difference between absolute liability and strict liability. Some consider however that absolute liability is where there is no exoneration once harm is proved, save perhaps for the fault attributable to the claimant. For strict liability, extraneous factors may exonerate, such as Act of God, force majeure, intervening acts of third parties. See footnote 26 supra.

4.2 Absolute liability

It was generally accepted that liability should be absolute because of the difficulty of proving fault or negligence. As the earlier general discussion on State responsibility made clear, normally international law does not impose liability for lawful activities. Any exceptions were based on proof of fault: intention or negligence in causing harm. For ultrahazardous activity, liability is absolute. An activity is regarded as ultrahazardous even if the probability of occurrence is low (quantitative) but the magnitude of the resultant harm is huge (qualitative). The public interest is best served in these circumstances by imposing absolute or strict liability. Three reasons have been advanced to justify the imposition of absolute liability. First, scientific causation is difficult to establish given the nature of the technology and its relative short history. Second, there is secrecy of these space exploration programmes. Accessing the information to establish fault could be unusually difficult. Thirdly, the person who benefits from the activity should bear the cost.

Absolute or strict liability regimes also exist for space activities in other fields, primarily air law⁴³; for nuclear power⁴⁴; and in judicial decisions.⁴⁵ Absolute or strict liability regimes also exist in countries with a diversity of legal systems.⁴⁶

4.3 Fault based liability

There must be proof of fault for collisions in outer space between space objects. These space objects must belong to different launching States [Article 3]. Fault liability was accepted as between two space States as they are expected to know the possible consequences and benefits of the activity. The fault must be that of the State or any person for which it is responsible. It is suggested that the parties contemplated would be individuals, private enterprises or international non-governmental organisations which launched or procured the launching of a space object from the territory of a State party (thus making it a launching State) or astronauts.⁴⁷

Article 3 is ambiguous.⁴⁸ It is not clear whether the launching State is liable for the damage it caused or for the totality of the damage once it is established that it was at fault. If the latter interpretation, then there are two exceptions. First, if it is a case of joint and several liability under Article 4(1), then the two launching States are liable only to the extent to which they were at fault (and equally if the proportion cannot be ascertained). Secondly, under Article 6(1) there may be exoneration from liability if it is established that the claimant State caused the damage either wholly or partially. (See further under 'Exoneration from Liability'.)

⁴³ 1910 Brussels International Convention for the Unification of Certain Rules of Law in regard to Collisions, the 1929 Warsaw Convention for the Unification of Certain Rules relating to International Transportation by Air, 1952 Third Parties Damage Convention.

⁴⁴ The 1960 Third Party Liability Convention, the 1962 Operators Liability Convention and the 1963 Civil Liability Convention.

⁴⁵ For example in the *Trail Smelter* Arbitral Tribunal decisions of 1938 and 1941 Canada was held liable to pay damages to the US without proof of negligence: (1939) 33 AJIL 182 and (1941) 35 AJIL 684.

⁴⁶ G.S. Nijar, *Liability and Compensation in a Biosafety Protocol*, Third World Network, Paper 4, 1997.

⁴⁷ Bruce Hurwitz, *State Liability for Outer Space Activities*, (Martin Nijhoff: Kluwer, 1992) pp. 34-5.

⁴⁸ It reads: In the event of damage being caused elsewhere than on the surface of the earth to a space object of one launching state or to persons or property on board such a space object by a space object of another launching state, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it is responsible.

Liability is, of course, based on the ability to find an offending party. Damage from debris, which cannot be proven to have come from an identifiable source, will not be compensated. Hence it has been suggested that all parties undertaking space exploration contribute to a common compensation fund.

4.4 Exoneration from liability

There will be no absolute liability if the damage is the result of the gross negligence of the claimant State or persons it represents; or is as a result of an act or omission of the claimant State with intent to cause damage [Article 6(1)].

A party claiming exoneration will still have to bear the burden of proving that the claimant State was guilty of the conduct set out in Article 6(1). In the fault liability situation in Article 3, the reverse is the case. The claimant State will have to prove that the offending party was to blame.

A more difficult question is whether the exoneration is total or partial. This is because the Article refers to exoneration being ‘... *granted to the extent that a launching state...*’⁴⁹ This implies different degrees of exoneration. One view States that partial or total exoneration is possible depending on the evidence that the launching State establishes.⁵⁰

The conduct prescribed by Article 6(1) for which the offending State can seek exoneration is not merely that of the claimant State; it extends as well to the acts of natural and juridical persons it represents. This is a departure from normal practice in international law, which does not consider the acts of private persons as acts of the State.

There is no exoneration if the damage results from activities of the launching State that are ‘not in conformity with international law’ [Art 6(2)]. This limitation raises several ambiguities. It is not clear whether the reference is to general international law or to treaties. Secondly, the Article goes on to say ‘*including, in particular, the Charter of the United Nations and the 1967 Space Treaty.*’ These become binding even on those States not parties to them. This is unusual in international law, as non-parties are being obliged to adhere to instruments they never signed on to. Finally, the phrase ‘in particular’ seems to suggest that there may be other treaties to be observed. Thus, this limitation to exoneration leaves significant ambiguity for courts to interpret.

4.5 Joint and several liability

It was noted earlier that there may be up to four States which could be the ‘launching States’ against which claims may be made. So the principle of joint and several liability is implicit in these provisions. Article 5(3) makes this explicit. It provides that whenever two or more States jointly launch a space object, they shall be jointly and severally liable for any damage caused.

⁴⁹ Art VI(1): ‘...exoneration from absolute liability shall be granted to the extent that a launching state establishes that the damage has resulted either wholly or partially from gross negligence or from an act or omission done with intent to cause damage on the part of a claimant state or of natural or juridical persons it represents.’

⁵⁰ M.D.Forkosch, *Outer Space and Legal Liability* (The Hague: Nijhoff, 1982) at 82.

The Space Objects Liability Convention covers all launchings from territories of the contracting parties, whether done by individuals or institutions, authorised or unauthorised, official or private, national or foreign, and the launching intentional or purely accidental.

Further, 'territory' could arguably cover any launching from a ship, aircraft or spacecraft registered in the name of a Contracting Party, or otherwise belonging to it. In any event they would constitute a facility from which space objects are launched.

While the entire damage may be claimed from any one Party liable, Article 5(2) states that Parties may conclude agreements to apportion liability between themselves. Article 13 facilitates any such agreements.

5. Measure of compensation

5.1 The applicable law

The applicable laws to determine the compensation payable that countries variously proposed during negotiations were the following:

- a. In accordance with applicable principles of international law, justice and equity;
- b. In accordance with the national law of the person injured (*lex patriae*);
- c. For special heads of damage (loss of profits and moral damage – that is, non-material damage), in accordance with compensation provided for by the law of the State liable for damages in general (the respondent State);
- d. In accordance with the law of the place where the damage was caused (*lex loci*).

Option (a) was adopted. Article 12 states that the compensation payable shall be determined in accordance with international law and the principles of justice and equity in order to provide reparation ... as will restore the person ... to the condition before the damage.

5.2. Limitation of liability

There is no ceiling as to the amount of compensation recoverable.

5.3. Currency in which compensation is payable

This shall be in the currency of the claimant State, or at its request, the currency of the respondent State. The States may, however, agree on another form of compensation [Article 13].

6. Victims facing large-scale danger

If such danger to human life or serious interference with the living conditions of the population or the functioning of the vital centres of a country are presented by damage caused by a space object, then Article 21 obliges Parties especially the launching State to give assistance. The affected State need not be a Party. But the 'obligation' is merely a weak exhortation to *examine the possibility* of giving assistance.

7. Presentation of claims

7.1 Diplomatic channels

Claims are to be presented through the launching State's diplomatic channels. If the claimant State has no diplomatic relations with that State, then the claim can be presented through a State which has or through the Secretary-General of the UN, if the States are members of the UN.

Must the Third State through which the claim is presented be a Party to the Convention? The position is not clear. Most probably, that Third State must also be a Party (*the pacta tertiis principle*).⁵¹ Claims against participating organisations may also not be made through the UN as these organisations are not members of the UN. Similarly the organisation may not be able to present its claim through the UN.

7.2 Time limits

The claim must be presented within one year of its occurrence of the damage or the identification of the launching State. If the claimant does not know when the damage occurred or has been unable to identify the launching State, then it can present its claim within one year of being reasonably able to do so with due diligence. The time limits apply even if the State does not know the full extent of the damage. But it may revise its claim when this is known.

8. Settlement of claims

The Convention outlines a process to enable a claimant to prefer a claim for final adjudication to an independent body within a prescribed time period with or without the co-operation of the launching State. If a claim cannot be settled through diplomatic negotiations within one year of notification of its presentation, then the parties involved will set up a Claims Commission at the request of either party to decide the compensation payable. Three members are to be appointed: one by the claimant State, the other by the launching State, and, the third – the chairman- by both parties. If one of the parties fails to appoint its member, then the Chairman sits alone. If several parties share the same interest, they are treated as one party.

The whole process, from start to final adjudication, should be concluded within two and a half years. The Chairman may extend the time if necessary. An additional six months are provided for in respect of a claim against an international organisation.

If the parties agree then the decision is final and binding.⁵² Otherwise the Commission makes a 'final and recommendatory award.' This reflects a compromise between the negotiating parties. What is the legal status of a recommendatory award? Such awards are not exceptional. The International Court of Justice (ICJ) for example, gives Advisory Opinions. So do International Commissions of Inquiry. Bilateral agreements also provide for such awards. All these pronouncements are invariably acted upon, although there is no legal compulsion to do so. Indeed a view has been expressed that

⁵¹ *Pacta tertiis nec prosunt nec nocent*: agreements do not create any rights, nor can they impose any legal obligations on third Parties (without their consent).

⁵² How are States to make such declarations of the nature of the award? No guidance is given. Useful reference may be made to declarations under the Optional Clause of the Statute of the International Court of Justice, Article 36(2).

advisory reports are, according to international practice, arbitral awards in all but name.⁵³

CONCLUSION

The Space Objects Liability Convention typifies an example of an international regime for liability and compensation for a particular cause of damage. It is not exceptional and may thus be adapted for the promulgation of other similar regimes. However there are some interesting 'new' features that are particularly useful for incorporation in a victim-orientated convention. These bear reiteration.

First, the relaxation of the rule on the nationality of claims allows States to present claims for damage suffered by nationals of another state or stateless persons.

Secondly, international organisations can participate in the Convention without actually becoming Contracting Parties.

Finally, the provisions on the applicable law and the settlement claims procedure were preceded by intense discussion on the meaning and effect of different formulations. This makes it crystal clear what was intended to be included or excluded by these critical provisions.

⁵³ See discussion in Cheng, *The Law of International Air Transport*, p.458.

II. OIL POLLUTION LIABILITY AND COMPENSATION: CONVENTION ON CIVIL LIABILITY FOR OIL POLLUTION DAMAGE 1969 ('CLC')

BACKGROUND

It is important to make a distinction at the outset between liability of a State under municipal (national) law and that under international law. A State may be liable under municipal law if it is not immune from liability in that State as a result of its sovereign status. How may this liability arise? It may arise either because the municipal law incorporates the provisions of an international Convention, or, because the State enacts a law to make the State liable.

Apart from such a liability under municipal law, a State may be liable to another State for the breach of an obligation owed to that other State under international law. Additionally, international law may impose an obligation on a State to make provision in its municipal law for the liability of those responsible (or others) for oil pollution damage. These obligations under international law are discussed in this part of the paper.

Before the CLC for oil pollution

A State can claim reparation for oil pollution damage from another State if it shows that the other State has breached its international obligations. Part A of this paper outlined what these rules are and how they can be breached. The question in each case then is whether the State has violated its international obligation in respect of the particular oil spill incident.

Generally, a State is not liable in international law for an act or omission of a **private** ship flying the flag of a State for the ordinary use of the seas. This means the State will not be liable for any problem arising from the ordinary use of the seas, such as the pollution from the occasional accidental oil spill or from the operational (intentional) discharge of oil. The international obligation of the State would be limited to making provision in their national law for standards of pollution prevention and punishing offenders; and as regards their nationals or those present within their jurisdiction, to make provision for civil liability for oil pollution damage. It is unlikely that the breach of such an obligation could form the basis of an international claim. For that, some added obligation will be needed. Customary international law does not provide any such additional obligation. Specific conventions might and if a State breaches the provisions of any such convention, then an international law claim could be made against it. The claim arises solely because the State had failed to fulfil a specific obligation it had undertaken.

For example, an international convention⁵⁴ may require States to issue certificates to certain ships only if they have complied with specified requirements after the ships have been surveyed and inspected. If in contravention of this requirement, a ship is issued with a certificate and allowed to proceed to sea, and as a result the ship causes oil pollution damage, then that State has breached its international obligation and must make reparation for any damage caused to other States.

⁵⁴ See MARPOL [Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships 1973] imposes such an obligation on parties.

What is the position with regard to **public** ships? The organs of the State or its representatives are responsible for the condition of the ships. As was stated in Part A of this paper, the State is then responsible in international law for the ships. But if oil pollution occurs, causing damage to another State, then is the State liable? The fundamental duty of States to make regulations to prevent such damage from occurring is clear. But whether it extends to responsibility for the damage itself is, according to some writers, unclear.⁵⁵ The solution is to provide for this in international agreements. The usual tendency in such agreements has been to exempt States from such liability.

The Law of the Sea Convention, in particular Article 31, is a distinct departure ushering in a new practice. It attaches responsibility for damage caused to coastal States by public ships (operated for non-commercial purposes) resulting from non-compliance with the laws of the coastal state concerning passage through the territorial sea or with the provisions of the Convention or other rules of international law.

The matters discussed pertain to obligations before a spill occurs. After a spill, is there an international obligation on the flag State or the coastal State to, say, minimise the spill or clean it up so that it does not threaten other coastal States or the marine environment generally? At best the obligation may, once the Flag State knows of the spill, to notify the coastal States of the imminent danger of being damaged. This is derived in part from Article 2 of the High Seas Convention and Article 87(2) of the Law of the Seas Convention, which require 'due regard' to the interests of other States by those travelling on the high seas. Whether there is a further obligation on coastal States to minimise or contain the spill is also unclear. Where multilateral conventions/treaties impose a clear and precise obligation to notify, its breach could found an international claim. Even then there may be difficult problems of showing breach: for example, was there a delay in notification?

States have largely left questions of liability and compensation to commercial parties involved and by recourse to municipal law. What States have done in this regard is to agree on various mutual obligations to enact in municipal law to make sure that compensation is available to both States and private claimants for oil pollution damage. We turn now to these obligations in international law to make provision for liability and compensation.

Creating international obligations

The March 1967 *Torrey Canyon* disaster⁵⁶ is credited with the swift and comprehensive response by the international community to deal with two major subjects: the rights of a coastal State to intervene in case of an oil pollution threat, and, civil liability for oil pollution damage. The incident raised awareness of the massive damage that could result from the carriage of oil by sea. It made legislators aware of the serious shortcoming of national laws, and the complete lack of international legislation, to deal with such disasters. For example, a person who suffered damage arising from the discharge or escape of oil from a ship had difficulty in obtaining compensation from the owner of the vessel because of jurisdictional problems, the difficulty in securing redress

⁵⁵ Abecassis & Jarashow, *Oil Pollution from Ships*, 1985, 2nd edition, paras 2-05 – 2-13; 9-11.

⁵⁶ The *Torrey Canyon*, an oil tanker, ran aground off the English coast causing large scale damage by crude oil spills, 100 kms and 80 kms of the English and the French coastline were polluted. Vast animal life also disappeared. The costs were three quarters of a million pounds and 41 million francs. Other notable incidents: 1978 *Amoco Cadiz*; 1989 *Exxon Valdez*.

in Admiralty law and because shipowners were unable to pay the full amount of any damages awarded.

Immediately after this incident, the Inter-governmental Maritime Consultative Organisation (IMCO) set up its own legal committee to deal with oil pollution. The instrument that finally emerged was the International Convention on Civil Liability for Oil Pollution Damage 1969. It entered into force on June 19, 1975.

Two further Protocols of 1976⁵⁷ and 1984 were adopted. They amended the 1969 Convention.

The Convention on Civil Liability seeks to ensure that shipowners could meet any claims against them by requiring compulsory insurance by setting uniform international rules and procedures. There are features of this Convention, which were radical for its time. The shipowner is made strictly liable for oil pollution damage subject to very limited exceptions. He may limit his liability but the permissible limitation was much higher than what could be claimed at the time. To limit the liability, the shipowner must constitute a fund representing the limit with the court or other competent authority of any one of the contracting States in which action is to be brought: [Article 5(3)]. The Convention seeks to attract all the litigation in a particular case to the jurisdiction in which this limitation fund is established and to ensure that the litigation is only instituted in a State where pollution damage has been suffered. The claimant may also sue the insurer directly.

There were concerns after the CLC came into force that victims were being left uncompensated and that shipowners were bearing too heavy a financial burden. As a result the International Oil Pollution Compensation Convention 1971 (The Fund) came into force in 1978 to provide an additional source for compensation. It is paid for by major oil producing countries under a prescribed formula discussed later in this section of the paper. The terms for the payment of the compensation were also extended slightly.

1. Scope

The Civil Liability Convention applies exclusively to oil pollution damage caused on the territory – including the territorial sea – of a Contracting State and to measures taken to prevent or minimise such damage. Thus it is the place of the damage, not the incident, that is crucial for determining whether the Convention will apply. If it is outside this territory, then the Convention is inapplicable. For this reason the nationality of the ship is also not important. This provision was no doubt influenced by the *Torrey Canyon* incident where the ship was stranded on the high seas but polluted the territorial sea and shoreline of several States. The costs of the preventive measures taken outside the territorial sea also come within the scope of the Protocol.⁵⁸

1.1 Pollution damage

The Convention applies exclusively to pollution damage. This is defined in Article 1(6) to mean ‘*loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur.*’ It includes ‘*the costs of preventive measures and further loss or*

⁵⁷ Entered into force on April 8 1981.

⁵⁸ See the preamble to the 1971 Convention.

damage caused by preventive measures.' The ship must be actually carrying oil in bulk as cargo at the time of the incident. No minimum amount of oil carried is stipulated.

The term 'loss or damage' is not defined. Damage would include personal injury caused by unignited oil if caused by contamination. But obviously the phrase contemplates more than just physical damage caused by contamination. The Convention offers no guidance. It does not deal with the issue of causation and remoteness; nor the problem of *locus standi* (standing to sue) or quantification. All this is left to the interpretation of national laws. This opens the door to claims of a speculative nature in the 'environmental damage' class or in areas using abstract quantification models.⁵⁹ An amendment was made by Article 2(3) of the 1984 Protocol to the definition of pollution damage to restrict the general damages that could be claimed for the impairment of the environment to costs of reasonable measures actually, or to be, undertaken.

1.2 Oil

The Convention only covers damage caused by any persistent oil. 'Oil' is defined to include only such oil – such as crude oil, fuel oil, heavy diesel oil, lubricating oil and whale oil – whether carried on board as cargo or in the ship's bunkers. Hazardous substances were excluded to make the Convention simple and workable. Oils are homogenous cargo usually carried in specialised vessels. Hazardous substances, in contrast, are heterogeneous in nature and therefore require a different liability mechanism for each substance.

1.3 Outside the ship

The loss or damage must occur outside the ship.

1.4 Contamination

Only damage by contamination is covered. Any loss by explosion or fire following the release of oil is excluded.

1.5 Escape or discharge

The contamination must result from an escape or discharge. Although the Convention does not make it clear whether accidental or unintended release is covered, during negotiations, the term 'deliberate release' was removed from the negotiating text.

1.6 Preventive measures

These are defined by Article 1(7) as any reasonable measures taken by any person after an incident has occurred to prevent or minimise pollution damage.

1.7 The damage caused by the preventive measures

Dispersants to deal with oil spills can be more toxic than the actual pollution damage. Hence the damage they cause may also be recoverable. Such damage caused is not subject to the same constraints as 'pollution damage'. As such the damage caused by these dispersants is covered irrespective of whether it was brought about by contamination, fire, explosion, or other causes.

⁵⁹ Abecassis and Jarashow, loc. cit. pp. 209.

2. Parties

2.1 Who can bring a claim?

Anyone affected may do so. By Article 1(2) the person with a right to compensation as 'any individual or partnership or any public or private body, whether corporate or not, including a State or any of its constituent subdivisions.'

2.2 Who is liable?

Only the shipowner is liable. This is defined as the person registered as owner or, if there is no registration, the person who owns the vessel.

3. Liability

3.1 Joint and several liability

When oil has been discharged, or escapes from two or more ships, resulting in pollution damage, the owners of all the ships concerned are liable jointly and severally for all such damage which is not reasonably separable: Article 4. This contemplates a situation where 2 or more tankers carrying oil in bulk as cargo collide and oil from both tankers spills into one slick. This means that all of the damages are recoverable from any one of the owners. This is particularly useful if any one of them becomes insolvent. Even where Article 4 applies, several matters arising in connection with the incident are not dealt with by the Convention and are therefore left to national law to resolve. These matters include the principles on which separation of damage will be made, the question of contribution between two or more defendants, and the effect of one or both the ships limiting liability. The scope of the Article has been considerably widened by the 1984 Protocol to cover incidents which create pure threats: Article 2(4) of the '84 Protocol replacing the definition of 'incident' in Article 1(8) of the '69 CLC.

3.2 Channelling of liability

The owner cannot be sued for liability except on the basis of the Convention. His or her employees or agents cannot be sued at all. So pollution victims of a Contracting State can only sue the shipowner under the Convention.

3.3 Shipowners' right of recourse

The shipowner who pays for the liability of other shipowners, who are also to blame for the damage, can seek to be indemnified by the other shipowner or owners. It does not matter that the other owner is not a Contracting Party. The action is brought on the principles of ordinary maritime law.

3.4 The standard of liability

Should liability be strict or depend on the fault of the Party? This generated the most intense debate in the negotiations for the CLC. Two alternative formulations were finally tabled at the 1969 Brussels Conference. The first made liability on the basis of fault but reversed the burden of proof. Owners would not be liable unless they could prove that neither they nor their employees or agents were to blame for the damage; nor could anybody else be blamed in the operation, navigation or management of the ship. The second alternative made liability strict irrespective of fault. The arguments in favour of strict liability were that victims would always be compensated; it would spare

the victims lengthy litigation and higher costs; and it would make those making profit from the operation responsible.

The Convention accepted strict liability when those against, principally the UK, withdrew their objections, accepting in return a maximum insurable limit and the establishment of another Convention to examine the constitution of a fund to complement the shipowners' strict liability.

Article 3(1) states the strict liability rule thus:

‘...the owner of a ship at the time of the incident ... shall be liable for any pollution damage caused by oil which has escaped or been discharged from the ship as a result of the incident.’

The evidence of a pollution incident, without more, suffices to render the shipowner liable for pollution damage. The victims need only prove that the damage caused to them was a result of the incident.

3.5 Circumstances exonerating liability

There are four grounds on which the owner is excused from liability. These are if he or she proves that the pollution damage:

- a. Resulted from an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character; or
- b. Was wholly caused by an act or omission done with intent to cause damage by a third Party; or
- c. Was wholly caused by the negligence or other wrongful act of any government or other authority responsible for the maintenance of lights or other navigational aids in the exercise of that function [Art 3(2)];
- d. Resulted wholly or partially either from the intentional or negligent act or omission by the person who suffered the damage. Then the owner may be exonerated wholly or partially from liability to that person [Art 3(3)].

Paragraphs (b) and (c) impose liability if the act/omission was *exclusively* intentional or negligent respectively. That means that there must be no other cause for the damage.

There appears to be no such requirement for paragraph (a). There are four types of causation: parallel, complementary, cumulative or exclusive. Which one is intended must be specified, as has clearly been done for paragraphs (b) and (c) by the use of the word ‘wholly’. The omission of this qualifier leaves the matter vague. Apparently the vagueness was deliberate.⁶⁰

As a result, the CLC is unclear as to exoneration from liability in the following circumstances:

- a. If the elements set out in the paragraph were a parallel cause for the pollution: the exonerated cause – say an act of God – and the non-exonerated cause have independently resulted in the damage; or
- b. If the exonerated cause could have contributed to the damage; or

⁶⁰ It was confirmed during the 1984 conference that the negotiators had intentionally omitted the word ‘wholly’ from the text so as to leave it vague: Wu Chao, *Pollution from the Carriage of Oil by Sea: Liability and Compensation*, [Kluwer: 1996], p.61, text to fn 140.

- c. If the effect of the exonerated cause could have aggravated the damage.

It appears that the presence of any of the elements set out in the paragraph would exonerate the shipowner. This extends the grounds on which liability can be avoided.

3.6 Limiting the amount payable for liability

Limiting the amount payable for the liability has been a fact of maritime law and practice. Indeed conventions on such limitation preceded the CLC. But in this case, the limitation provisions were inserted because liability was made strict.

- *What is the limit?*

The limit finally agreed upon for any one incident was 2,000 francs for each ton of the ship's tonnage up to a maximum amount payable of 210,000 million francs, corresponding to the maximum liability of a vessel of 105,000 tons?

The shipowner's liability cannot be limited if he or she is to blame for the incident causing the damage.

- *Other conditions for limitation to apply: establishing a compensation fund*

To take advantage of the limitation of liability, shipowners or their insurers must set up a fund through a court in a Contracting State. In practice, this can be done even before an action is preferred. The court in which the fund has been set up will be the only court competent to determine all matters regarding the apportionment and distribution of the fund. If several courts in the Contracting State are involved, the owner or insurer only has to set up one fund through one of the courts.

Once the fund is constituted, the shipowner's other assets are insulated; and any ship arrested must be released. This protection is only available for States that are Parties to the Convention.

- *Distribution of the fund*

The fund will be divided proportionately between the claimants. Any person who has paid compensation will acquire the rights which the person compensated enjoyed to claim from the fund. For example, a government may have initially paid the clean-up costs of the contractors. They can then claim these costs from the limitation fund. This is a right of subrogation. However, the national law must permit the making of such a claim by subrogation.

If the shipowner voluntarily carries out acts to prevent or mitigate the damage, he or she may also claim from the fund reasonable costs and compensation. This is to encourage effort to save the environment. Unfortunately, the amount payable to the victims is reduced by the amount paid to the shipowner.

3.7 Compulsory insurance

The shipowners are obliged to take out insurance to cover their liability for the damage. This provision was revolutionary at the time and fiercely negotiated. Arguments against centred around the following:

- a. The high cost of the insurance on a world scale and covering large risks;
- b. The lack of capacity in the insurance market and the difficulty in ascertaining conditions and premiums;
- c. The difficulty of governments in verifying the validity of the insurance cover;
- d. Allegation of discrimination against those involved in this trade as they were singled out for this compulsory insurance.

In the end, the interest of the victims prevailed and compulsory insurance was voted in narrowly. Owners of ships carrying more than 2,000 tons of oil in bulk as cargo were required to take out insurance or other financial security to cover their liability for pollution damage [Art 7]. The financial security could take the form of a bank guarantee or a certificate delivered by an international compensation fund such as that eventually established as a supplement to the CLC, discussed in the next pages. The sums were fixed by the Convention.

Certification

The CLC requires the States where a vessel is registered to issue a certificate that the insurance or financial security obtained by the shipowner is valid and satisfies the requirements of the Convention [Art 7]. Art 7(2) prescribes the information in the certificate. The certificate must be kept on board and a copy deposited with the authority that keeps a record of the vessel. A State may consult with the State issuing the certificate if it queries the financial capability of the insurer. Any fund obtained is for exclusive disbursement for claims under the Convention.

- *Safeguards*

The compulsory insurance requirement is ensured, as a contracting Party cannot allow a ship under its flag to trade unless a certificate is issued [Art 7(10)]. Also every Contracting State must ensure that any ship entering its port, wherever registered, takes out the requisite insurance. Secondly, ships of non-contracting States entering the port of a contracting State must have the same level of insurance. This ensures that the ships of non-contracting States do not have an unfair competitive advantage.

- *Exemption from certificate for State-owned ships*

All that a State needs to do for ships it owns is to issue a certificate stating that the ship is State property and that its liability is covered in accordance with the Convention.

3.8 Direct action against the insurer permissible

Article 7(8) permits direct claims to be brought against the insurer or the financial security provider. These defendants can also avail themselves of the liability limits as well as any defences available to the owner. They can also raise the defence that the owner is guilty of wilful misconduct, but not any defence that would have been available only as between them and their insured, such as the policy being invalid for failure to pay the premium. They can also ask the delinquent owner to be joined as a defendant.

So taking direct action against the insurer is subject to the following conditions: The insurer can take advantage of the limits of liability under the Convention even if fault is proved against the shipowner insured. Then the insurer pays up to the limit by constituting a fund according to the limit; the victim obtains the rest of the damages from the shipowner at fault. In addition to the shipowner's defences, the insurer can raise the question of the intentional fault of the shipowner. Then the insurer is relieved of liability that must now be borne by the insured. The insurer cannot raise any defence that is relevant between insurer-insured, such as failure to pay the premiums and the unseaworthiness of the vessel.

The right of direct action is not dependent on the weight of the vessel.

3.9 Time limit and place for bringing the action

The action must be brought within six years of the damage occurring. Otherwise the claim is extinguished. In any event no action can be brought ten years after the date of the incident. Where the incident consists of several occurrences, then time begins to run from the date of the first occurrence.

There were two options for designating where an action may be instituted: the place where the incident took place; or, the place where the defendant was habitually resident, or where his or her vessel was registered, or where the defendant's vessel had been arrested. The latter option was rejected on the ground that there were difficulties in application.

The place where the damage occurred was finally agreed upon. If damage occurred in several States, then the courts of all these States were competent to decide on liability. So long as the action was brought in the courts of Contracting States, it did not matter that the ship was registered in the state of a non-contracting Party or the owner was a citizen of a non-contracting Party.

However only the courts of States where a compensation fund was set up were competent to determine its distribution. This could give rise to problems where the damage occurred in more than one State and the fund was established in a State other than that where the action was brought.

THE INTERNATIONAL CONVENTION ON THE ESTABLISHMENT OF AN INTERNATIONAL COMPENSATION FUND FOR OIL POLLUTION ('THE FUND CONVENTION')

During the negotiations for the establishment of the Civil Liability Convention (CLC), there was an intense debate and near deadlock on two issues, namely, whether liability should be strict or based on fault, and, who was to bear that liability – the ship owner, the cargo owner or both. The majority decided on strict liability and liability on the cargo interests in the form of a fund. Possibly it was upon this promise of a fund that the Convention was adopted.

The Fund Convention negotiations were directed to two main concerns, first, that the limits on liability left victims uncompensated; and, secondly, that shipowners were bearing too heavy a burden and that the burden should be spread to oil importers as well. A regime supplementary to the CLC was advocated to relieve the shipowners of the additional financial burdens on the shipowner. This led to the 1971 Conference that adopted the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage – the Fund Convention. It came into force for States that were then parties to the CLC in October 1978. The concerns were addressed by this Convention.

1. Scope

The Fund Convention is supplementary to the CLC. So Article 2 states that the purpose of the Fund Convention is to provide compensation for pollution damage to the extent that the protection afforded by the CLC is inadequate, in other words, where the CLC exempts the ship owners from liability, the owner and the insurers cannot pay, or claims resulting from the incident exceed the liability limits under the Convention. Article 5(3) gives effect to the other main purpose – to give relief to shipowners from the burden of the CLC.

Compensation is paid from contributions received from the oil industry. The Fund only deals with claims that are admissible under the CLC. The Fund is directed by one of the three organs running the Fund - the Fund Assembly, composed of all the Contracting States. Contributions to the Fund derive from an initial levy and an annual payment. Contributions are paid usually by a major oil company which has received, that is, imported, more than a minimum amount – 150,000 tons - of (crude) oil in a relevant year. The amounts are fixed by a formula – based on per ton of oil received.⁶¹ In addition to the initial levy, annual contributions were also payable. The amount varies from year to year and is based on the anticipated payments for compensation and indemnification by the Fund and an amount to cover its administrative expenses for the coming year.

Each Contracting Party must ensure that those liable to contribute who operate in their jurisdiction of the State meet their obligations. The State has the right to impose sanctions (mainly imposing higher interest rates on arrears of contributions) to ensure compliance.

A State can also voluntarily undertake to meet the contributions that importers in its territory would otherwise have to pay. This is done by a written declaration made at the

⁶¹ The initial levy is only payable once. It was abolished prospectively by the 1984 Protocol, see text, *infra*.

time of the accession to the Convention or at any time after. No immunity can be claimed by a State if any action is brought against it by virtue of this declaration.

2. Compensation

The Fund is liable to pay compensation for pollution damage caused on the territory of a Contracting Party, after it has become a Party. Compensation is also payable for preventive measures taken to prevent or minimise pollution damage. Any reasonable expenses incurred or sacrifices reasonably made by the owner voluntarily to prevent or minimise pollution damage will be treated as pollution damage.

Compensation is payable by the Fund to someone who has suffered pollution damage if he has been unable to obtain full and adequate compensation under the CLC for the reasons specified in Article 4(1). These are:

- a. Where no liability arises under the CLC. Practically this is when the owner can invoke one of the exceptions to the CLC;
- b. Where the owner liable to meet the claim is financially incapable of satisfying the claim. The compulsory insurance under the CLC must, further, not cover or be insufficient to satisfy the claim. All this is said to happen when the claimant is unable to obtain the full amount he or she is due after taking all reasonable steps to pursue the legal remedies available;
- c. Where the amount of damages exceeds the limitation fund established by an owner under Article 5(1) of the CLC or under any other relevant Convention.

The Fund is not liable to pay compensation if the damage occurred as a result of an act of war, hostilities, civil war or insurrection or was caused by oil from a warship or other vessel operated by a State and at the time of the incident, used only on government non-service. [Art 4(2)(a)]

In addition, to succeed in a claim, the claimant must prove the damage resulted from an incident involving one or more ships. This provision is intended to deal with the problem of unidentified spills.

The Fund is exonerated from making any payment if pollution damage results from the wilful misconduct by the owner or if the ship does not comply with the requirements of any one of the international conventions cited [Article 5(3)].

The Fund will avoid liability if it can prove that the damage resulted wholly or partially from an incident caused intentionally or by the contributory negligence of the claimant. Costs of preventive measures are not, however, subject to this exclusion.

There is also a limit set for the compensation that can be claimed. If the aggregate of claims exceeds the limit then the amount is shared proportionately.

The Fund, where it is liable to pay for pollution damage, may provide credit to enable preventive measures to be taken.

3. Indemnification

The Fund will only make out the payments which shipowners and guarantors are obliged to make if:

- a. The pollution damage for which they are liable is sustained on the territory of a State which is a Party to the 1969 Convention;
- b. The ship that is liable is registered in a Contracting State of this Convention or flying the flag of this State.

The Fund performs two distinct functions: one, as a guarantor of the shipowner. Thus when the shipowner is incapable of paying the damage, for which he or she is responsible, the Fund makes the payment. When the shipowner is unable to pay the entire amount, the Fund pays for the shortfall. This principle of indemnifying owners for part of their liability under the CLC was established, as was noted earlier, in recognition of the fact that the 1969 Convention imposed an additional financial burden on shipowners for the carriage of oil in bulk as cargo.⁶²

4. Actions against the Fund

As in the CLC, any person may apply to the Fund for compensation for pollution damage sustained under the Convention. In addition shipowners or their insurers can bring claims for indemnification.

As in the CLC, the same jurisdictional criteria for place of action applies - namely, the courts of the Contracting State where the pollution damage occurred.

Likewise, time limits on an action are the same as under the CLC. However the rights of the shipowner shall not be extinguished for a period of six months from the date on which the owner acquired knowledge of proceedings against him or her under the CLC.

The Fund can claim from a shipowner any amounts paid in excess of the shipowner's limit of liability if it can be proved that the owner caused the pollution damage.

⁶² From 1969-1972 insurance sources claimed that tankers premium for oil pollution risk increased by 700%. This led to fear that unless some relief was given, ships might avoid liability altogether by seeking other flags. Quoted in Wu Chao, *supra*, at p.89.

THE 1992 PROTOCOL/CONVENTION TO REVISE THE LIABILITY AND FUND CONVENTIONS

Over time, there was felt a need to revise the two Conventions. Two major incidents demonstrated the inadequacy of the amounts of compensation available to the claimants. They involved the ship *Amoco Cadiz* in 1978 and the *Tanio* in 1980. Additionally inflation made the limitation amounts inadequate; clean-up measures became more expensive with technological progress; and, finally, tanker sizes had increased.

The revision exercise started in 1979 and was completed in 1984 when two protocols were signed to revise the 1969 CLC and the 1971 Fund Convention. However these protocols never took effect because the US, whose ratification was necessary for the entry into force, could not ratify them.⁶³

As a result, in 1992 new protocols were agreed which substantially re-enact those of 1984 with a coming into force mechanism that does not make the US acceptance vital. One is now a Convention and is known as the International Convention on Civil Liability for Oil Pollution Damage 1992. The other is a protocol to amend the 1971 Fund Convention. In 1995 these Protocols entered into force. The transition from the old instruments to the new was concluded in May 1998.⁶⁴

1. The 1992 Convention

The main changes the 1992 Convention introduced are as follows:

- a. The scope is extended to cover other carriers not previously covered by the CLC. In particular tankers not carrying oil in bulk as cargo at the time of the incident were not covered. The 1992 Convention covers tankers irrespective of whether they are carrying oil in bulk as cargo. It also covers combination carriers (not tankers) when they carry oil in bulk as cargo and during the whole return voyage following such carriage of oil, unless there are no residues of oil.
- b. The term 'pollution damage' is given a wider meaning. The Convention will apply not only where damage is physically caused by an actual oil escape, but also where (i) damage is caused by measures taken to attempt to prevent or minimise the damage caused by an actual oil escape, or, (ii) expenses incurred for cost of these measures reasonably undertaken.
- c. Liability shall lie for the cost of any measures reasonably undertaken to avert or minimise a *grave or imminent threat* of any damage which *might* be caused *if* there was an escape or discharge of oil, and, any damage caused by the implementation of these measures.
- d. Liability under the Convention for damage to the environment (other than loss of profit from such impairment of the environment) is however limited to the costs of reasonable measures⁶⁵ of reinstatement actually undertaken or that will be undertaken once the funds are available, as well as the costs of preventive measures

⁶³ The 1984 Protocol had to be ratified by six States with not less than 1 million tonnes gross tanker tonnage. The US was one such State. The 1992 Protocol did not impose this onerous requirement for its entry into force.

⁶⁴ Magnus Goransson, '*Liability for Damage to the Marine Environment*,' in Boyle & Freestone (ed) *International Law and Sustainable Development* [Oxford: London] 1999, at p.351.

⁶⁵ What is reasonable, and how far the cost of a measure is to be considered in deciding whether it was reasonable, is nowhere defined in the Convention and so is a matter for national law.

and further loss and damage caused by these measures. This curtails the claims for general damages. This is an update of the way in which the Fund has interpreted the term.

- e. 'Incident' is redefined to mean, as well, an occurrence, which creates a grave and imminent threat of causing pollution damage. This allows claims to be made for the expenses involved in taking measures in anticipation of pollution damage.
- f. Claims are allowed also for damage caused or preventive measures taken in an Exclusive Economic Zone or, if a State has not established such a zone, then in an area beyond and adjacent to its territorial sea extending in a specified manner.
- g. The strict liability provisions are confirmed.
- h. The limits of liability are raised.
- i. Provisions for which the owner could be denied compensation (because he or she was at fault or was a Party to that fault) are now confined to acts which are intended to cause damage, or recklessness and with knowledge that such damage could result;
- j. An owner can establish a fund in any competent court even if no action has been brought against him or her; and
- k. Non-contracting States in an updated model form can issue insurance certificates.

2. 1992 Protocol To Amend The Fund Convention

The main changes in this Protocol extend the definitional amendments as set out earlier to the CLC. In addition:

- a. Where authorities have taken preventive measures, then the Fund cannot be exonerated from making payments because the damage arose from the claimant's own activities;
- b. The limits of the Fund's liability are raised;
- c. The Assembly of the Fund can decide to make payment even if the owner of the ship has not established his or her own fund (in exceptional cases); and
- d. All provisions for the rights of the Fund to be reimbursed are deleted.

**THE BASEL PROTOCOL ON LIABILITY AND COMPENSATION
RESULTING FROM THE TRANSBOUNDARY MOVEMENT OF
HAZARDOUS WASTES AND THEIR DISPOSAL
(‘THE BASEL LIABILITY PROTOCOL’)**

BACKGROUND

Massive amounts of hazardous wastes are produced annually worldwide.⁶⁶ The majority is generated in developed industrialised countries, although small-scale industries in emerging economies are also generating such wastes in increasing amounts.⁶⁷ UNEP estimates that European countries export some 700,000 tons of hazardous wastes to each other and some 120,000 tons to developing countries; the US and Canada export some 200,000 tons. A significant portion of the trade in hazardous wastes is from countries with highly developed regulatory regimes to countries with no such regimes or poorly developed ones.⁶⁸ The impetus for this is the rising cost of disposing hazardous wastes in highly regulated countries of the North. The large profits to be made from their disposal also spawns illegal traffic. For example, the treatment of polychlorinated benzenes (PCBs, a compound linked to cancer and other serious diseases) costs as much as \$3,000 per ton in the US; they cost \$2.50 per ton to dispose abroad! Certain notorious cases of the movement of such wastes in the 1980s galvanised global concern.⁶⁹

There was also a growing awareness of the effects of the release of these wastes on the environment of the recipient country and the health of its populace. The release of hazardous wastes in agricultural countries came to haunt the exporters when the tainted food products were returned to them as imports – what has been referred to as ‘the circle of poison’.

Countries developed their own or regional responses: either outright bans or subjecting the trade to restrictions, particularly prior notification and consent. The concern spawned a plethora of regulations.⁷⁰

But there was a lack of uniformity in these regulations. Developing countries also lacked the resources to enforce bans. UNEP finally convened a conference to negotiate

⁶⁶ The OECD estimated in 1991 that 338 million tons were produced annually worldwide: OECD, *The State of the Environment* (1991).

⁶⁷ F.A. Uriarte, *Hazardous Waste Management in ASEAN*, in *Hazardous Waste Management* (S.P. Maltezou, et al eds, 1989).

⁶⁸ UNEP, *Environmental Data Report 345* (1991), pp. 335-336 documenting the 20% of the global trade that goes from developed to developing countries.

⁶⁹ In 1986 the *Khian Sea* set sail from Philadelphia for the Bahamas with 15,000 tons of municipal incinerator ash. It was turned away. It sailed around for 2 years before finally dumping the wastes, unauthorised, in Haiti. In late 1987 – May 1988, 5 ships transported 3,800 tons of wastes from various European countries and the USA to Nigeria for storing in a dirt lot. The Nigerian national was to receive \$100 a month in a deal brokered by an Italian trader. This was finally exposed by an investigation conducted by the Nigerian government following serious illnesses amongst residents. The wastes were returned to Italy. The clean up wreaked health and environmental havoc.

⁷⁰ Examples: 1984 EC Directive 84/631 on control of hazardous waste trade between member states, expanded in 1986, to include non-member states; the International Maritime Organisation’s technical annex to the MARPOL Convention addressing pollution from the carriage of hazardous wastes by sea set out detailed requirements on packing, marking, labelling, documentation, stowage, quantity limitations, notification and other matters. The revised Annex III entered into force in 1992. See also US laws regulating US exporters: 42 USC sections 6938 (1988); and, bilateral agreements between the US and Canada and the US and Mexico (both in 1986).

the drafting of a convention. The Basel Convention was thus promulgated. It was adopted in 1989 and entered into force in May 1992.

1. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

The aim of the Basel Convention is to establish and co-ordinate a comprehensive procedure for the safe transportation of hazardous and other wastes across boundaries and to seek to restrict and reduce the level of such transfers. A stringent regime is imposed. Any movement of a relevant waste not properly in accordance with the requirements of the convention is illegal traffic and the wastes liable to be disposed of at the expense of the culprit.

Transboundary movement of hazardous and other wastes may only be allowed in the limited circumstances set out in Article IV (9) of the Convention. This is where the State of export lacks the technical and practical domestic facility to dispose of that waste in an appropriate manner; or where the wastes are required as raw material for recycling or recovery industries in the importing State; or the wastes fall into the residual category, as yet undefined, which permits the movement as long as it is in accordance with other criteria – consistent with the requirements of the convention – to be decided by the parties.

The more significant features of the Basel Convention may be summarised as follows:

- a. It establishes a notice-and-consent regime for transboundary movements of hazardous wastes. Shipments must be pursuant to a written contract specifying the environmentally sound management of the wastes and accompanied by specific documentation.
- b. It allows Parties to declare bans on imports of wastes to them. All Parties must honour the bans.
- c. Parties are obliged to take appropriate measures to reduce the generation of hazardous wastes, and, to reduce the transboundary movement of such wastes to the minimum consistent with their environmentally sound and efficient management.
- d. Both importing and exporting countries must prevent planned transboundary movement of the wastes if they have reason to believe that the wastes will not be managed in an environmentally sound manner.
- e. The Parties agree to develop technical guidelines for environmentally sound management of the wastes by importing countries.
- f. Exporting countries have a duty to re-import the wastes if their disposal cannot be completed in accordance with the contract.
- g. Parties cannot trade with non-Parties unless there is an agreement between them that satisfies the standards set by the Convention.
- h. A secretariat in Geneva is to organise periodic meeting of the Parties and perform important functions such as compiling and transmitting information including news of illicit trafficking, and cooperating with States to provide experts and equipment in emergencies.

During the negotiations developing countries pushed vigorously for a total global ban on trade in hazardous wastes. The OECD countries were equally vigorous in opposing this, arguing that industrialised countries needed to export wastes because they had a limited capacity to manage and dispose them; further, they argued that countries reap economies of scale as they can benefit from the construction of disposal facilities or the

proximity of such facilities in another country. It was also argued that countries may benefit from recycling wastes.

Despite the Basel Convention's intention to reduce the overall number of transboundary shipments of hazardous wastes, no system was created to establish liability should an accident occur. However, Article 12 of the Basel Convention obliged Parties to cooperate to adopt a protocol on liability and compensation.

Work on the Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal (Liability Protocol or Protocol) unearthed significant problems and negotiations were long and arduous. The discussions initially began in 1993, when the first draft protocol was issued by the Ad Hoc Working Group of Legal and Technical Experts. At the Second Conference of the Parties in March 1994, the Parties voted to advance the Protocol with the expectation that it would be finalized by the Third Conference in September 1995. However, this did not occur. The text was not finally agreed until December 1999. On the tenth anniversary of the Basel Convention, the Conference of the Parties adopted the Protocol.⁷¹

2. The Basel Liability Protocol

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.⁷²

Without a protocol, a person seeking redress for damage arising out of the transboundary movement of wastes would face immense problems. The person would have to pursue a claim for compensation in the court where he or she resides or suffers the injury. He or she will have to rely on existing remedies under the national law or, if there is no national law dealing specifically with claims in such matters, then rely on existing civil remedies available for pollution damage. A potential plaintiff could well face serious obstacles, especially if the remedy is to be pursued in a foreign court, against say, an exporter or generator of wastes. Lack of knowledge of the foreign system and prohibitive costs would be especially forbidding, especially for the injured from Third World countries.

Further, it may not be possible to assert jurisdiction over a foreign defendant. Procedural rules for giving adequate notice of the process and for service out of the jurisdiction would have to be complied with. The court may decline jurisdiction on the ground that it is not the most convenient forum (*forum non conveniens*). The again what law should apply if the case is to proceed – the law of the place where the wastes

⁷¹ Initial reactions to the Liability Protocol varied. Klaus Topfer, Executive Director of the United Nations Environment Programme, called the adoption of the Basel Treaty "an historic event that represents a major shift toward cleaner production, capacity building in developing nations and a desire to move away from the throw-away philosophy that is all too common." However, not all commentators shared such praise for the Protocol. Tom Wolfe, an attorney with the Washington, D.C.-based Capital Environmental, called the Liability Protocol "all politics, really not legal [work] or negotiating," which was advanced merely because it "looks good for the U.N. program." Kevin Stairs, a political advisor with Greenpeace International, further derided the Protocol as "the sad result of 10 years of effort by the industrial lobby to reduce the original intention to a text with as many holes and exclusions as Swiss cheese." [Cited in 1999 Colo. J. Int'l Env'tl. L. & Pol'y 253.]

⁷² Article 1.

were generated, or, where they were released, or, where the damage occurred, or, where the case is being adjudicated? Then there are the problems associated with enforcing a successful verdict. Will this be possible? Some countries have agreements to allow for the reciprocal enforcement of judgments obtained in each other's courts. But usually such agreements only allow for recovery of money judgments. And what if there is no such arrangement at all?

These '*conflict of laws*' difficulties have been reported even in countries with mature and developed legal systems. A UK corporation and its US agent sued a UK corporation in 1989 for shipping copper residue to it (the UK corporation) for reclamation without disclosing the presence of organic chemicals. The UK court dismissed the case on the ground that all the defendant's actions occurred in the US.⁷³ The US court dismissed the case on the ground that the claim failed to meet US statutory requirements, namely, there was no clear allegation of a violation of a law of nations or treaty law, and, there was no provision in the law under which the action was filed for a remedy in respect of acts causing imminent and substantial endangerment abroad.

The State of the Party injured may also have pursued the matter on a bilateral State-to-State basis. But it may not always be possible for an individual litigant or a community to persuade the State to take up cudgels on its behalf.

The Basel Liability Protocol overcomes some of these critical problems. This part of the paper outlines and discusses the main elements of the Liability Protocol.

2.1 Scope

The protocol applies to damage due to an incident during a transboundary movement of hazardous wastes and their disposal, including illegal traffic.

The movement starts where the wastes are loaded for transport in an area under the national jurisdiction of the exporting State and may continue through any number of States of transit. It ends either upon notification of the completion of disposal by the disposer to the exporter⁷⁴ and the competent authority of the State of export or, where no notification is made, upon completion of the disposal.

The damage for which liability attaches must be suffered in an area under the national jurisdiction of a Contracting State arising out of an incident during the transboundary movement. Thus only Parties to the Protocol benefit. This provides an incentive for countries to ratify the Protocol. The 'incident' for which a claim may be made is defined to include the occurrence which causes damage or which creates a grave and imminent threat of causing damage.⁷⁵ During the negotiations some countries had objected that this formulation would include incidents which occurred wholly within the territory of the exporting State. To deal with this objection, a Party may notify the depository (the Secretary General of the UN) that it excludes from the Protocol any

⁷³ *Amlon Metals Inc v FMC Corporation* 775 F. Supp. 668 (S.D.N.Y. 1991), cited in Sean Murphy, *loc. cit. infra*, at pp. 40-41. If the US had been a party to the Basel Convention at the time of the export, the position may well have been different under the first ground.

⁷⁴ In relation to movements destined for one of the operations specified in Article IV of the Convention (with certain exceptions). For those categories of activities excluded from this notification requirement, the movement ends when the specified subsequent disposal operation is completed.

⁷⁵ See also definition under the 1992 Protocol to the CLC. This will allow for claims for expenses involved in taking measures in anticipation of the damage.

damage in its area of national jurisdiction arising out of any incident in respect of movements for which it is the State of export.

Where a State of export is not a Party but the State of import is, the Protocol only applies to damage from an incident after the disposer takes possession of the wastes. The disposer is one to whom the wastes are shipped and who carries out the disposal that is the operation specified, of such wastes: [Article 2 of the Basel Convention]. Where a State of export is a contracting Party but the State of import is not, the Protocol only applies to damage from an incident arising before the disposer takes possession of the wastes. In essence then, where only one State is a Contracting Party, the Protocol will only apply to damage that occurs while the hazardous wastes are in the possession of that Contracting Party. It follows that when neither the exporter nor the importer are Parties, the Protocol does not apply.

In particular, the Protocol applies to damage resulting from an incident during transboundary movement of wastes falling under Article 1(1)(b) of the Convention if:

- a. Wastes are notified by the State of export or import or both in accordance with Article 3 of the Convention⁷⁶; and
- b. Damage occurs within the national jurisdiction of a State (including a transit State) that has defined or considers those wastes as hazardous and has informed the Secretariat of this pursuant to Article 3 of the Convention.

US exporters were particularly concerned that they would have to pay for accidents that occur after the hazardous material had arrived at the disposal site. They succeeded in having the draft protocol changed to limit their liability to accidents occurring only while the material is in transit.⁷⁷

The Protocol does not apply to damage outside the national jurisdiction of a Contracting Party [Article 3(2)(a)], except in respect of the following categories of damage occurring in any areas beyond any national jurisdiction [Article 3(2) (c)]:

- a. Death or personal injury;
- b. Damage to property; and
- c. Costs of preventive measures including damage caused by taking these measures.

Even when both Parties are Contracting Parties, Article 3(6) provides that the Protocol may not apply where both Parties are part of a liability agreement entered into prior to the Protocol's entry into force⁷⁸ if:

- a. The damage occurred in the jurisdiction of a Party to the agreement;
- b. The agreement 'fully meets, or exceeds the objective of the Protocol by providing a high level of protection to persons who have suffered damage'⁷⁹;

⁷⁶ Art 3(1): Within 6 months of becoming a Party, each Party shall inform the Secretariat of the Convention of the wastes (other than those listed in Annex I and II) considered or defined as hazardous under its national law and of any requirements concerning the transboundary movement procedures applicable to such wastes.

⁷⁷ See Jack Lucentini, Exporters Won't Be Hit with Cleanup Costs Under Revised Liability Proposal, J. Com., Mar. 26, 1999, at A3, available in 1999 WL 6374608. According to one estimate, the "proposed agreement [could] affect an estimated \$ 14 billion to \$ 18 billion in materials exported by U.S. producers."

⁷⁸ Article 3(6)(a). This provision primarily impacts developed countries that are parties to the Organization for Economic Cooperation and Development (OECD).

⁷⁹ Article 5(6)(a)(ii).

- c. The Parties to the agreement have notified the Depositary that the Protocol will not apply; and
- d. The Parties have not declared that the Protocol will apply.

This exemption (where a liability agreement exists) has been severely criticised. It is suggested that this provision be inserted at the insistence of the advanced industrialised countries wishing to exclude their own arrangements. The vast majority of hazardous waste shipments now taking place occur within the OECD. So most shipments will not be covered under the Protocol.⁸⁰

The Protocol will also not cover other bilateral, multilateral or regional agreements covering liability and compensation, if the agreements were in force or were opened for signature at the time of the Protocol's completion, even if the agreements were amended afterwards. This exemption is designed specially for the International Maritime Organization's International Convention on Liability and Compensation for Damages in connection with the Carriage of Hazardous and Noxious Substances (HNS Convention), which was opened for signature in May 1996.

2.3 Damage recoverable

The damage that can be recovered is as follows:

- a. Loss of life or personal injury;
- b. Loss of or damage to property;
- c. Loss of income directly from an economic interest derived from the impairment of the environment;⁸¹
- d. Costs of actual measures taken, or to be taken, to reinstate the environment; and
- e. Costs of preventive measures. This includes any loss or damage caused by such measures.

2.4 Parties: Who is liable?

During the negotiations a range of options were produced as to who should be primarily liable. Finally two options emerged. First, liability was to attach to either the notifier or the exporter (usually the State of Export). Secondly, liability was to attach to the person in operational control of the wastes at the time of the incident. The insurance industry was amongst those favouring the first option. They preferred this option as Article 6(1) of the Basel Convention established clearly who was the notifier (the State of export, the generator or exporter). Also this option accorded with the 'polluter pays principle', as the exporter is one of the Parties that put the waste in circulation. It was also argued that making the notifier liable would also avoid conflicts with other conventions, in particular the HNS Convention.⁸²

⁸⁰ It is believed that OECD countries account for approximately 98% of the world's hazardous wastes much of which ends up in developing countries.

⁸¹ Early on at the fifth negotiating session, agreement was reached to not include pure environmental damage within the Protocol. This is also in accord with the recently concluded International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea in 1996 (HNS Convention). It has been signed but not ratified and is not in force yet. For text see Maritime Environment Law, Service Issue No. 11, 1998, para 5.502.1.

⁸² See 'Insurance replies about the draft protocol of liability and compensation', note of the Secretariat (UNEP/CHW.1/5/3), 7 May 1997, at paras 17-23, cited in Peter Lawrence, Negotiation of a Protocol on Liability and Compensation for Damage resulting from Transboundary Movements of Hazardous Wastes and their Disposal, RECIEL, v. 7, issue 3, 1998, at 252, 255.

A minority, including some industrialised countries, argued in favour of the second option (liability of those in operational control). They felt it fairer to assign liability to a person who was best placed to take action to avoid damage. But those who opposed this pointed to the experience of US domestic law where a similar concept had produced complicated litigation.

Finally it was agreed that liability be channeled along the following lines.

- a. Generally, when the importing State and exporting State are both Contracting Parties, the Protocol will apply until the completion of disposal.⁸³ In this case, the notifier⁸⁴ will be strictly liable until the disposer takes possession of the wastes, at which time the disposer would be liable for any damage.⁸⁵
- b. If the exporting State is notifier or if no notification has taken place, the exporter, but not the generator, will be held liable for damages until the disposer has taken possession of the waste.
- c. If the wastes are re-imported (because the movement cannot be completed in accordance with the terms of the contract), the person who notified is liable from the time the wastes leave the intended disposal site until the wastes come into the possession of the exporter.
- d. If the wastes are considered as illegal traffic and the exporter or the generator is required to take them back, then the person who re-imports is liable from the time the wastes leave the intended disposal site until they are in custody of the exporter.

2.5 Liability joint and several

If two or more persons are strictly liable, then the claimant can seek full compensation for the damage from all or any of the persons liable. This is particularly useful if any one of the persons liable cannot be identified, or is insolvent.⁸⁶

2.6 Standard of Liability

There is a two-tiered liability standard: both strict and fault-based.

- **Strict liability**

No fault needs to be established. It is sufficient to prove any damage resulting from the transboundary movement to trigger liability claim.

However, there are exceptions to strict liability. Article 4(5) states that no liability will attach if the person (in the categories described above) 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

⁸³ Article 3.

⁸⁴ The notifier may be the importer or exporter state. The notifier may also be the actual generator or exporter of the materials: Article 6 of the Basel Convention. Notification is in accordance with Article 6 which requires contracting states or their waste generators/exporters to inform concerned governments about the proposed cross-border hazardous waste shipments.

⁸⁵ Article 4.

⁸⁶ Article 4(6).

- d. Wholly the result of the wrongful intentional conduct of a third parties, including the person who suffered the damage.

As was noted in the discussion on the Civil Liability Convention relating to oil pollution, the situations contemplated in paragraphs (c) and (d) must be the exclusive cause of the damage to justify exoneration from liability. The use of the phrase '*wholly the result of*' makes this clear. By the same token, the absence of this phrase in the other two paragraphs makes it unclear whether the person liable could be exonerated if the situations stated were a parallel, cumulative or complementary cause. On a straight reading of the provisions, the mere existence of any such cause, no matter how minimal, would exonerate the person from liability. This weakens the strict liability provision considerably.

There is an additional exemption in Article 6(2) of the Protocol. No liability attaches to a person who is in possession and/or control of wastes for the *sole* purpose of taking preventive measures, if he or she acted reasonably and in accordance with any domestic law regarding the taking of such measures. This must be the only reason for the possession/control.

Where wastes covered by the Protocol cause damage and those not covered, then liability is restricted to the wastes covered by the Protocol in proportion to the contribution made by such wastes to the damage. The volume determines the proportion and the properties of the wastes involved and the type of damage occurring. Where it is not possible to distinguish between the respective attribution to the damage, then liability will extend to all the damage caused.⁸⁷

- **Fault-based liability**

Additionally, the Protocol assigns fault-based liability to any person "*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.*"⁸⁸ The first part of this provision is intended to deal with illegal traffic. It allows Parties to pursue, in addition to the person to whom liability is attached by the Protocol, any other person as described above. The rationale for this provision is that it would provide additional options for the plaintiff in situations where the person primarily liable is out of reach, such as where the defendant is insolvent, impecunious or uninsured.⁸⁹

2.7 Right of recourse

The Protocol allows Parties to have recourse to, which seeks a remedy from, any other person liable under the Protocol, and, in accordance with any contractual arrangements. Thus if under Article 4(6) a claimant succeeds in obtaining full compensation from one of the several Parties liable, then that party can seek to be indemnified by the other party to the extent of the latter's liability. The same position could possibly apply where a person has to pay for the damage caused by waste which cannot be distinguished from another person's waste. It may, however, be difficult to establish the extent of the liability of that other person and the amount that may be recovered from that person.

⁸⁷ Article 7.

⁸⁸ Article 5.

⁸⁹ Peter Lawrence, *loc. cit.* at p. 254.

The right of recourse is in accordance with the rules of procedure of the court competent to adjudicate the matter. The Protocol also preserves any other rights of recourse, if any, that are available under the law of such a court.⁹⁰

2.8 Limiting the amount of compensation

This was an area that was strenuously disputed with strongly opposing views by industrialised and developing countries. The former argued that the insurance coverage not be obtainable unless there was a limit; and that strict liability should be accompanied by a limit to liability. Developing countries argued that liability should not be limited to ensure that the innocent victim is fully compensated. They argued that a limit was only justifiable if a fund was set up from which the victim could seek the amount in excess of the limit.

The provision that finally emerged does not set any financial limits for fault-based liability. But it sets minimum levels of compensation for strict liability. The financial limits are set out in an annex to the Protocol. Changing annexes is theoretically easier than amending the main terms of the Protocol itself. Such flexibility is expressly provided for. The amounts set out shall be reviewed by the Contracting Parties on a regular basis.

Financial limits for strict liability are to be determined by domestic law. However the minimum limits are prescribed⁹¹ as follows:

- a. For notifiers or exporters for any one incident: no less than 1 million SDR (Special Drawing Rights, equivalent to US\$1.38 million) for shipments up to 5 tons of hazardous wastes; 2 million for shipments up to 25 tons; 4 million for shipments up to 50 tons; 6 million for shipments up to 1,000 tons and 10 million for shipments up to 10, 000 tons. Beyond these amounts an additional minimum of 1,000 SDR will be fixed for each additional ton up to a maximum of 30 million (US\$41.4 million) for any one incident.
- b. For disposers of waste, the minimum limit of liability will be fixed at 2 million SDR for any one incident.

2.9 Implementation of liability

• Compulsory insurance

The persons liable must take out insurance, bonds, or other financial guarantees to cover their strict liability. The amount of the cover is the minimum limits specified in Annex B [see paragraph 2.8(a) and (b) above]. States can make a declaration of self insurance. The cover must be taken out for the damage recoverable under the Protocol.

⁹⁰ Article 8.

⁹¹ The minimum amounts fixed have been criticised by environmental groups as insufficient to cover potential damages caused by hazardous wastes: Basel Action Network Report and Analysis of the Fifth COP, Jan. 24 2000. There are, of course, contrary views. Daniel Fantozzi, the US State Department's Office of Environmental Policy Director, expressed concern that the minimum penalties would have significant impacts on the trade of non-dangerous recyclable wastes. He noted that recyclable wastes 'can be in bulk shipments with very low hazardous components, but because of those components they would be caught by the agreement'. Absent some changes in the liability provisions to account for this concern, he declared, 'it would be a very serious question whether we would ratify'. Cited in Jerrod Long, *loc. cit.*

When notifiers inform the States to which wastes are to be moved under Article 6 of the Basel Convention, they must also provide the State of import with documentation proving liability coverage. Proof of coverage of liability of the disposer must also be delivered.

- **Direct action against the insurer**

Any claim for damages can be made directly against the insurer, or person providing the bond or other financial guarantee. These persons have the right to require the person liable to be joined as a party to the proceedings. The insurers and others providing the guarantee can invoke any defence that the insured could have raised to resist the claim. But they cannot raise any defence that could have been raised only between the insurers and the insured, like not paying the premium.

A Party may at the time when it becomes a Party to the Protocol notify the Depositary that it does not allow for a right of direct action against the insurer or the provider of the bond or financial guarantee.

2.10 Jurisdictional implementation

- **Place for claim**

A claim can be brought in the courts of a Contracting Party only where either:

- a. The damage occurred; or
- b. The incident occurred; or
- c. The defendant has his or her habitual residence, or principal place of business.

Parties must ensure that their courts have the necessary competence to deal with these claims.

- **Stay of related actions**

Where related actions⁹² are brought in the courts of different Parties, the courts, other than the one where the matter was first initiated, may stay the proceedings.

A court may decline jurisdiction if the law of the place where the action is initiated allows the several actions to be consolidated.

These provisions (on place for bringing the claim and stay of related actions) make it clear that a person can bring an action only in any one of the courts that has jurisdiction. Forum shopping, that is instituting claims in several courts, either at the same time or after an action in one jurisdiction fails, is not permitted. This is reinforced by Article 12 that provides for mutual recognition and enforcement of judgments obtained under the Protocol, without a review of the merits.

- **Applicable law**

The law of the country where the claim is filed will be the applicable law in all matters, whether of substance, procedure, or rules relating to conflict of laws.

⁹² 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 judgments resulting from separate proceedings: Article 18(3).

While all rights and remedies under domestic law are preserved, claims for compensation against the notifier, exporter or importer based on strict liability can only be made in accordance with the Protocol.

- **Reciprocal enforcement of judgments**

Judgements under the protocol are recognised and enforceable in the courts of any contracting party as soon as the formalities required by that party have been complied with. The judgment cannot be reopened. This is provided it was not obtained by fraud, the defendant was given reasonable notice and fair opportunity to present his or her case, the judgment is not irreconcilable with an earlier judgment of a court of another contracting party; and it is not contrary to the public policy of the Contracting Party where the judgment is sought to be enforced.

These are the normal requirements that many jurisdictions impose for the mutual recognition and enforcement of judgments obtained in another country. Hence it is provided that if there is already such an arrangement in force between countries, then the provisions in the Protocol will not apply.

- **Time limit**

Claims must be brought within five years from the date the claimant knew or ought reasonably to have known of the damage. In any event the claims must be brought within ten years from the date of the incident. Where the incident consists of a series of occurrences having the same origin, then time begins to run from the last occurrence; if it is a continuous occurrence, then time runs from the end of that occurrence.

- **State responsibility**

The Protocol expressly preserves State responsibility on the international plane by providing that the Protocol shall not affect the rights and obligations of Contracting Parties under the general international law with regard to State responsibility: [Article 16].

3. No compensation fund

There was a distinct divide between developing and developed countries over the need to establish an international fund to bolster inadequate compensation. Article 14(1) of the Basel Convention states that Parties *shall decide* on the establishment of 'appropriate funding mechanisms of a *voluntary* nature'. Article 14(2) provides that Parties 'shall *consider*' the establishment of a revolving fund to assist on an interim basis in case of emergencies to minimise damage from accidents arising from the transboundary movements of hazardous wastes and their disposal. As the italicised words above make clear, the financial mechanisms are tentative and the amount of contribution uncertain.

Developing countries wanted to establish a fund that would ensure that full compensation was always available, especially where for any reason compensation was not forthcoming or inadequate, for example, where there was insufficient insurance. The Secretariat of the Basel Convention had collected data identifying how the fund would be useful in a number of situations. Developed countries rejected this data as being inadequate and questioned the need for such a fund.

There was also a demand from developing countries that a global fund be set up to provide compensation for cleanup of waste spills where the person responsible is unknown or financially unable to pay for the costs. Developed countries also strenuously resisted the establishment of such a fund. In September 1999, developed countries, including Germany, Australia, and Canada, finally rejected attempts to establish any compensation fund although, prior to the December 1999 meeting when the Protocol was finally agreed, UNEP had voiced concerns that the lack of funds for managing wastes in developing countries whose "capabilities and capacities... in disposal, monitoring and enforcement are quite weak", was in fact a serious problem.⁹³

What finally emerged was the creation of a financial mechanism that states that "*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*" [Article 15]. To placate developing countries' concerns, a vacuous provision provides that "*the Meeting of the Parties shall keep under review the need for and possibility of improving existing mechanisms or establishing a new mechanism.*"⁹⁴

4. No liability for generator of waste

The Protocol does not make the generator liable as such. By passing waste on to a notifier or exporter, a generator can escape all liability. Critics argue that these notifiers may lack sufficient financial resources to effectively deal with potential accidents. Arguably, this creates an incentive for generators to export their waste, contrary to the original purpose of the Basel Convention.

In particular, the ability to escape generator liability through the Basel Convention may tempt US corporations to export their waste, avoiding liability under the US "Superfund" legislation. Under the Superfund provisions, a waste generator in the United States who disposes his or her waste in a landfill that is not run properly is jointly liable for any damage. So a generator is always on the hook, which encourages a firm to ensure that the waste is being handled correctly. However, all this is being undercut by the option to terminate liability under the Protocol. This could be a significant and real incentive to export.⁹⁵

⁹³ Gustavo Capdevila, *Environment: Rich Nations Block Hazardous Waste Disposal Fund*, Inter Press Service, September 7, 1999, available in 1999 WL 5950416.

⁹⁴ African countries had argued right till the very last day of the fifth meeting of the Conference of the Parties for stronger wording that would make participation in the financing mechanism obligatory for wealthier countries, but in the end they caved in on the promise that their demand would be reconsidered in the near future and that assistance would be provided to African countries to help them put in place accident prevention measures: *Compensation and Liability Protocol Adopted*, *Env'tl Policy and Law*, 30/1-2 (2000), 43 at 44.

⁹⁵ Jerrod Long, *Hazardous Materials and Energy : Protocol ...*, 1999 *Colo. J. Int'l Env'tl. L. & Policy* 253 at 259.

PART C

**TOWARDS A
LIABILITY AND COMPENSATION REGIME
UNDER THE BIOSAFETY PROTOCOL**

The foregoing summary and brief analysis of three multilateral agreements shows that a variety of approaches have been used in international law to foster liability and compensation for environmental damage. Article 27 of the Cartagena Protocol on Biosafety envisages a binding multilateral agreement.

Developing countries had insisted at the outset of the negotiations for a Biosafety Protocol that without liability and compensation, the Protocol would be quite meaningless. But the debate on the other main elements turned out to be too protracted and rancorous to allow for the inclusion of negotiations for a liability regime. In the end the developing countries⁹⁶ were content to proceed with the other elements of the Protocol, to secure the development of international rules and procedures relating to the transboundary movement of 'Living Modified Organisms' (LMOs)⁹⁷ with the knowledge that liability negotiations would follow. Hence the emergence of Article 27 in its present form.⁹⁸

PROSPECTIVE REGIMES

There are at least three possible prospective regimes. This section gives a brief outline of each.

1. Transnational process regime

A transnational process regime would be process orientated. It would not establish substantive standards to be applied by national courts, but merely strengthen local remedies available by eliminating or minimising difficulties relating to such common elements as subject matter, jurisdiction over natural persons, the most convenient forum for preferring claims, the applicable law to decide questions in dispute, and enforcement of judgments.

An example: Party A's national suffers damage as a result of the transboundary movement of genetically modified organisms (GMOs). The damage is caused by the national of Party B. The Protocol could enable the claimant (A's national) to sue in the courts of B on the same basis as B's nationals, that is as if A were a national of B. A, as a State, would also be allowed access to B's courts for any damage it suffers. Provision

⁹⁶ The developing countries constituted themselves as the 'Like-Minded Group' instead of the more traditional 'Group of 77 and China', since Argentina, Uruguay, and Chile were no longer with them.

⁹⁷ Initially, the Convention on Biodiversity and the Biosafety Protocol used the term 'GMO' to describe genetically modified organisms. This was changed to 'Living Modified Organisms' (LMOs) at the insistence of the US, who were concerned that the term 'GMOs' would undermine their argument that this technology was no different from traditional breeding.

⁹⁸ Article 27 reads: The Conference of the parties serving as the meeting of the Parties to this Protocol shall, at its first meeting, adopt a process with respect to the appropriate elaboration of international rules and procedures in the field of liability and redress for damage resulting from transboundary movements of living modified organisms, analysing and taking due account of the ongoing processes in international law on these matters, and shall endeavour to complete this process within four years.

could also be made to facilitate inspections, exchange of information and consultations between States. Such an approach has been adopted in the Convention on the Protection of the Environment between Denmark, Norway and Sweden (the 1974 Nordic Convention).⁹⁹

An international fund could be established to take care of the plaintiff who has no or limited resources to pursue his or her claim.

The main drawback of this approach is that the provisions of the Protocol will be left to national courts to adjudicate upon. Claims may succeed in one court and not another. Then again certain claims may be accepted in some jurisdictions and not in others. Claims for life and property damage are common to most if not all jurisdictions. But different jurisdictions differ in allowing claims for depletion of the environment, or economic loss flowing from such damage. The quantum awarded may also vary greatly. Both the procedural and substantive rule for proving a case may also vary with different jurisdictions. This lack of uniformity could give rise to an unfair international system of dealing with exposure to common damage.

There are solutions to these problems. One is to allow country B's courts to apply A's more favourable laws. Or country A's courts could hear the claim applying its own laws. A third option could give the claimant a chance to pursue remedies in the court it feels will give it the most favourable result. As was noted in Section I of Part B, the Space Objects Liability Convention allows for the latter option.

Then finally there is the problem of ensuring compliance by the State of its obligations.

2. Negotiated international private law regime

This approach would establish a binding agreement specifying a body of liability law enforceable in domestic courts against private individuals. In other words, a Party to the Protocol must enact national liability laws incorporating the elements specified in the international agreement it has signed.

Most multilateral environmental liability agreements of the past decade have adopted this approach. In addition to covering jurisdiction over foreign persons and entities and the enforcement of judgements, such a regime will set out clear internationally recognised liability standards. These would include standing to sue, nature of liability, burden of proof, damages that could be claimed, and limits on recovery. Further provisions could deal with matters of ensuring recovery of compensation awarded, such as compulsory insurance, and/or an international fund.

Once accepted, the liability protocol would become part of national law either through self-execution, that is automatically without any other national implementing legislative or executive process, or by implementing legislation. Such a law would largely do away with the lack of uniformity inherent to a transnational process regime.

As we noted in Part B, such a negotiated international private law regime is the approach of the CLC dealing with liability for pollution damage from oil spills and the Basel Convention on the transboundary movements of hazardous wastes. Several conventions in the field of nuclear energy¹⁰⁰ also adopt this approach.

⁹⁹ 1092 UNTS 279. It entered into force on May 10, 1976.

¹⁰⁰ The 'Paris Convention' regime was developed by the OECD and so is not global in scope. It comprises: Convention on Third Party Liability in the Field of Nuclear Energy, 1960 and the Convention

Many complex and myriad issues have to be dealt with, such as who is to be liable, the standard of liability, any financial limitations, types of damage recoverable, satisfaction of judgment, setting up of funds or other schemes (such as insurance) for that purpose, and liability of governments to pay for shortfalls.

If such a liability regime is accepted, first Contracting Parties will have to incorporate the provisions agreed in a national law. Then a person who suffers damage could seek relief from a domestic court of a Party. The choice of the court will be established by the Protocol. This court will have to decide the claim by applying the rules on liability and compensation set out in the Protocol.

An International Fund Regime would likely follow the successful conclusion of a negotiated private international law regime on liability. It would likely be required. There would be a fund authority with specific functions such as providing funds to satisfy a judgment where, for any reason, the funds are not otherwise forthcoming or are inadequate. These funds could be to pursue litigation, providing financial aid for emergency clean-up, for all damage, and to indemnify a person upon successful conclusion of the litigation. An example of such a fund is that under the 1971 Fund Convention for Oil Pollution Damages.

3. International arbitral regime

The role of governments in the regimes discussed thus far is as a facilitator for private parties to pursue their claims. Their role is to negotiate and create an international Protocol for this purpose. It does not extend to participation in actual litigation, unless States are claiming for reparation for the damage to their interest as a State.

In an international arbitral regime, governments would act as claimants and defendants through some form of intergovernmental dispute resolution. We looked at one such regime - the 1972 Space Objects Liability Convention discussed in Part B Section I. Here the State is held liable for activities which could have been undertaken by individuals or entities. The claims process is also as between two States.

If such an arbitral liability regime is established for biosafety, then a State whose environment or nationals suffer the harmful effects of a GMO could bring a claim against the State where the GMO originated, the State with jurisdiction over the entities in operational control of the GMOs at the time of the release, or the State where the GMOs were released. The Protocol would then establish a claims procedure. It could make the International Court of Justice the final adjudicator, or a form of international arbitration akin to that as obtains in the domestic laws of countries with a common law tradition. A third option would be to establish a panel of experts to undertake the arbitral function.

The applicable law would have to be specified, as well as the substantive liability rules, as has been done for the Space Objects Liability Convention.

Supplementary to the 1960 Convention. The 'Vienna Convention' regime is global in scope, and comprises: Convention on Civil Liability for Nuclear Damage, 1963; Optional Protocol Relating to the Compulsory Settlement of Disputes, 1963. These two regimes – the Paris and the Vienna – are tied together in the Joint Protocol Relating to the Application of the Vienna and the Paris Conventions of 21 September 1988. In addition, see: the Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, 1971, and, the Convention on Liability of the Operators of Nuclear Ships, 1962 (never ratified by any state as yet).

It is most likely that the negotiated private international law regime will be favoured by most, if not all, countries involved in the negotiations for a Biosafety Liability Protocol.

AN ELABORATION OF THE ELEMENTS¹⁰¹

1. Scope

To what situations should the Biosafety Liability Protocol apply?

The Basel Liability Protocol applies to damage due to any incident occurring during a transboundary movement of hazardous wastes and their disposal. As noted earlier, transboundary movements commence from the moment the wastes are loaded on the means of transport under the exporting State's national jurisdiction until disposal in the importing State.

The scope of a Biosafety Liability Protocol should cover damage that results during transboundary movements as defined in the Basel Liability Protocol. However, significant damage can occur *after* the GMO is introduced directly into the environment. Transgenic plants can pass on the GMO trait (such as pesticide or herbicide resistance) to weeds, other plants and insects. Plant life and agriculture generally may be seriously impaired. All this may be manifested well after the introduction of the transgenic plant into the environment - that is, well after the transboundary movement as set out in the Basel Liability Protocol is concluded. The Biosafety Protocol recognises that the effects of GMOs may only be seen over potentially long periods because of the scientific uncertainty of the potential harm that GMOs may cause.¹⁰² For this reason the Precautionary Principle has been accepted as a key element in the regulation of GMOs under the Biosafety Protocol.

One solution is to define transboundary movements to include after care of disposal, that is, introduction to the environment of the importing State. It is instructive that during the negotiations for the Basel Liability Protocol, developing countries had called for such an inclusion on the ground that significant damage can occur in relation to matters such as the storage flowing from the disposal operation. Industrialised countries had opposed this suggestion arguing that it would be difficult to obtain insurance for such incidents and that this should be the responsibility of the State or company of import.¹⁰³

In particular, the scope of a Biosafety Liability Protocol should be extended to cover damage to the environment and to plant, animal and human life and health and to biodiversity by the introduction (export) of the GMO into the environment of the country of import over time. The Cartagena Protocol on Biosafety envisages providing against harm of GMOs on the conservation and sustainable use of biodiversity and to human health. Hence risk assessment measures require the identification and the evaluation of the possible adverse effects of GMOs in this respect [Article 15(1)]. This harm would occur not during the transboundary movement as such (like an oil spill or a falling space object), but by the introduction of the GMOs into the environment of the country of import and its continued presence in the place of disposal. Thus a GMO will be conveyed from country A to country B for purposes of propagation or multiplication

¹⁰¹ A summary of the elements appears as Annex I to this paper.

¹⁰² The 'gaps in knowledge' of risks posed by GMOs were recognised by the Conference of the Parties by its decision II/5.

¹⁰³ Report of the 5th session, UNEP/CHW.1/WG. 1/5/5 at 10. Also P.Lawrence, *loc. cit.* p. 251.

in country B over an extended period of time. The damage may occur, or manifest itself, some several years after introduction to country B.

For example, the Council of Europe Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (the Lugano Convention), adopts a broad approach to the issue of transboundary movements of GMOs. Article 2(1) provides that ‘dangerous activity’ includes the production, culturing, handling, storage, use, destruction, disposal, release or any other operation dealing with one or more genetically modified organisms which as a result of the properties of the organism, the genetic modification and the conditions under which the operation is exercised, pose a significant risk for man, the environment or property.¹⁰⁴

It may be useful to recall that the mandate for the negotiation of the Biosafety Protocol defined its scope as relating to the safe transfer, handling and use of the GMOs. The fact that it is to focus *specifically* on transboundary movements does not necessarily imply that the Protocol must necessarily confine itself *exclusively* to transboundary movements as narrowly defined.

2. Parties

2.1 The defendant

Against whom should the claim be made? The answer is: the person who breached the obligation. Both the question and the answer are disarmingly simple.

First, what is the obligation breached? Under the Biosafety Protocol, exporting States have an obligation in respect of GMOs introduced directly into the environment to notify the importing State and obtain its agreement in advance. By Article 8.1, the Party of Export must notify the importer State or require the exporter to ensure notification. The domestic laws of a country will most certainly reflect these provisions in the Biosafety Protocol. If this is the obligation breached, then what is the consequence? Any transboundary movement in violation of the notification principles will then be illegal under Article 25(1) of the Protocol. The first duty of a State in breach then is to make reparation. The content of this duty of reparation was stated by the Permanent Court of Justice in the *Chorzow Factory Case* as follows:

‘...The reparation must, as far as possible, wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed.’

So the parties must be restored to the position before the breach. The affected party (the State) can request the State of origin to dispose the GMO by repatriation or destruction as appropriate [Article 25(2)]. The cost must be borne by the latter State.

In this case the State of export (Party A) is the liable party against whom a claim has to be made. What happens if Party A does not accede to the request of the State of import, or the party of import proceeds with the destruction of the GMOs because of the exigency of the situation? Then again, Party A should bear the cost and damage arising from this destructive process.

¹⁰⁴ The HNS Convention adopts a narrow approach in contrast. It limits claims to damage arising from the carriage of hazardous or noxious substances by sea. This carriage by sea is limited to the period that these substances are on the ship or ship’s equipment: Articles 4(1) and 1(9) of the HNS Convention respectively.

If the illegal act creates an irreversible situation and it is not possible to restore the position to that obtaining before the breach by reparation/destruction of the LMOs, then reparation will have to take some other form.¹⁰⁵ If individuals or entities suffer damage then the notifier State and/or the exporter should be liable for all such damage.

If private individuals or entities suffer damage after the proper introduction of GMOs, that is with the full Advanced Informed Agreement (AIA) of the importing State, then there are three options as to the person to be fixed with liability:

- a. Liability could be 'channeled' to any one person to the exclusion of many others who could be responsible. These persons could include the generator or manufacturer of the GMO, the exporter, the exporting State, the notifier (either the exporting State or the exporter), the carrier, the importer or the importing State;
- b. Liability could be imposed primarily on one entity in the chain and secondarily on another;
- c. All those in the chain could be made jointly and severally liable for the damage.

Applying option (a), liability could be imposed on either the generator or the operator or the owner that produces or uses the GMO. This could be for example, a transnational corporation that develops and markets a transgenic plant. If damage arises from the operation of a facility, say a field on which are grown transgenic plants or seeds, then liability could be fixed on those having control of this field and carrying out the activity. Liability could also be channelled to carriers (transporters) of the GMOs if they are responsible for the incident that results in damage. So basically the person made liable is the polluter, based on the 'polluter pays principle.' This is to engender proper management by each entity in the chain of control.

This approach may not be appropriate for a biosafety liability regime for several reasons. First, there may be others in the chain who never obtain control but who nonetheless profit from the trade. These include brokers, such as import and export trading houses, as well as the producer of the GMO. Secondly, imposing sole liability on those who accept the GMO for introduction to their environment may be unfair; they may have relied on the data supplied by the producer/developer to make their safety assessment, or the damage may be caused by an unanticipated event or trait or manifestation. It may also be grossly inequitable to leave out the producer of the GMO, especially where the damage is attributable to the trait or behaviour of the GMO because of its modification.

Further, requiring domestic courts to confine action against only one entity may be resented by those countries whose laws allow for recovery against several wrongdoers.

Option (b) imposes primary liability on one entity and secondary liability on another party. For example, the entity that releases the transgenic into the country's environment may be made principally liable; and the producer of the transgenic made secondarily liable. This would make the person who could have prevented the damage the main person responsible for the compensation and the producer as a back up, in the event that the principal entity is insolvent, cannot be located or is incapable of paying the compensation in full. So claimants exhaust their remedy against the responsible

¹⁰⁵ See *infra*; and, Smith, *loc. cit.* at p.49.

entity then proceed to claim from others or from funding mechanisms. This position obtains in the case of nuclear damage.¹⁰⁶

Under option (c), an action could be brought against any of the persons liable in the chain for full compensation. Then it is for that person to seek indemnity from the other persons who are also to blame and for whose portion of blame the compensation was paid. The claimant will have maximum choice to seek out the defendant best able to satisfy any judgement.

Joint and several liabilities will achieve this objective. Such liability is incorporated in the Space Objects Liability Convention, the CLC and the Basel Liability Protocol. In the Space Objects Liability Convention, parties may conclude agreements to apportion liability amongst them. The Basel Liability Protocol allows parties to have recourse to any other person liable under the Protocol, and in accordance with any contractual arrangement. The right is exercisable in accordance with the rules of procedure of the adjudicating court.

The defendants liable under the Space Objects Liability Convention are any one or more of the four States involved in the activity. Under the CLC, the defendant is the ship owner who is registered or, if there is no registration, then the actual owner¹⁰⁷; it bars action against some of the other entities involved. Under the Basel Liability Protocol, it is the notifier: the State of export, the generator or the exporter. State responsibility is expressly preserved so that a claim can be brought against a State for liability, as discussed in Part A of this paper.

To summarise, the Biosafety Liability Protocol should allow for claims against any one or more of the following for damage resulting from a GMO as applicable:

- a. The State of export if damage results from the deliberate introduction of a GMO into the environment (following the formulation of the Biosafety Protocol) of the country of import, in breach of the obligation to notify, or require the exporter to notify in accordance with Article 8 of the Biosafety Protocol.
- b. The manufacturer of the GMO if the harm is caused by the properties of the GMO, the genetic modification and the conditions under which the GMO is introduced and continues to remain in the received environment.
- c. If the damage results from the failure to provide an adequate system of safety, such as physical barriers, then the operator responsible for this default.
- d. In all other cases, any one or more of the following: the manufacturer of the GMO, the exporter, the country of export and anyone else responsible for putting the GMO in circulation into the environment.

Further liability should be joint and several.

2.2 Who may prefer a claim (the plaintiff)

Under the Space Objects Liability Convention, the plaintiff may be the State itself, the State of nationality of the individual victim, or the State where the victim has his or her

¹⁰⁶ See Part B of this paper.

¹⁰⁷ 'Piercing the corporate veil' was not preferred. This is in line with a victim-orientated convention where compensation should be promptly and efficiently recovered: Wu Chao, loc. cit. at p. 55.

permanent residence. This last category is an extension of the right to bring a claim in international law, as normally a State can only bring claims against another State for damage to its own nationals. If none of the three States present a claim then the victim is without a remedy.

Under the CLC, any affected person may bring a claim: any individual or partnership, or any public or private body, whether corporate or not, including a State or any of its constituent components.

Under the Basel Liability Protocol, the person who may claim is not specified. By implication it is any person who suffers damage; this would cover individuals, entities and the State itself under the provisions of this protocol as well as under general rules of international law on State responsibility.

The Basel Liability Protocol provisions seem the best suited for adoption in a Biosafety Liability Protocol.

2.3 What is the damage recoverable?

Damage to **life** and **property** and personal injury should clearly be made recoverable. Impairment to **health** should also be expressly provided for as the potential for the Convention on Biological Diversity, and the Cartagena Protocol on Biosafety envisage GMOs to impact on health. (See for example Article 11(8), which refers to the application of the Precautionary Principle in relation to potential risks to human health.) The Space Objects Liability Convention speaks of ‘impairment of health’ which arguably is of wider import as it could cover a whole range of direct and indirect effects on health.¹⁰⁸

The more complex issue is whether (and if so, how) damage should be recoverable for damage to the **environment**. The subsequent amendments to the CLC on the definition of ‘pollution damage’ as well as the Basel Liability Protocol have dealt with environmental damage indirectly. The damage recoverable extends to cover the actual costs of reinstating the environment provided these measures are reasonable, the costs of any preventive measures as well as any damage resulting from the taking of these measures. However it may not be possible to reinstate an environment damaged by GMOs as these are live organisms. They can mutate and, in any event, cannot be recalled. And the damage may manifest itself and persist and over long time duration.

What is the measure of compensation payable for a damaged environment? How is damage to biodiversity to be valued? Some national and regional laws include provisions fixing specified amounts for ecological damage, and other national laws, for instance of an Switzerland, include provisions to reinstate the environment.¹⁰⁹

Decision II/5 of the Conference of the Parties to the Convention on Biological Diversity envisages providing against any adverse impact on the conservation and sustainable use of biodiversity. This implies that any related damage should be recoverable under a Biosafety Liability Protocol. But it is a daunting task to define with precision what constitutes such damage. One option is to provide for recovery of damage for the **‘significant reduction or loss of biodiversity’**. Then it will be for the

¹⁰⁸ See Hurwitz, loc. cit. at p. 13.

¹⁰⁹ Report of the Workshop on Liability and Redress arising in relation to the Draft Biosafety Protocol, 30 June – 2 July 1998 (Organised by the European Commission and the UK Department of Environment, Transport and the Regions), at p. 4.

court adjudicating the matter to decide on what constitutes significant loss and how it should be compensated on a case by case basis.

Interestingly, the 'incident' that will give rise to the claim is defined in the CLC, as amended, and the Basel Liability Protocol, as not only the occurrence that causes the damage but, as well, an occurrence that creates a **grave and imminent threat of causing damage**. This, as noted earlier, will allow claims to be made for the expenses involved in taking measures in anticipation of pollution damage.

Finally, Article 26 of the Cartagena Protocol on Biosafety requires Parties to take into account the **socio-economic impacts** of GMOs especially on indigenous and local communities. It is conceivable that the introduction of GMOs may have an adverse effect on the continuation by such communities of their traditional agricultural systems and practices.¹¹⁰ In principle, such damage should be recoverable. Determining the appropriate reparation and the measure of damage, would be no easy task but it is not beyond attainment.

Also recoverable should be the loss of profits from a damaged environment. Losses attributed to the impairment of any economic interest derived from the environment is expressly provided for in the Basel Liability Protocol as well as other economic losses¹¹¹ that reflect proximate or adequate causality – proving that the damage flowed directly from, and was integrally related to, the incident. The International Convention Fund for Compensation for Oil Pollution Damage has developed certain criteria to determine whether there is a sufficiently reasonable degree of proximity for a claim to be admitted. Most important of these are the geographic proximity between the claimant's activity and the contamination, and the degree to which the claimant is economically dependent on an affected resource.

It must be reiterated that liability and compensation regimes are put in place not only to provide compensation for the restoration of the environment but also to compensate those who suffer economic loss, in particular farmers, fisherfolk and the local populace, until the environment has been restored to its condition prior to the incident.

3. Standard of liability: strict or fault-based

In all the three instruments discussed, strict liability is the standard imposed. Many other multilateral conventions also impose strict liability.¹¹² There is a two-tier approach: it is implicit in the provisions that strict liability is for those activities that are deemed to be ultrahazardous and in respect of damage that is *non volenti* – where the victim has not agreed to risk the injury by his own conduct. Ultrahazardous activity also incorporates those situations where the probability of the incidence occurring may be low but the magnitude of the harm huge.

There is growing evidence that no matter how low the incidence of occurrence is claimed to be, the magnitude of the resultant harm from a GMO gone wrong could have catastrophic results – causing irreparable harm to agricultural ecosystems, crops, export earnings, indigenous knowledge systems and threatening food security. This qualifies any activity relating to GMOs as 'ultrahazardous.' For precisely this reason (low

¹¹⁰ Article 8(j) of the Convention on Biological Diversity acknowledges that these practices have a salutary beneficial effect on the conservation and sustainable use of biodiversity.

¹¹¹ See the argument made by Hurwitz loc. cit. at pp. 14-18 as to the basis for its inclusion.

¹¹² See supra at p.

probability high magnitude), the Biosafety Protocol is guided by the Precautionary Principle in the implementation of its key regulatory aspects. For this reason, too, strict liability would be an appropriate standard for liability for damage caused by GMOs.

Strict liability will deter reckless behaviour and claims in the development and marketing of GMOs. For all of these reasons liability should be strict. Strict liability may also be one way of operationalising the Precautionary Principle which governs the key elements of the Cartagena Protocol on Biosafety.

Fault-based liability is only confined to the limited situations where the activity is either less hazardous or the person has volunteered to run the risk. Farmers affected by the contamination of their fields and crops by horizontal gene transfer, for example, have never volunteered to assume the attendant damage.

A two-tier approach to the standard of liability for a Biosafety Liability Protocol is appropriate for the same compelling reasons as exist for the other three instruments discussed in Part B of this paper.

4. Exoneration from liability

It is accepted in domestic laws to exonerate a party from strict liability in certain circumstances. These include assumption by the injured of the risk of harm, intentional suffering or infliction of harm by the injured, the intervening acts of a stranger that causes the harm, *force majeure* and acts of God.

In respect of transnational cases, however, multilateral conventions restrict the categories of circumstances for which liability can be avoided. *Force majeure* is limited to an act of armed conflict, invasion (or hostilities), civil war, insurrection or a grave natural disaster of an exceptional character (inevitable, unforeseeable, and irresistible). Assumption of the risk is limited to the site of the abnormally dangerous activity (place of launch for space objects, for example). Intervening act of a stranger is an absolving circumstance only under the CLC. In the Space Objects Liability Convention, the only Convention that places direct responsibility on the State, only the act, omission or gross negligence of the victim exonerates blame. The Organisation of European Economic Community Convention (OEECC) does not extend the exoneration for operators to States on the ground that all such *force majeure* matters (such as armed conflict, invasion, etc.) are the responsibility of the nation as a whole. The Basel Liability Protocol adds an additional ground for exoneration: that the damage was wholly the result of compliance with a compulsory measure of a public authority of the State where the damage occurred.

Two further points must be made. First, exoneration is granted in some situations where the ground specified is the exclusive cause; and in some others, where it could be a parallel, cumulative or complementary cause. It is preferable for exoneration only for any effective cause for the damage. Secondly, exoneration may be proportionate to the extent that it is responsible for the damage. This is the position under the Space Objects Liability Convention. It contemplates degrees of exoneration.

This may be a useful compromise between allowing exoneration for any one of several causes for the damage – no matter how negligible and, refusing exoneration unless it is the exclusive cause.

5. Measure of compensation

Which law should be applied in determining the amount of damages payable in a Biosafety Liability Protocol? The existing multilateral liability and compensation regimes suggest the following range of options:

- a. The applicable principles of international law, justice and equity;
- b. The national law of the person injured (*lex patriae*);
- c. For special heads of damage (loss of profits and moral damage – that is, non-material damage), the law of the State liable for damages in general (the respondent State);
- d. The law of the place where the damage was caused (*lex loci*).

There is no specific provision in the CLC on this point. The favoured solution is to apply the *lex fori* – the law of the place of the court adjudicating the matter.¹¹³ The Basel Liability Protocol also applies the *lex fori* for all matters of substance or procedure regarding all claims [Article 19].

The Space Objects Liability Convention opted for (a). The determination of the compensation is based on all the relevant connecting factors; the decision will take into account international law and be just and equitable so as to restore the injured to the condition, which would have existed if the damage had not occurred.

With regard to a Biosafety Liability Protocol, two aspects in particular bear on the choice of the applicable law. The first is a concern that a person should be adequately compensated so that he or she is restored to the position obtaining before the injury. The other is that he or she should not unjustly be enriched. Perhaps the best solution is to adopt the position obtaining under the Space Objects Liability Convention - that is, to take into consideration all relevant factors and the fundamental principles of international law.

6. Limitation of liability

There is no limit to the amount of compensation recoverable under the Space Objects Liability Convention. Under the CLC, there is no limit for liability based on fault. However, for claims based on strict liability, the owner of a ship is entitled to limit his or her liability but the amount of the limitation is fixed. The same position obtains under the Basel Liability Protocol: no limit for fault-based liability; for strict liability, the financial limits are to be determined by domestic law. However the Protocol imposes minimum amounts for the limitation of liability.

The options are clear. Either there is no limit or only strict liability claims are limited. Then too the amount is specified, and, as for the CLC, conditions apply if limitation is claimed. Limitation is sometimes justified by the fact that a beneficial activity would otherwise be stultified, or that the amount of damages would be crippling and not be payable especially since insurance cover to meet the liability may not be available.

In the case of GMO's, it is recalled that the harm, should this new technology go wrong, could be colossal in magnitude. Furthermore, the players in the development and manufacture of transgenics are often transnational corporations with budgets larger than those of many developing countries. Given these competing values and the reality of

¹¹³ Wu Chao, loc. cit. at pp. 22-25.

the financial strength of the key players, it is undesirable to limit claims for strict liability. Otherwise the victims will be subsidising the powerful transnational corporations for the experimental phase of the often-questionable commercial projects of this technology.

7. Compulsory insurance or other financial guarantees

The requirement to have compulsory insurance has been imposed by the CLC and the Basel Liability Protocol. Bonds or other financial guarantees are also acceptable. Minimum amounts to cover the liability are specified. The insurers or other financial institutions can be sued directly. (The Basel Liability Protocol gives parties the option to declare at the outset that it will not allow direct action against insurers.) The defences that these institutions may raise are circumscribed, and they have a right of subrogation or indemnification (recourse) if they satisfy the claims on behalf of the insured. They can also ask that the insured be joined as a defendant.

Elaborate rules exist under the CLC for States to ensure that the person(s) potentially liable take out the compulsory insurance and provide adequate evidence of the insurance or other cover. These have been discussed at length in Part B, Section II.

These features should be incorporated into a Biosafety Liability Protocol.

8. Compensation fund

A fund is useful to provide for situations where the compensation awarded may not be payable to the victim in full or at all. For this reason the Oil Pollution Fund Convention supplemented the CLC. The Fund pays compensation to the victim who is unable to obtain full and adequate compensation because no liability arises under the CLC or because the shipowner cannot meet the obligations under the Convention or because liability exceeds the limits imposed under that Convention. The oil industry pays the contributions to this Fund.

This is an equitable way of defraying the costs amongst the whole industry as well as ensuring that no victim goes uncompensated fully. It also ensures that funds are available for any clean-up costs which a country is unable to bear.

In a Biosafety Liability regime, it seems a supplemental compensation fund would be needed. The biotechnology industry and/or their host countries could share the burden; while importing States are assured that the confidence projected by the industry and exporting States in their declarations of the complete safety of the technology is more than a public relations exercise and backed by an unequivocal financial commitment. The funds must be met by the industry and/or those developed industrialised countries which, by their own account, are engaged in the multi-billion dollar trade in GMOs.

As noted in the earlier discussion, the lack of a global fund under the Basel Liability Protocol has been severely criticised as a serious shortcoming.

9. The presentation and adjudication of claims

How should claims be filed? This depends upon the option chosen to resolve the claims. Is it to be by an international arbitral regime? Is it to be preceded by efforts at conciliation and mediation? If so, then the route taken by the Space Objects Liability Convention may be a sufficient model for a Biosafety Liability Protocol.

Claims are presented through the diplomatic channels of a country that has diplomatic relations with the defendant country within a prescribed time period. If there is no settlement within a time limit, then a Claims Commission is set up by the parties to hear and determine the claim.

There is no need for the national on behalf of whom the claim is made, to exhaust all available domestic remedies -- a departure, as was noted, from general international law. A private individual has also the right to bring claims in national courts.

Where should the claim be adjudicated? If the scheme chosen is a negotiated international private law regime, the claims will be resolved through the court of a State party.

Which court should be bestowed the jurisdiction to hear the claim? In the CLC, Article 9 provides that claims must be initiated *only* in the State where the damage occurs. For most oil pollution claimants, this means that suits must be brought at home. The use of the word '*only*' suggests that other fora be deprived of the jurisdiction. This appears to be going too far - as an action cannot be brought against others potentially liable for the incident in courts of the contracting State with which those defendants have a real connection.¹¹⁴ Secondly, Article 11 in the CLC can have no extra-treaty jurisdiction. If a shipowner is domiciled in a non-contracting State A, it is unlikely that that State A will prohibit an action being filed in its courts.

The Basel Liability Protocol gives three options. By Article 17, the competent court is 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.

Only in such courts, and in a contracting party, can the claim be brought. Again, it may be difficult to overcome the problem alluded to earlier about the inability of a liability regime to prevent claims from being brought in the courts of non-contracting parties.

It is suggested that the options in the Basel Liability Protocol be adopted for the Biosafety Liability Protocol.

10. Other implementation provisions

Other provisions that we examined in the other instruments and which need to be included for the efficacious implementation of a Biosafety Liability Protocol would include the following.

A **time limit** for bringing the claim must be set. Generally, time is fixed from the date when the damage occurs or is reasonably discovered to have occurred. Where the incident is a series of occurrences, then it is stipulated as to when the time begins to run – usually from the first, or last, date of such occurrence. This would be suitable in the case of GMO's.

There is also a need to stipulate **enforceability**. It is usually provided that judgments be considered final and be recognised in the States of all contracting parties for

¹¹⁴ Abecassis & Jarashow, loc. cit. at p. 220, para 10-86.

enforcement purposes. It is also usually provided that the judgment will not be considered final if it is obtained by fraud, or where the defendant was not given reasonable notice and a fair opportunity to present a case. The judgment has to be registered in the State before it can be enforced. But its merits cannot be re-litigated. Then the domestic court system takes responsibility for ensuring enforcement under its rules.

A final note: These provisions do not apply to non-contracting States. It is left to the national law of that State to determine whether to recognise and enforce the judgment. The same applies to judgments obtained in non-contracting States. These will be outside the regime established, and enforcement will depend upon the national laws of the contracting State.

CONCLUSION

A time frame of four years has been stipulated for the Parties to 'endeavour' to complete the process for the elaboration of a Biosafety Liability Protocol. The liability regimes discussed in this paper took an inordinately long time to complete. The Space Objects Liability Convention and the recently concluded Basel Liability Protocol were a decade in the making.

Will the Biosafety Liability Protocol suffer the same dilatory fate? It is hoped not. After all, most of the key concepts that are endemic to liability and compensation regimes in multilateral agreements have been thoroughly discussed.

All that needs to be done is to build on that cumulative knowledge and expertise. And a long overdue liability regime put swiftly in place.

The Elements for a Liability Regime: A Checklist

The elements can be summarised as follows:

- a. **Scope:**
 - For activity or damage?
 - If so, nature of each; locus of damage or activity.
- b. **Parties:**
 - Who is/are liable? Private individual/legal entity;
 - State/multiple States?
 - To whom is liability owed? Nationals/entities; foreigners; residents.
- c. **Standard of Liability:** Strict; fault-based; a combination?
- d. **Exoneration from Liability:** Grounds on which liability can be excused.
for strict liability; for fault-based liability; for both.
- e. **Liability where several persons responsible:** making one person liable; making the main person assume primary, and others, secondary, responsibility; joint and several liability.
- f. **Damage:** For what kind of damage/ injury?
 - Direct; indirect; pecuniary for restoration of environment; damage for preventive work.
 - Basis for damage: compensatory; restitutionary; punitive?
- g. **Measure of Damages:** applicable law for determining;
- h. **Limitation of Damages:** awarded basis different for strict and fault-based; leaving States to decide; imposing the limits; maximum limits; or minimum limits.
- i. **Presentation of Claims:** through courts; or diplomatic channels; conciliation; adversarial.
- j. **Time Limits for Claim:** how determined; fixed time frame; extension of time; overall time limit.
- k. **Satisfying claims:** Need for Compulsory Insurance or other financial mechanisms; ability to sue insurance directly; Compensation Funds; indemnification.
- l. **Procedural Rules:** Operationalising the precautionary principle;
 - Burden of proof;
 - Choice of law;
 - Forum for claims;
 - Right of recourse.