Legal and Institutional Component LTBP Workshop Report

International Environmental Law and the Law of Transboundary Water Courses

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Pollution Control and Other Measures to Protect Biodiversity in Lake Tanganyika (RAF/92/G32)

Lutte contre la pollution et autres mesures visant à protéger la biodiversité du Lac Tanganyika (RAF/92/G32)

Le Projet sur la diversité biologique du lac Tanganyika a été formulé pour aider les quatre Etats riverains (Burundi, Congo, Tanzanie et Zambie) à élaborer un système efficace et durable pour gérer et conserver la diversité biologique du lac Tanganyika dans un avenir prévisible. Il est financé par le GEF (Fonds pour l'environnement mondial) par le biais du Programme des Nations Unies pour le développement (PNUD)"

The Lake Tanganyika Biodiversity Project has been formulated to help the four riparian states (Burundi, Congo, Tanzania and Zambia) produce an effective and sustainable system for managing and conserving the biodiversity of Lake Tanganyika into the foreseeable future. It is funded by the Global Environmental Facility through the United Nations Development Programme.









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1. INTRODUCTION

This paper has been produced in response to the request made at the Inception Workshop for the Legal Consultants to provide background information on relevant developments in international environmental law. The subjects addressed in this paper (international environmental law and the law of transboundary watercourses) cover wide and rapidly growing areas of law, and this paper will focus on those aspects which are of most relevance to the Lake Tanganyika project. Separate papers for the workshop deal with (a) conflict resolution and (b) legal and institutional arrangements for the management of lake and river basins in other countries and consideration of possible approaches for Lake Tanganyika.

Section 2 will examine how the concept of state sovereignty over natural resources has become balanced by responsibilities to protect the environment, and some of the fundamental principles which have developed on which international measures of environmental protection are to be based. It will also outline the main environmental protection obligations which the four states have already undertaken under international law.

Section 3 will outline the development of the international law of transboundary watercourses and discuss the most recent agreement in this field: the 1997 Convention on the Non-Navigational Uses of International Watercourses ("the Watercourses Convention"). Conclusions will then be drawn as to the main elements/trends in international watercourse law which can be extracted from the above analysis. This will be the background to the negotiation of an agreement for the establishment of a mechanism for the management of Lake Tanganyika.

2. INTERNATIONAL ENVIRONMENTAL LAW

2.1 Sources of International Environmental Law

The rules of international law derive their authority, in accordance with Article 38(1) of the Statute of the International Court of Justice, from four sources: treaties, international custom, general principles of law, and subsidiary sources (decisions of courts and tribunals and writings of jurists). However, beyond these sources of 'hard law', which establish legally binding obligations, there are also rules of 'soft law'. As Sands explains, soft law rules "are not binding *per se* but...in the field of international environmental law [they] have played an important role, by pointing to the likely future direction of formally binding obligations, by informally establishing acceptable norms of behaviour, and by 'codifying' or possibly reflecting rules of customary law."

Examples of soft law include non-binding declarations adopted by states, which although not legally binding may contribute to the development of customary law or lead to the adoption of binding obligations, for example, by treaty.

The United Nations Conference on Environment and Development held at Rio de Janeiro in June 1992 adopted several non-binding acts, the most important of which are Agenda 21 and the Rio Declaration. These include important elements which, as Sands states, "now reflect, or are contributing to the development of, customary international law...[and] continue to provide a significant influence on the development of new treaties and acts of international organisations." Agenda 21 sets out a global action plan for sustainable development, representing the priorities of the international community as regards the future development of international environmental law and guiding the development of policies and law at both national and international levels. Freshwater resources are addressed in Chapter 18.

lbid., p.117.

P. Sands, Principles of International Environmental Law, p.103.

Existing Treaty obligations of the lacustrine states are outlined in section 1.4 below. First, it is useful to look at the main principles which have become (or are becoming) part of international environmental law and which have a potentially valuable role in the formulation of an integrated management scheme for the Lake at international as well as national level.

2.2 The Principle of Sovereignty

One of the fundamental principles of international law is that of state sovereignty, which includes the sovereign right of states to exploit the natural resources within their territories according to their own environment and development policies. Yet, as states become more conscious of their inter-dependence, and their common reliance on the global ecosystem, international law in the area of environmental protection has developed rapidly and continues to do so. The sovereign right of states to exploit their own natural resources has become balanced by a general responsibility to ensure that activities within their own jurisdiction do not harm the environments of other states or of areas beyond national jurisdiction. This view was supported by the award of the Arbitral Tribunal in the Trail Smelter Case³, and is reflected in Principle 21 of the Stockholm Declaration and Principle 2 of the Rio Declaration which states that:

"States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond national jurisdiction."

This principle is also enshrined in Article 3 of the Convention on Biological Diversity to which the four states are party.

2.3 Emerging Principles

A number of emerging principles of international environmental law are also particularly relevant to the Lake Tanganyika project. Their precise status in international law is not entirely established: they are less than rules, yet their inclusion in a wide range of treaties and the importance which has been attached to them suggests that they are more than mere statements of policy. They can certainly serve as a useful guide in formulating and applying national and international rules for the protection of the Lake.

The Precautionary Principle

The essence of the precautionary principle is that in situations where there is reason to believe that something is causing serious or potentially irreparable environmental harm, preventive action should be taken immediately even in the absence of conclusive scientific evidence to establish that there is a causal link between the activity and the harm. There are numerous formulations of the principle, and it is not yet clear what threshold must be reached, in terms of risk of future harm and seriousness of potential damage, before an obligation to take precautionary action is triggered. Principle 15 of the Rio Declaration appears to set the threshold at "serious or irreversible damage", stating that:

"Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a justification for postponing cost-effective measures to prevent environmental degradation".

The Tribunal held that: "Under the principles of international law...no state has the right to use or permit the use of 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".

The precautionary principle was also recited in the preamble to the 1992 Biodiversity Convention and in the 1992 Transboundary Watercourses Convention. In the latter, the parties agreed to be guided by the precautionary principle:

"by virtue of which action to avoid the potential transboundary impact of the release of hazardous substances shall not be postponed on the ground that scientific research has not fully proved a causal link between those substances, on the one hand, and the potential transboundary impact, on the other hand." (Article 2(5)(a)).

One of the ways in which this principle can be applied in national law is to require developers to bear the onus of satisfying the authorities that a proposed development will not cause significant harm to the environment. This would mean that in situations where the environmental impact of a project is uncertain, it would not be authorised, whereas the current position in many countries is that consent must be given unless the authorities have evidence that harm will result.

The precautionary principle has been described as "the single most important underpinning of any regime intended to promote ecological balance and ecosystem integrity." ⁴ Chapter 18 of Agenda 21 calls for the use of a precautionary approach in water quality management, and it is important that this principle has a key role in the management of the Lake, particularly in view of the unique features of the Lake's ecosystem and the incompleteness of the scientific knowledge about the complex web of interconnected biological processes found there. In fact it could probably be argued that the precautionary principle forms the basis of the whole Lake Tanganyika project.

The Polluter Pays Principle

The polluter pays principle is concerned with the reallocation of the social costs of environmental degradation by regulating to ensure that such costs are borne by the parties to the action giving rise to the environmental degradation rather than by the society at large. There is no universally accepted formulation of this principle and the extent to which it is applied varies significantly. In most instances the application of the principle is limited, for example by stating that polluters are only responsible for the costs necessary to reduce pollution to within prescribed limits.⁵

The principle appears in a number of international treaty instruments, including the 1992 Transboundary Waters Convention in which the parties agreed to be guided by the polluter-pays principle "by virtue of which costs of pollution prevention, control and reduction measures shall be borne by the polluter." Principle 16 of the Rio Declaration states that:

"National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interests and without distorting international trade and investment".

One question which arises in applying the polluter pays principle is the question of what exactly the polluter should be paying for. What damage or loss should be compensated, and how should that damage or loss be quantified? Should the polluter compensate for the cost of

Brunnee and Toope, Environmental Security and Freshwater Resources. A Case for International Ecosystem Law p. 68.

The European Community formulation states that: "natural or legal persons governed by public of private law who are responsible for pollution must pay the cost of such measures as are necessary to eliminate pollution or to reduce so as to comply with the standards or equivalent measures laid down by the public authorities." Council Recommendation 75//436/EUATOM, ECSC, EEC of 3 March 1975, Annex, para. 2; OJL 169, 29.6.1987, p. 1.

⁶ Article 2(5)(b).?

This cautious wording reflects the belief by some states that the principle only applies at the national level and does not govern relations or responsibilities between states ate the international level.?

cleaning up the pollution as well as economic loss? For example in the context of a shared resource such as Lake Tanganyika, an oil spill might destroy a fishery in a remote area, destroying the livelihoods of the fishing community as well as destroying biodiversity. However, the clean up costs might far outweigh the economic loss to the fishing community. Another equally difficult issue would be how to value loss of biodiversity which may have no economic value *per se*.

The Principle of Preventive Action

This principle requires action to be taken to avert known or quantifiable risks as opposed to the precautionary principle (discussed above) which requires action to avert the possibility of creating risks which have not been accurately assessed. Preventive measures are usually justifiable on the basis that it is cheaper, safer and more desirable to prevent environmental harm occurring than to rectify it later (if indeed this is possible). The application of this principle can be seen in legal requirements for environmental impact assessments, development permits and consents.

Responsibility Not to Cause Transboundary Environmental Damage

Where water is shared by more than one country, the management of aquatic resources such as fish stocks, and the control of marine pollution, frequently have transboundary implications. Probably the most fundamental obligation of states which share a natural environmental resource is, as far as possible, to avoid creating adverse environmental effects on shared natural resources beyond its borders, and otherwise to reduce such effects to a minimum. Where activities in one state are likely to cause environmental impacts beyond the borders of that state, this principle should be taken into account.

Sustainable Development

The concept of sustainable development was first defined in the 1987 Brundtland Report as:

"development which meets the needs of the present without compromising the ability of future generations to meet their own needs". 9

It is now found in numerous international treaties to which the four lacustrine states are party, including the 1968 African Nature Convention, the 1973 CITES, and the 1992 Biodiversity Convention. Although there are widely differing views as to how sustainable development should, or could be, implemented in practice, there are four recurring elements which appear to comprise the legal elements of the concept, as reflected in international agreements. These are:

- *intergenerational equity*: the need to preserve natural resources for the benefit of future generations;
- sustainable use: the aim of exploiting natural resources in a manner which is 'sustainable', or 'prudent', or 'rational', or 'wise', or 'appropriate';
- equitable use or intragenerational equity: the equitable use of natural resources, implying that their use by one state must take account of the needs of other states;
- *integration*: the need to ensure that environmental considerations are integrated into economic and other development plans, programmes and projects and that development

See Sands, p 199.

See the "Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the conservation and Harmonious Utilisation of Natural Resources Shared by Two or More States"., (UNEP/IG. 12/2 and UNEP/GC. 6/17, approved by the Genreal Council Decision ob 19 May 1978 and by UN General Assembly Resolution 34/186 of 18 December 1979).

Report of the World Commission on Environment and Development, <u>Our Common Future</u>, p. 43 (1987).

needs are taken into account in applying environmental objectives.

Rational and Equitable Use of Natural Resources

Many international legal texts incorporate the principle that the use and management of natural resources generally, or of particular resources such as fisheries, should be "rational". Where a resource is shared by more than one country (typically an international watercourse or fishery) international law also emphasises that the community of interests of co-users of the resource gives rise to an obligation to negotiate in good faith to bring about an equitable allocation of the resource.

A variety of tools can be used to give effect to these principles in law. Although a full discussion of the various options is beyond the scope of this paper, they include environmental impact assessment, integrated pollution control, environmental quality standards, product standards, process standards, emission standards, and economic instruments such as charges, taxes, subsidies and trade measures.

2.4 Liability for environmental damage

In view of the possibility of environmental damage occurring as a result of activities carried out on or near the Lake, such as for example oil exploration, brief mention should be made here of the current status of international law on the issue of liability.

The rules of international law on liability for environmental damage are still evolving and in need of further development, particularly in relation to state liability. State liability for environmental damage is premised upon the violation of an international legal obligation. It is generally accepted that customary international law establishes an obligation to prevent significant damage to the environment of other states or to areas beyond national jurisdiction (eg Principle 2 of Rio Declaration). However, international law does not yet provide conclusive answers to a number of key questions which arise from this, including:

- Is the obligation to prevent any transboundary environmental damage, or only that which has serious / significant / appreciable consequences?
- Is the obligation based upon the need to prove fault or is it imposed by operation of absolute or strict liability?
- What reparation should be made for environmental damage?
- What is the extent of liability and the measure of damages?

Defining and quantifying environmental damage are among the most complex issues to be resolved. Various international agreements on civil liability (as distinct from state liability) have addressed these issues in the context of civil liability for damage resulting from specific activities, such as oil pollution (e.g. the 1969 Civil Liability Convention and the 1971 Fund Convention) and nuclear damage (e.g. the 1960 Paris Convention and the 1963 Vienna Convention).

Particularly worth noting is the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) which goes beyond any environmental liability provisions seen so far and, recognising the uniqueness and importance of the Antarctic environment in its own right, imposes liability for damage to the environment itself, rather than to the interests of a particular person. An operator of mineral resource activities is strictly liable for damage to the Antarctic environment or dependent or associated ecosystems which is defined widely as: "any impact on the living or non-living components of that environment or those ecosystems, including harm to atmospheric, marine or terrestrial life, beyond that which is negligible or which has been assessed and judged to be acceptable pursuant to this Convention." Furthermore, the sponsoring state is also liable to the extent that damage would not have

occurred or continued if the state had carried out its obligations under the Convention with respect to the operator. The rules are being developed further in a separate Protocol.

The 1969 Convention on Civil Liability for Oil Pollution Damage (CLC) establishes strict liability on the shipowner (up to specific limits) for "pollution damage" which is defined as "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, and includes the cost of preventive measures and further loss or damage caused by preventive measures". Compensation for impairment of the environment, other than loss of profit from such impairment, is limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken.

2.5 Existing Treaty Obligations

As discussed in the Legal and Institutional Baseline Study, ¹³ each of the four lacustrine states are already required (under customary law of by treaty) to fulfil the following obligations:

- establishment of policies for the conservation, utilisation and development of underground and surface water;
- reasonable and equitable use, development and protection;
- protection and preservation of the ecosystems of the Lake and its drainage basin;
- consultation and information exchange;
- incorporation of natural resource conservation issues into development strategies, plans and programmes;
- avoidance and prevention of harm;
- notification, consultation and negotiation in the case of environmental risk; and,
- emergency notification and co-operation.

The specific provisions of particular treaties are examined in more detail in the paper on legal and institutional mechanisms, but the most important international treaties and treaty organisations for the purposes of this paper are:

- the 1968 African Convention on the Conservation of Nature and Natural Resources;
- the 1972 Convention for the Protection of the World Cultural and Natural Heritage;
- the 1977 Agreement for the Establishment of the Organisation for the Management and Development of the Kagera River Basin;
- the 1987 Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambesi River System;
- the 1973 Convention on International Trade in Endangered Species of Wild Flora and Fauna ("CITES");
- the 1992 Convention on Biological Diversity;
- the 1976 Communaute Economique des Pays des Grands Lacs;
- the 1975 Convention on Wetlands of International Importance Especially as Wildfowl Habitat ("the Ramsar Convention");
- the Committee for Inland Fisheries in Africa;
- the 1995 Agreement on the Preparation of a Tripartite Environmental Management Programme for Lake Victoria;
- the 1995 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region;
- the 1997 Convention on the Law of the Non-navigational Uses of Transboundary Watercourses;
- the Agreement on Migratory Water Birds of Africa-Asia.

Section 8.3.

Article 1(6).

Article 2(3) of the 1992 Liability Protocol.

3. THE LAW OF TRANSBOUNDARY WATERCOURSES

3.1 The Development of International Watercourse Law

The fundamental importance of freshwater supplies to humankind together with the fact that about half of the world's river basins are shared between two or more countries, has lead to the development of a fairly comprehensive body of rules governing international watercourses. Many of these are set out in binding bilateral or regional treaties and useful guidance is to be found in many non-binding instruments prepared by international organisations such as the United Nations Environment Programme (UNEP), the International Law Commission (ILC) of the United Nations, the Organisation for Economic Co-operation and Development (OECD), as well as influential non-governmental organisations such as the International Law Association (ILA). These texts also provide useful guidance as to the emergence and development of customary international law rules in addition to the decisions of the International Court of Justice (ICJ) and international arbitration panels.

The law which has developed has focused mainly on (i) the use of freshwater resources and (ii) their contamination by pollution. The latter is of most relevance to this project. However, it should also be noted that much of the law in this areas was developed around the use of shared rivers rather than lakes.

In the remaining part of this paper, a selection of the most important instruments will be discussed, with a view to highlighting the main principles which have emerged. These instruments are:

- the ILA's non-binding Helsinki Rules on the Uses of the Waters of International Rivers;
- the ILC's draft Articles on the Non-Navigational Uses of International Watercourses;
- the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses.

First, it is useful to consider the concept of an international watercourse.

3.2 International Water Courses: an Integrated Approach

In the context of this paper, "international watercourse" is used to mean a source of water, whether lake, river or ground water, which is shared by two or more countries. This concept is complicated by the question of how that watercourse is defined - does it include the whole water course or drainage basin or simply that body of water which is the shared resource? In the context of Lake Tanganyika this would raise the question of whether it includes the Lake only or the river basins which drain into it as well. The implication of adopting the latter, more inclusive approach is that the watercourse may straddle countries other than the four which border the Lake (eg. Rwanda). From a political point of view it may be more complicated to attempt to include states other than the four lacustrine ones in any management programme which may be agreed upon, but from an ecological point of view it may be desirable that they be included in due course.

In the 1997 Watercourses Convention, "watercourse" is defined as:

"a system of surface waters and ground waters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus" (Article 2);

and "international watercourse" is defined as "a watercourse, parts of which are situated in different states." (Article 2).

The ILA defines an international drainage basin as:

For a fuller discussion of this topic see Birnie and Boyle, p. 215 et seg.

"covering a geographical area extending over two or more states determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus" (Helsinki Rules, Article II).

Although international treaties differ on their approach to this issue, the modern approach appears to be to adopt the broader view. Commentators have noted that "the building block of a freshwater regime should be the drainage basin. It articulates more clearly the interaction between freshwater and the surrounding environment and better explains resulting limitations on the uses each state may make of its resources." They also point out that the drainage basin provides the conceptual basis for a significant number of more recent transboundary freshwater regimes, and that recent policy initiatives pertaining to freshwater management all stress the need for broad-based and integrated approaches.

In Africa the drainage basin approach is widespread and has been specifically endorsed in treaties ratified by each of the lacustrine states. The 1977 Kagera Basin Agreement between Rwanda, Burundi and Tanzania, defined the territorial jurisdiction of the Organisation for the Management and Development of the Kagera River Basin as "the area drained by the Kagera River and its tributaries and sub-tributaries, as shown in the attached map". In addition, the 1987 Zambesi Agreement and the 1995 Protocol on Shared Watercourse Systems in the Southern African Development Community (SADC) Region, to which Zambia and Tanzania are parties, specifically endorse the basin-wide approach to integrated management. It is clear, therefore, that regional practice endorses this approach.

This approach to integrated water resource management was supported in the Declaration of the United Nations Water Conference at Mar Del Plata in 1977 and was also endorsed in Chapter 18 of Agenda 21, which recognises that "the complex interconnectedness of freshwater systems demands that freshwater management be holistic (taking a catchment management approach)..." and calls for the "maintenance of ecosystem integrity, according to a management principle of preserving aquatic ecosystems, including living resources, and of effectively protecting them from any from of degradation on a drainage basin basis." (Section C).

In the European Union, where an entire framework of binding legislation has been developed to protect the region's water resources, this broader approach has also been endorsed, and a recent Directive on Water Policy recognises the need for action "within the river basin thus ensuring an administrative structure which ensures that waters belonging to the same ecological and hydrogeological system are managed as a whole whether such waters are present as ground waters or surface water." The integrated approach is also reflected in the requirement for Member States to establish River Basin Districts and draw up and implement Programmes of Measures within River Basin Management Plans. (Articles 3 and 4).

The effect of adopting an integrated lake basin approach for Lake Tanganyika will be that any agreement may have implications for activities which take place not only on the Lake itself such as direct water pollution from eg oil exploration, but also human activities carried out within the basin but far from the Lake itself, such as overgrazing leading to erosion, etc.

3.3 The ILA Helsinki Rules

The so-called "Helsinki Rules" were drawn up by the International Law Association in 1966, in order to "clarify and restate existing international law as it applies to the rights of states to utilise the waters of an international drainage basin." However, they were drawn up without government comment and can be said to reflect the ILA's understanding of the law in this area rather than a formal international agreement. Nevertheless, the "Rules" are an important

¹⁵ Brunnee and Toope, p. 71.

Other examples of the drainage basin approach can be seen in the Convention on the Protection of the Rhine Against Chemical Pollution (1977) and the Great Lakes Water Quality Agreement (1978), amongst others.

Paragraph 22 of the preamble.

¹⁸ Introduction, p.478.

summary of the ILA's interpretation of international law at that time concerning the use of international drainage basin waters except where otherwise provided by applicable treaty or custom. They provide that each basin state is entitled to "a reasonable and equitable share in the beneficial use" of the waters in accordance with a list of "relevant factors" (Articles III, IV and V). States have a duty to prevent new forms of water pollution or any increase in the degree of existing pollution which would cause "substantial injury" in the territory of other basin states, and to take all reasonable measures to abate existing pollution (Article X). Violation of these duties gives rise to responsibility for the injury caused or requires negotiations to reach an equitable settlement (Article XI).

The ILA later adopted non-binding Rules on Water Pollution in an International Drainage Basin and Rules on International Ground waters.

Although the ILA's work contributed to the development of international law in this field, the Helsinki Rules are now over 30 years old and fail to deal with key issues. Of more significance today are the Draft Articles on the Non-Navigational Uses of International Watercourses developed by the International Law Commission, a United Nations expert body, which formed the basis for the recently adopted the Watercourses Convention.

3.4 The 1997 Watercourses Convention

The Convention on the Law of the Non-navigational Uses of International Watercourses was adopted on May 21 1997¹⁹. It is based on the ILC's 1994 Draft Articles, from which it differs only slightly.

Although it is a referred to as a 'framework' Convention, it differs from framework conventions such as the United Nations Climate Change Convention and the Helsinki Convention on the Protection and Use of Transboundary Watercourses and Lakes. The difference is that whereas the Helsinki Convention lays down minimum standards which are binding on its states parties and obliges them to adapt existing agreements to its requirements, parties to the Watercourses Convention are free to deviate from the provisions of the Convention by agreement if they so wish. Article 3(3) provides that:

"Watercourse states may enter into one or more agreements, hereinafter referred to as "watercourse agreements", which apply and adjust the provisions of the present Convention to the characteristics and uses of a particular international watercourse or part thereof".

Nevertheless, the Convention lays down a series of principles and rules that can serve as guidelines for states sharing international watercourses and drawing up agreements. The most important provisions can be summarised as follows:

3.4.1 General Principles

Equitable and reasonable utilization and participation: Article 5 provides that "watercourse states shall in their respective territories utilize an international watercourse in an equitable and reasonable manner...with a view to attaining optimal and sustainable utilization" of the watercourse.

Factors relevant to equitable and reasonable utilization: Article 6 requires all relevant factors and circumstances to be taken into account in utilizing the watercourse in an equitable and reasonable manner, including:

The Convention was adopted by the General Assembly of the United Nations by 104 votes in favour, 3 against and 26 abstentions. It requires 35 states to ratify, accept, approve or accede to it before it can enter into force (Article 36). Burundi was one of the three countries which voted against the Convention, the effect of which is analogous to Burundi not signing the Convention. Nevertheless, to the extent that the Convention is declaratory of customary international law, the Convention's provisions may still be binding on Burundi.

- (a) geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character;
- (b) the social and economic needs of the watercourse states concerned;
- (c) the population dependent on the watercourse in each watercourse state;
- (d) the effects of the use or uses of the watercourse in one watercourse state on other watercourse states;
- (e) existing and potential uses of the watercourse;
- (f) conservation, protection, development and economy of use of the water resources of the watercourse and the costs of measures taken to that effect;
- (g) the availability of alternatives, of comparable value, to a particular planned or existing use.

The principle of equitable utilization requires a balancing of interests, to accommodate the needs and uses of each state, and it is now widely considered to be an established principle of international law.²⁰ However, Article 10 makes it clear that no one use enjoys inherent priority over another, although "vital human needs" are to be given special regard in case of conflict.

Obligation not to cause significant harm: Article 7 imposes a threshold on tolerable behaviour by providing that "watercourse states shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse states." ²¹

The duty to "take all appropriate measures" is one of due diligence rather than absolute. According to the ILC, this obligation of due diligence is an obligation of conduct and not of result, so for a watercourse state to be in breach of its obligation not to cause significant harm, the harm-causing event must have been brought about by that state's intentional or negligent act or omission. ²²

In the lead-up to the Convention, there was much debate about the relationship between these two fundamental principles - the principle of equitable utilization and the no-harm rule - and which should prevail in the case of conflict. Although this question is still not entirely resolved, the Convention does recognise that a harm-causing use may nevertheless be reasonable and equitable and that a state's use that causes significant harm is not per se a breach of the state's international obligations (although the state must still satisfy the due diligence rule). This is evident from Article 7(2) which states that:

"Where significant harm nevertheless is caused to another watercourse state, the states whose use causes such harm shall, in the absence of agreement to such use, take all appropriate measures, having due regard for the provisions of articles 5 and 6, in consultation with the affected state, to eliminate or mitigate such harm, and where appropriate, to discuss the question of compensation".

However, in its commentary to the 1994 Draft Articles, the ILC states that a "use which causes significant harm to human health and safety is understood to be inherently inequitable and unreasonable".

General Obligation to Cooperate: Article 8 requires states to "cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection of an international watercourse". To facilitate such cooperation, it suggests the establishment of joint mechanisms or commissions, recognising the existence of such mechanisms and commissions already in various regions. (The establishment of joint management institutions is of particular relevance to Lake Tanganyika).

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Birnie and Boyle, p.221

According to rapporteur Schwebel, "significant harm" was intended to mean more than perceptible but less than serious or substantial. Birnie and Boyle, p.232.

Fitzmaurice, p368.

Regular Exchange of Data and Information: The regular exchange of data and information on the condition of the watercourse between watercourse states is required by Article 9, and such states are required to "employ their best efforts" to collect and process such data and information in a manner which facilitates its utilization by the others.

3.4.2 Planned Measures

Part III provides a consultation procedure for planned measures which "may have a significant adverse effect upon other watercourse states". The state planning the measure is required to notify such other states thereof, together with relevant information, including the results of any environmental impact assessment.²³ Alternatively, if a watercourse state has "reasonable grounds" to believe that another watercourse state is planning measures that may have a significant adverse effect on it may request, stating its reasons, that it be notified.

The notified state is given six months (extendable by a further six months at the request of the notified state) in which to reply to the notification, during which time the measure may not be implemented without the former state's consent. If they fail to reply within the six months, the notifying state may proceed with the implementation of the planned measures. If they reply with reasons why the implementation of the measures would be inconsistent with the provisions of Articles 5 (equitable and reasonable utilization and participation) or 7 (obligation not to cause significant harm) then the two states must enter into consultations and negotiations "with a view to arriving at an equitable resolution of the situation." (Article 17).

This procedure is in addition to the requirements, in Article 9, to exchange data and information and, in Article 11, to exchange information and consult each other and, if necessary, negotiate on the possible effects of planned measures on the condition of an international watercourse.

It has been suggested²⁴ that this procedure is weak in several respects including the absence of the following elements:

- (i) an obligation to notify all watercourse states of planned measures, rather than only those which the state planning the measure determines will be significantly adversely affected:
- (ii) legal consequences attached to a failure to notify;
- (iii) significant substantive standards as to the type of information to be submitted by the state planning the measure, despite the list of relevant factors in Article 6 which are to be taken into account in applying the principle of equitable use;
- (iv) a requirement for an environmental impact assessment to be carried out (the duty is merely to provide on any EIA which is carried out);
- (v) an indicative list of the types of measures that would require consultation;
- (vi) a provision that the notified state looses its right to claim compensation if it fails to respond to a notification;
- (vii) an obligation to redress all significant harm which is caused.

These gaps could, however, be filled in any specific agreements drawn up between watercourse states, such as for example an agreement over Lake Tanganyika, in order to encourage states to fully consult with each other in respect of planned measures.

3.4.3 Protection, Preservation and Management

Part IV reflects the emergence of a more comprehensive approach to watercourse pollution, and is in line with state practice as evidenced by various international agreements.

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This reference to EIA was added since the 1994 ILC Draft Articles. It requires that if an EIA is conducted then the information resulting from it is to be provided, but it does not go so far as to actually require an EIA.

E.Hey, Paper presented at Water Conference, Dundee, 11-12 June 1997.

Ecosystem approach: Article 20 endorses the ecosystem approach, requiring watercourse states to "protect and preserve the ecosystems of international watercourses". This is obviously related to, but potentially goes further than, the integrated lake basin approach.

Prevention, reduction and control of pollution: Article 21 requires watercourse states to "prevent, reduce and control the pollution of an international watercourse that may cause significant harm to other watercourse states or to their environment, including harm to human health or safety, to the use of the waters for any beneficial purpose or to the living resources of the watercourse." Pollution of an international watercourse is defined as: "any detrimental alteration in the composition or quality of the waters of an international watercourse which results directly or indirectly from human conduct." (Article 21(1).

States are required to "consult with a view to arriving at mutually agreeable measures and methods to prevent, reduce and control pollution of an international watercourse, such as:

- (a) setting joint water quality objectives and criteria;
- (b) establishing techniques and practices to address pollution from point and non-point sources;
- (c) establishing lists of substances the introduction of which into the waters of an international watercourse is to be prohibited, limited, investigated or monitored."

It is particularly important in fulfilling this wide international obligation that national laws are adopted and enforced to actually prevent, reduce and control pollution.

Introduction of Alien or New Species: Article 22 requires watercourse states to take measures to prevent the introduction of alien or new species into an international watercourse "which may have effects detrimental to the ecosystem of the watercourse resulting in significant harm to other watercourse states".

3.4.4 Settlement of Disputes

Article 33 provides a procedure for the settlement of disputes between parties concerning the interpretation or application of the Convention. This is considered in more detail in the paper on Conflict Resolution, but the main points to note here are that the procedure is non-binding (i.e. it is subject to the agreement of the states involved in the dispute) except for the fact that any party to a dispute may request that it be submitted to an independent fact-finding commission if six months after a request for negotiations, the dispute has not been settled. It may therefore not be particularly helpful in facilitating the settlement of disputes in practice.

3.4.5 Other Provisions

The Convention contains a number of other provisions, the most important of which, for the purposes of this paper, are as follows: Management (Article 24); Installations (Article 26); Prevention and mitigation of harmful conditions (Article 27); Emergency situations (Article 28), (which might be relevant in connection with proposed oil exploration on Lake Tanganyika); Armed Conflict (Article 29); and Non-discrimination (Article 32).²⁵

Article 32 requires states to grant private persons equal access, regardless of nationality or residence, to judicial or other procedures for compensation or other relief for injuries from watercourse-related activities, and includes non-discrimination on the basis of where the damage occurred.

4. SUMMARY OF TRENDS

From the above discussion, it is possible to extract some key features of international environmental law and international watercourse law which to a greater or lesser extent are already binding on the lacustrine states and which will need to be incorporated into any international agreement on Lake Tanganyika. These include:

- application of precautionary principle, polluter pays principle and principle of sustainable development;
- protection and preservation of the ecosystems of the Lake and its drainage basin;
- incorporation of natural resource conservation issues into development strategies, plans and programmes;
- adoption of a wide concept of an international watercourse, allowing the integrated management of the entire drainage basin;
- measures to conserve and manage the watercourse, aimed specifically at the prevention, reduction and control of pollution and the protection and preservation of ecosystems;
- cooperation, consultation and exchange of information (on the state of the watercourse and on the impact of present and planned uses) among states sharing the same drainage basin, primarily through joint management institutions;
- equitable and reasonable utilisation of the watercourse, considering relevant factors;
- limitation of transboundary impact and conduct of environmental impact assessment;
- protection of other states from serious harm, based on a standard of due diligence;
- procedural rights of potentially affected states to information, consultation and negotiation (where the proposed use of a shared watercourse may cause serious injury or significant adverse effects); and,
- notification and cooperation in cases of emergency, to avert harm to other states; and taking of action to prevent, mitigate or neutralise the danger to other states.

5. CONCLUSION

The overlap between international environmental law and international watercourse law is clear from the principles and rules discussed in this paper. Activities which damage an international watercourse are subject to the general principles and rules of international environmental law discussed above, including Principle 2 of the Rio Declaration. However, as Birnie and Boyle conclude:

"While it can be asserted with some confidence that states are no longer free to pollute or otherwise destroy the ecology of a shared watercourse to the detriment of their neighbours or of the marine environment, definitive conclusions concerning the law in this area are more difficult to draw."²⁶

This is due in part to the diversity of watercourse systems and arrangements governing their use, but also, in respect of pollution control and environmental protection, to the relatively recent emergence of much of the state practice which contributes to the development of the law in this area.

International watercourse law was originally concerned solely with the allocation and use of the water resource, but has developed to encompass the pressing requirements of conservation, environmental protection, and sustainable development, to the point where these must now be fundamental considerations underpinning any regime for the management of international watercourses.

²⁶ Birnie and Boyle, p.249.