CONSULTANT REPORT

ENHANCING TRANSBOUNDARY COOPERATION IN WATER MANAGEMENT IN THE PRESPA LAKES BASIN

29 OCTOBER 2008

Dr. Owen McIntyre
Faculty of Law
University College Cork
National University of Ireland

TABLE OF CONTENTS

LEGAL MANDATE OF THE PROPOSED PRESPA WATER MANAGEMENT WORKING GROUP (PWMWG)

As it is currently considered unlikely, at least in the short to medium-term, that trilateral inter-State agreement might be reached on a more formal legal and institutional basis for trilateral cooperation for the Prespa Basin and, as it is envisaged that the proposed Prespa Water Management Working Group (PWMWG) would operate under the aegis of and support the work of the existing Prespa Park Coordination Committee (PPCC), it is necessary briefly to examine the legal mandate of the PPCC, especially in respect of technical cooperation. Notwithstanding the (provisional) conclusions of the Technical Assessment Report[1] prepared by the international legal consultant engaged by UNDP which includes, *inter alia*, a legal analysis of this issue, it is readily apparent that the PPCC does enjoy a *de jure* (formal legal) and *de facto* (based on the factual practice of the littoral States) mandate to pursue effective performance of its stated functions and to establish such subordinate bodies as are necessary for such performance.

1. 2000 Prime Ministerial Declaration

First of all, the Declaration, adopted in 2000 by none other than the Prime Ministers of the three littoral States, acting in their capacities as Heads of Government, places considerable emphasis on the commitment of the States to enhance inter-State cooperation for the purposes of the environmental protection and sustainable development of the Prespa Lakes ecosystem.[2] For example, Paragraph 3 of the Declaration recognises the importance of respecting international instruments aimed at the protection of the natural environment and declares that '[I]ndividual national activities should be complemented by international collaboration in this field'. Paragraph 6 solemnly commits the three littoral States to further cooperative action:

> 'This Declaration will be followed by enhanced cooperation among competent authorities in our countries with regard to environmental matters. In this context, joint actions would be considered in order to
> a) maintain and protect the unique ecological values of the "Prespa Park",
> b) prevent and/or reverse the causes of its habitat degradation,
> c) explore appropriate management methods for the sustainable use of the Prespa Lakes water, and
> d) to spare no efforts so that the "Prespa Park" become and remain a model of its kind as well as an additional reference to the peaceful collaboration among our countries.'

Though the 2000 Declaration might be described as a mere 'policy document', containing only a commitment to consider joint actions and omitting any requirement on the part of the signatory States to adopt national legislation or provide regular funding from State budgets,[3] it remains a normative act of international 'soft' law, which acknowledges the general obligation of States under customary international law to cooperate in the pursuit

[1] S. Bogdanovic, *Technical Assessment Report: Prespa Park Coordination Committee in Transboundary Ecosystem Management* (23 December 2007).
[2] Prime-Ministerial Declaration on the Creation of the Prespa Park and the Environmental Protection and Sustainable Development of the Prespa Lakes and their Surroundings (Aghios Germanos, 2 February 2000)
[3] *Supra*, n. 1, at 27.

Dr. Owen McIntyre
Faculty of Law, University College Cork
National University of Ireland

of environmental protection, and in the protection of shared water resources in particular.[4] It does not follow that because the Declaration contains no specific institutional arrangements for its implementation, it could not serve as the legal basis for establishing a coordination body for that purpose.[5] Similarly, neither the fact that there exists no formal legal designation of 'transboundary park' under international law nor that the geographical scope of the declared Prespa Park, which comprises 'Ramsar Protected Sites' in each littoral State, does not correspond with a more holistic 'drainage basin' or 'ecosystems approach',[6] take away from the duty of the littoral States under international law to cooperate in protecting the Prespa Lakes ecosystem, which they have done since 2000 by means of the PPCC. In support of this conclusion, it is vitally important to understand fully the often understated role and status of such 'soft law' instruments in identifying the acknowledged duties of States, in this case in respect of the obligation to cooperate in good faith in the environmental management and sustainable development of the Prespa Basin.

2. International 'Soft' Law

Notwithstanding the provisions of the 1997 UN Convention on the Non-Navigational Uses of International Watercourses[7] and other conventional provisions expressly concerned with the environmental protection of international watercourses, a number of customary international legal rules and principles can be argued to have developed in recent decades which might be expected to have a role to play in this regard. The existence and, to a lesser degree, the normative status of these rules and principles have largely been defined by 'the progressive gathering of recurrent treaty provisions, recommendations made by international organizations, resolutions adopted at the end of international conferences, and other texts that can be said to have influenced State Practice'.[8] Such rules include the obligation to prevent transboundary pollution and the rules relating to responsibility and liability for such pollution, the obligation to co-operate and the requirement for environmental impact assessment for projects having transboundary effects, while customary principles include the precautionary principle, sustainable development, intergenerational equity and common but differentiated

[4] For example, the UNDP-GEF Project Document, *Integrated Ecosystem Management in the Prespa Lakes Basin of Albania, FYR-Macedonia and Greece* remarks, at para. 155, that

> 'The initiative which led to the Prime Ministers' Declaration was very top-down and the participation of local stakeholders around the lakes basin in this decision was initially very little. And yet, the declaration successfully laid the foundation for the significant transboundary work that has followed.'

This characterisation of the initiative leading to the Declaration as 'top-down' testifies to the Declaration's character as a solemn normative act of the Governments of the littoral States.

[5] See, Bogdanovic, *supra*, n. 1, at 28.

[6] *Ibid.,* at 27.

[7] (1997) 36 *ILM* 719, (New York, 21 May 1997) Not yet in force. (Hereinafter, the 'UN Convention'). However, though the Convention has not entered into force, it is likely to remain highly influential and persuasive as a statement of current customary and general international law on watercourses as it is the culmination of over 20 years of in-depth research by the International Law Commission into the state of international watercourse law and practice. It is also significant that all three littoral States have signed the Convention.

[8] P. M. Dupuy, 'Overview of the Existing Customary Legal Regime Regarding International Pollution', in D. B. Magraw, *International Law and Pollution*, (University of Pennsylvania Press, Philadelphia, 1991), 61 at 61.

responsibility. Other, emerging principles can be identified which may eventually form part of the corpus of relevant customary international environmental law, including the so-called 'ecosystems approach'. The key significance of such rules and principles lies in the fact that, as the accumulated legal expression of environmental protection concerns by the international community, they indicate the issues which are likely to be identified and articulated as central in the environmental protection of international drainage basins and the means by which such issues are likely to be considered. The normative content of the rules and principles of customary and general international law on the environment is likely to inform the interpretation and application of the rules and principles which are set out in outline in the environmental provisions of the 1997 Convention and other relevant instruments. Indeed, it is submitted that it is largely by virtue of the very sophistication and extensive elaboration of these substantive and procedural rules and principles of general international environmental law that environmental considerations are likely to enjoy such prominent status as a factor in determining an equitable regime for the utilisation of shared freshwater resources, pursuant to the cardinal rule of international water resources law – that of 'equitable and reasonable utilisation'. Further, customary international law is likely to continue to play a significant residual role in the settlement of international environmental disputes concerning shared water resources as it may apply to States which are not party to the 1997 Convention or other conventional arrangements or to disputes between States parties which are not covered by the Convention due to the use of reservations. Indeed, before referring the topic of the non-navigational uses of international watercourses to the International Law Commission for codification, the UN General Assembly recognised that, despite the existence of numerous treaties governing the use of particular international rivers, most situations were covered by customary, not conventional, international law.[9]

In recent years, debate has raged over the precise legal status of many international environmental norms and principles which are often assumed to enjoy binding force in customary international law. Taking an examination of actual State behaviour as the basis for determining whether a norm is part of customary law, Bodansky notably concludes that, '[A]ccording to the orthodox account of customary international law, few principles of international environmental law qualify as customary'.[10] Having regard to several purported norms of customary international law, including the prohibition on transboundary harm, the precautionary principle and the duty to notify, he observes that, with the possible exception of the International Law Commission and some work of the International Law Association, legal writers' assertions about customary international law are not based on surveys of State behaviour but on the utilisation of texts produced by States and by non-State actors, such as courts, arbitral panels, intergovernmental and non-governmental organisations and legal scholars.[11] Such texts include cases, statutes, treaties, codifications, resolutions and declarations. Therefore, he characterises these

[9] See, *Survey of International Law*, Working Paper prepared by the Secretary-General in the Light of the Decision of the Commission to Review its Programme of Work, UN Doc. A/CN.4/245 (1971), para. 285, at 141. See further, G. Hafner and H. L. Pearson, 'Environmental Issues in the Work of the International Law Commission', (2000) 11 *Yearbook of International Environmental Law* 3, at 11.

[10] D. Bodansky, 'Customary (and Not So Customary) International Environmental Law, (1995) 3 *Global Legal Studies Journal* 105, at 112. See also, H.E. Chodosh, 'Neither Treaty Nor Custom: The Emergence of Declarative International Law' (1991) 26 *Texas International Law Journal*, 87 and N. C. H. Dunbar, 'The Myth of Customary International Law' (1983) 8 *Australian Yearbook of International Law*.

[11] *Ibid.,* at 113.

norms as 'declarative'[12] rather than customary law but concedes that, while their usefulness may be limited in relation to third-party dispute settlement by courts and arbitral tribunals, such norms have an important role to play in terms of voluntary compliance and in terms of bilateral and multilateral negotiations.[13] Indeed, as courts and arbitral tribunals play, at least as yet,[14] a relatively minor role in the resolution of international environmental disputes, 'declarative' norms of international environmental law can, by exerting a compliance pull on States[15] and, more importantly, by influencing negotiations and other second-party control mechanisms, play a very significant role. Bodansky concludes that

> 'the biggest potential influence of these norms is on second-party control mechanisms. Most international environmental issues are resolved through mechanisms such as negotiations, rather than through third-party dispute settlement or unilateral changes of behaviour. In this second-party control process, international environmental norms can play a significant role by setting the terms of the debate, providing evaluative standards, serving as a basis to criticize other states' actions, and establishing a framework of principles within which negotiations may take place to develop more specific norms, usually in treaties'.[16]

Further, international environmental norms, though declaratory in nature, can be expected to play a significant role in informing the rules and principles contained in the 1997 Convention and other treaty instruments. As Dupuy points out

> 'A number of *guidelines* emitted by these bodies … [international institutions, both intergovernmental and, at a lower stage, non-governmental (*e.g.,* the Institut de Droit Internationale, the International Law Association, and the International Union for Conservation of Nature)] … have penetrated gradually into contemporary State practice. In certain cases, these guidelines bring an important

[12] *Ibid.,* at 116, See also, Chodosh, *supra,* n. 10.
[13] *Ibid.,* at 117-119. See further, M. Ehrmann, 'Procedures of Compliance Control in International Environmental Treaties', (2002) 13 *Colorado Journal of International Environmental Law and Policy*, 377-443. See generally, selected essays in D. Shelton (ed.), *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (OUP, Oxford, 2000), and in particular, A. Kiss, 'The Environment and Natural Resources: Commentary and Conclusions', at 223-242.
[14] Bodansky speculates that '[T]he establishment of an environmental chamber of the International Court of Justice and the recent cases between Nauru and Australia and between Hungary and Slovakia may signal the emergence of a greater judicial role', *ibid.,* at 117. Similarly, Judge Stephen Schwebel has noted that '[A] greater range of international legal fora is likely to mean that more disputes are submitted to international judicial settlement. The more international adjudication there is, the more there is likely to be; the "judicial habit" may stimulate healthy imitation', *Annual Report of the ICJ to the 54th General Assembly*, UN Doc. A/54/PV.39, 26 October 1999, at 3, and that 'increase in recourse to the Court [International Court of Justice] is likely to endure, at any rate if a state of relative détente in international relations endures', *Annual Report of the ICJ to the 53rd General Assembly*, UN Doc. A/53/PV.44, 27 October 1998, at 4. On the background to the establishment of the Environment Chamber of the ICJ and the growing number of environmental cases coming before the Court, see M. Fitzmaurice, 'Environmental Protection and the International Court of Justice', in V. Lowe and M. Fitzmaurice (eds.), *Fifty Years of the International Court of Justice* 293, at 305-314. In relation to the Mediation and Conciliatory Committee of the Organisation of African Unity, see T. O. Elias, 'The Charter of the Organisation of African Unity' (1965) 59 *American Journal of International Law* 243, at 263-264.
[15] See further, T. M. Franck, *The Power of Legitimacy Among Nations*, (1990), at 41-42; M. E. O'Connell, 'Enforcement and the Success of International Environmental Law' (1995) 3 *Indiana Journal of Global Legal Studies*, 47.
[16] *Supra,* n. 10, at 118-119.

> contribution to the definition of international standards on the basis of which the due diligence to be expected from "well-governed" modern States can be established'.[17]

He further concludes that

> 'Soft law [international directives or undertakings that are not, strictly speaking, binding in themselves] must be taken into account in the tentative analysis and interpretation of what is certainly already "hard law", that is, international directives or undertakings that are binding of their own accord under international law'.[18]

More specifically, Dupuy suggests that both trends identified in treaty practice and soft law guidelines defined by international institutions can be taken into consideration 'to define more concretely the material contents of "due diligence"'.[19] Of course, the consistent inclusion of normative rules and principles in the declarations and resolutions of international organisations, and of the United Nations in particular, contributes significantly to the process of custom generation. As Judge Tanaka commented, in his dissenting opinion in the *South West Africa Case (Second Phase)*, in relation to repeated pronouncements in UN resolutions and declarations:

> 'This collective, cumulative and organic process of custom generation can be characterised as the middle way between legislation by convention and the traditional process of custom making and can be seen to have an important role from the viewpoint of development of international law'.[20]

This process might be expected to have made a particularly significant contribution to the development of international environmental law where the use of soft law declaratory instruments has been so widespread. Also, though some prominent commentators have maintained that, in relation to the formation of custom, 'what states do is more important than what they say',[21] others, notably Akehurst, criticise this distinction between the 'material components' and other 'elements' of 'practice', noting that 'it is artificial to try to distinguish between what a state does and what it says'.[22] Indeed, Hohmann notes that, like 'no other area of international law, [international environmental law] is influenced by such a multitude of guidelines, resolutions and other declarations', the grouping of which documents 'in the category of soft law (in contrast to hard law) does not do justice to the peculiarities of modern ways of making international environmental law'.[23] He takes the view that for the purpose of identifying customary law, State practice may be reduced to diplomatic practice where the following three criteria are fulfilled:

(i) 'the values at the basis of the resolutions concerned are shared by all States –and all States see the need to establish the legal rule quickly;

[17] *Supra,* n. 8, at 61.
[18] *Ibid.,* at 62.
[19] *Ibid.,* at 69.
[20] (1966) ICJ Rep. 248, at 292.
[21] S. M. Schwebel, 'The Effect of Resolutions of the U.N. General Assembly on Customary International Law, (1979) *Proceedings of the American Society of International Law*, at 304. See, in support of this view, A. A. d'Amato, *The Concept of Custom in International Law*, (New York, 1971), at 88-91. See generally, H. Meijers, 'On International Customary Law in the Netherlands' in I. F. Dekker and H. H. G. Post (eds.), *On The Foundations and Sources of International Law* (T.M.C. Asser Press, The Hague, 2003) 77, at 83-84.
[22] M. Akehurst, 'Custom as a Source of International Law' (1974-75) 47 *British Yearbook of International Law*, at 3.
[23] H. Hohmann, *Precautionary Legal Duties and Principles of Modern International Environmental Law* (Graham & Trotman, London, 1994), at 335.

(ii) there must be an absence of pre-existing customary law to be displaced; and
(iii) there should be limited evidence of (external) State practice.'[24]

Hohmann sees the primary role of soft-law instruments in the identification of custom as that of 'the solidifying of indicators for a documentation of the *opinio juris*' of States.[25] However, he also points out that

> 'the establishment of duties of customary law has also occurred through agreements … if indications exist for the formation of *opinio juris*, if an agreement adopts this rule, if the rule can be generalized and if it is contained in a global agreement or in at least two regional agreements of two different regions'.[26]

Therefore, 'rules of customary law initiated through declarations find their way into agreements and vice versa'.[27]

Therefore, the solemn adoption of a 'declarative' instrument by the three Prime Ministers of the three Prespa littoral States formally acknowledging the need for the States to cooperate in the environmental protection and sustainable development of the Prespa Lakes ecosystem is of considerable legal significance as evidence of the *opinion juris* (an opinion of law or necessity) required in order for each State to be bound by the basic requirements of the duty to cooperate.

At any rate, the single most important source of rules and principles that may have crystallised into generally binding norms of customary international environmental law is the accumulated corpus of relevant multilateral and bilateral treaty provisions. As Sir Robert Jennings declared in a statement made to the United Nations Conference on Environment and Development, it is

> 'a principal task of the ICJ to decide, applying well-established rules and criteria, whether the provisions of multilateral treaties have or have not developed from merely contractual rules into rules of general customary international law'.[28]

Of course, the consistent inclusion of a provision of a particular normative character in bilateral treaties also provides significant evidence of acceptance of a rule in international law. In relation to shared water resources in particular, by 1963 a UN publication[29] had listed 253 treaties on non-navigational uses of international rivers and in 1974 another UN document identified a further 52 bilateral and multilateral agreements that had been concluded in the intervening period.[30] Clearly, this reservoir of treaty practice has greatly assisted the International Law Commission in the elaboration of the 1994 Draft Articles which formed the basis of the 1997 Convention and led State actors and

[24] *Ibid.*
[25] *Ibid.,* at 336.
[26] *Ibid.,* at 337.
[27] *Ibid.*
[28] The text of the statement is reproduced in R. Jennings, 'Need for Environmental Court?', (1992) 22(5/6) *Environmental Policy and Law* 312, at 313, and in (1992) 1 *Review of European Community and International Environmental Law* 240, quoted in M. Fitzmaurice, *supra,* n. 14, at 300.
[29] *UN Legislative Series, Legislative Texts and Treaty Provisions Concerning the Utilization of International Rivers for Other Purposes than Navigation,* UN Doc. ST/LEG/LER.B/12. See C. O. Okidi, 'Preservation and Protection Under the 1991 ILC Draft Articles on the Law of International Watercourses' (1992) 3 *Colorado Journal of International Environmental Law and Policy* 143, at 144.
[30] *Legal Problems Relating to the Non-Navigational Uses of International Watercourses,* UN Doc. A/CN.4/274, prepared during the 26th session of the ILC, and reproduced in [1974] 1 *Yearbook of the International Law Commission*. See Okidi, *ibid.*

intergovernmental bodies to argue that there are principles of international law which can be applied to the preservation and environmental protection of international watercourses in the absence of bilateral and multilateral agreements.[31] In turn, the inclusion of certain rules and principles in the ILC's Draft Articles, and subsequently in the Convention, must greatly enhance their status as established or emerging rules of general customary law, particularly in light of the ILC's particular function within the UN system and the cautious approach taken to its role of progressive development of international law, tempered by the constraints imposed by the reality of international State practice.[32]

It is significant in the case of the Prespa Lakes that all three littoral States have signed the 1997 U.N. Watercourses Convention and that Albania and Greece have ratified the 1992 U.N.E.C.E. Helsinki Convention,[33] both of which place very considerable emphasis on the duty of States to cooperate in the management and protection of shared international water resources. In addition, all three littoral States have ratified a range of binding multilateral treaty instruments committing States parties to cooperate in the protection of, *inter alia*, wetlands, migratory species, biological diversity, and cultural and natural heritage,[34] as well as international instruments requiring application of a range of horizontal procedural measures for environmental protection,[35] which by definition assume a high degree of effective transboundary cooperation.

3. General Duty to Cooperate under Customary International Law

(a) Duty to Prevent Transboundary Harm

Two of the most widely accepted rules of international law, and of international environmental and natural resources law in particular, are those requiring that States act to prevent significant transboundary harm and, in order to meet the due diligence requirements of this duty, that States actively cooperate in good faith to prevent such harm. Dupuy describes the obligation to prevent or abate substantial damage from transfrontier pollution, or a significant risk of causing substantial damage, as 'well-established'.[36] Further, 'on the basis of a broad comparison of treaty law, international resolutions, and regional practice' he articulates the rule as providing that

[31] This argument was urged in the recommendations of the 1977 United Nations Water Conference held at Mar del Plata, Argentina. See *Report of the United Nations Water Conference*, UN Doc. E/CONF.70/29, at 115. See further, Okidi, *ibid.*, at 159.
[32] See further, J. Brunée and S. J. Toope, 'Environmental Security and Freshwater Resources: A Case for International Ecosystem Law' (1994) 5 *Yearbook of International Environmental Law* 41, at 58
[33] U.N.E.C.E. Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992)
[34] U.N.Convention on Wetlands of International Importance (Ramsar, 1971); UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972); U.N. Convention on Migratory Species and Wild Animals (Bonn, 1979); Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 1979); U.N. Convention on Biological Diversity (Rio de Janeiro, 1992).
[35] U.N.E.C.E. Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991), and Protocol on Strategic Environmental assessment (Kiev, 2003); Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental matters (Aarhus, 1998), and Protocol on Pollutant Release and Transfer Registers (Kiev, 2003) [Greece and FYR on Macedonia]
[36] *Supra,* n. 8, at 63.

> '[I]n the exercise of their sovereign rights to exploit and use, pursuant to their development policies, their natural resources, States shall take into account the impact of actual or anticipated activities in areas placed under their jurisdiction on the environment situated beyond their frontiers. They shall take in good faith and with all due diligence, appropriate measures to prevent transfrontier pollution by elaborating, in particular, rules and procedures adapted to the requirements of the protection of the environment, and see to it that these are effectively applied'.[37]

Numerous commentators conclude that this obligation has entered the realm of customary international law.[38] Notable examples include Wolfrum who asserts that '[T]here is agreement in international law that, in general, transfrontier damage is prohibited. This prohibition has essentially been developed under customary international law'.[39] Similarly, in 1992, Birnie and Boyle could conclude that

> '[I]t is beyond serious argument that states are required by international law to take adequate steps to control and regulate sources of serious global environmental pollution or transboundary harm within their territory or subject to their jurisdiction. This is a principle of harm prevention, not merely a basis for reparation after the event, although in its judicial applications it has usually taken the latter form'.[40]

The same authors have subsequently elaborated on the legal status and substantive content of this principle, stating that

> 'Two propositions enjoy significant support in state practice, judicial decisions, the pronouncements of international organizations, and the work of the International Law Commission and can be regarded as customary international law, or in certain aspects as general principles of law:
> (i) that states have a duty to prevent, reduce, and control pollution and environmental harm, and
> (ii) a duty to co-operate in mitigating environmental risks and emergencies through notification, consultation, negotiation, and in appropriate cases, environmental impact assessment'.[41]

The OECD provides a commonly accepted definition of 'transfrontier pollution' which is taken to refer to

> 'any intentional or unintentional pollution whose physical origin is subject to, and situated wholly or in part within the area under, the national jurisdiction of one

[37] *Ibid.*
[38] See, *inter alia*, A Kiss and D. Shelton, *International Environmental Law* (1991), at 130; P. Sands, *Principles of International Environmental Law* (1995), at 190; E. B. Weiss, S. C. McCaffrey, D. B. Magraw, P. C. Szasz and R. E. Lutz, *International Environmental Law and Policy* (1998), at 317; D. Hunter, J. Salzman and D. Zaelke, *International Environmental Law and Policy* (1998), at 345; D. Wirth, 'The Rio Declaration on Environment and Development:Two Steps Forward and One Back, or Vice Versa?', (1995) 29 *Georgia Law Review* 599, at 620.
[39] R. Wolfrum, 'Purposes and Principles of International Environmental Law' (1990) 33 *German Yearbook of International Law*, 308, at 309.
[40] P. Birnie and A. Boyle, *International Law and the Environment*, (O.U.P., Oxford, 1992), at 89.
[41] P. Birnie and A. Boyle, *International Law and the Environment*, (2nd Ed.) (O.U.P., Oxford, 2002), at 104-105. Interestingly, Dupuy also links practical implementation of the obligation to prevent transboundary pollution with the introduction of procedures for environmental impact assessment, *supra,* n. 1, at 66-68, see *infra.*

> State and which has effects in the area under the national jurisdiction of another State'.[42]

More recent articulations of the concept tend to include effects in areas beyond national jurisdictions.[43] 'Pollution' is in turn defined as

> 'the introduction by man, directly or indirectly, of substances or energy into the environment resulting in deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems, impair amenities or interfere with other legitimate uses of the environment'.[44]

The principle is commonly expressed as a application of the maxim *sic utere tuo, ut alienum non laedas* and its emergence can be traced to the decision of the arbitral tribunal in the *Trail Smelter* arbitration which provides that

> 'No State has the right to us or permit the use of its territory in such a manner as to cause injury … in or to the territory of another or of the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence'.[45]

The principle was confirmed in the *Corfu Channel* case where the ICJ, though not dealing with transboundary pollution, enunciated the general principle that a State may not knowingly allow its territory to be used to injure another State.[46] The court expressly proclaimed 'the obligation of every State not to allow its territory to be used for acts contrary to the rights of other States'.[47] In the *Lac Lanoux* arbitration,[48] which involved a dispute between Spain and France over proposals to construct a dam on an international watercourse, the Tribunal stated *obiter* that 'there is a rule prohibiting the upper riparian State from altering the waters of a river in circumstances calculated to do serious injury to the lower riparian State'.[49] More recently, in the *Advisory Opinion on the Legality or Threat of Use of Nuclear Weapons*, the ICJ has held that the general obligation to prevent, reduce and control transboundary environmental harm is 'now part of the corpus of international law relating to the environment'.[50] Earlier, in the *Request for an Examination of the Situation*, concerning French underground nuclear tests, though the ICJ found that it had no jurisdiction, the separate opinions of Judges Weeramantry and Koroma would appear to accept that international law requires States not to cause or permit serious damage in accordance with Principle 21 of the 1972 Stockholm

[42] OECD Resolution C(77)28 (17 May, 1977). See, OECD, *OECD and the Environment* (1986), at 151.
[43] It is interesting to note that, for the purposes of international Liability for transboundary harm, the set of eight draft principles recently adopted by the International Law Commission restrict the concept of transboundary harm to include only 'loss to persons, property, including the elements of State patrimony and natural heritage, and the environment *within national jurisdiction*', see P. S. Rao, 'International Liability for Transboundary harm', (2004) 34/6 *Environmental Policy and Law* 224, at 226 (emphasis added). For the text and commentaries of the 2004 draft principles on international liability in case of loss from transboundary harm arising out of hazardous activities, see *Report of the International Law Commission,* UNGAOR, Fifty-ninth session (2004), A/59/10, Ch. VII, paras. 158-176.
[44] *Ibid.*
[45] *U.S. v. Canada*, 3 R.I.A.A., (1941), at 1965. Though Bodansky is quick to point out that this decision is merely one of an arbitration panel and that 'after more than fifty years [it] is still the only case in which a state was held internationally responsible for causing transboundary harm', *supra,* n. 10, at 114.
[46] *U.K. v. Albania*, I.C.J. Rep. (1949) 4.
[47] *Ibid.* at 22.
[48] *Lac Lanoux Arbitration (France v. Spain)*, award of 16 Nov. 1957, 12 R.I.A.A. 281.
[49] See, (1974) *Yearbook of the International Law Commission,* vol. 2, part 2, 194, at 197, para 1065.
[50] (1996) ICJ Rep. 226, at para. 29.

Declaration.[51] Most recently, in the *Case Concerning the Gabčíkovo-Nagymaros Project*, the Court accepted that grave and imminent danger to the environment could constitute a state of ecological necessity which could provide a ground for the termination of a treaty, thereby lending indirect support to the existence of a general obligation to prevent transboundary environmental harm.[52] Birnie and Boyle conclude that, though

> '[T]he Court's environmental jurisprudence is not extensive … its judgements affirm the existence of a legal obligation to prevent transboundary harm, to co-operate in the management of environmental risks, to utilize resources equitably and, albeit less certainly, to carry out environmental impact assessment and monitoring.'[53]

The principle has long been accepted by the international community and is supported in numerous influential declarations and resolutions. Most notably, Principle 21 of the Stockholm Declaration, adopted by the 1972 United Nations Convention on the Human Environment, provides that

> 'States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction'.[54]

The rule, as stated in Principle 21, has been reaffirmed in a wide variety of international instruments adopted by global and regional interstate bodies. Examples include, the United Nations General Assembly's 1973 Resolution on Co-operation in the Field of Environment Concerning Natural Resources Shared by Two or More States[55] and 1974 Resolution proclaiming the Charter of Economic Rights and Duties,[56] the 1974 OECD Recommendations on the Control of Eutrophication of Waters,[57] on Strategies for Specific Pollutants Control[58] and on Transfrontier Pollution,[59] the 1975 Final Act of the Conference on Security and Co-operation in Europe,[60] Principle 3 of the 1978 UNEP Principles of Conduct in the Field of the Environment Concerning Resources Shared by Two or More States,[61] and Articles 10 and 11 of the 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources.[62] Significantly, the 1975 Helsinki Final

[51] *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in Nuclear Tests [New Zealand v. France],* Order 22 IX 95, ICJ Rep. (1995) 288. See Birnie and Boyle, *supra,* n. 41, at 107. Re Principle 21, see *infra.*

[52] I.C.J. Rep. (1997) 7. See further, "Symposium", (1997) 8 *Yearbook of International Environmental Law*, 3-50; O. McIntyre, "Environmental Protection of International Rivers", Case Analysis of the ICJ Judgment in the Case concerning the Gabcikovo-Nagymaros Project (Hungary / Slovakia), (1998) 10 *Journal of Environmental Law*, 79-91.

[53] *Supra,* n. 41, at 108.

[54] *Report of the United Nations Conference on the Human Environment*, (Stockholm, June 5-16, 1972), part I, chapter I, reprinted in 11 *ILM* 1416 (1972).

[55] UNGA Res. 3129 (XXVIII), U.N. GAOR Supp. (no. 30A), U.N. Doc. A/9030/Add.1 (1973).

[56] UNGA Res. 3281, 29 U.N. GAOR Supp. (No. 31), at 50, U.N. Doc. A/9631 (1975), reprinted in 14 *ILM* 251 (1975).

[57] OECD Council Recommendation C(74)220, reprinted in OECD, *OECD and the Environment* (1986), at 44-45.

[58] OECD Council Recommendation C(74)221, reprinted *ibid.*

[59] OECD Council Recommendation C(74)224, reprinted *ibid.*

[60] 14 *ILM* 1292 (1975).

[61] UNEP/IG/12/2 (1978).

[62] (1985) 15 *Environmental Policy and Law*, at 64.

Act of the Conference on Security and Co-operation in Europe (CSCE),[63] which later gave rise to the Organisation for Security and Cooperation in Europe (OSCE)[64] and includes all European States and all former Soviet States in the Caucasus and Central Asia as well as the U.S. and Canada, states in its Preamble

> 'Acknowledging that each of the participating states, *in accordance with the principles of international law*, ought to ensure, in a spirit of co-operation, that activities carried out on its territory do not cause degradation of the environment in another state or in areas lying beyond the limits of national jurisdiction'.[65]

The 'no harm' rule has been included in codifications of international law, such as the International Law Association's Montreal Rules of International Law Applicable to Transfrontier Pollution, Article 3(1) of which provides that '[S]tates are in their legitimate activities under an obligation to prevent, abate, and control transfrontier pollution to such an extent that no substantial injury is caused in the territory of another State'.[66] Similarly, the rule has been included in a number of normative environmental treaty regimes, most notably by means of Articles 194(2) of the 1982 U.N. Convention on the Law of the Sea which requires that '[S]tates shall take all measures necessary to ensure that activities under their jurisdiction or control are conducted so as not to cause damage by pollution to other States and their environment'.[67] Other treaty instruments incorporating the principle include the 1992 Espoo Convention on the Transboundary Effects of Industrial Accidents.[68]

The principle has been confirmed by Principle 2 of the Rio Declaration which restates Stockholm Principle 21 except in that it alludes to States' 'own environmental *and developmental* policies'.[69] In relation to this modification, Sands concludes that '[T]he introduction of these words may even expand the scope of the responsibility not to cause environmental damage to apply to national developmental policies as well as national environmental policies'[70] while Birnie and Boyle suggest that it does no more than 'confirm an existing and necessary reconciliation with the principle of sustainable development and the sovereignty of states over their own natural resources'.[71] In this form, the rule has been included in the provisions of various treaties arising from the Rio process, for example Article 3 of the Convention on Biological Diversity[72] and the preamble to the Framework Convention on Climate Change.[73] It has also played an influential role in the post-Rio development of international environmental law, for

[63] *Supra,* n. 60.
[64] The CSCE was formally constituted by the 1990 Charter of Paris, 30 *ILM* (1991), 193 and changed its name to the OSCE in 1994. See further, P. Sands and P. Klein, *Bowett's Law of International Institutions* (Sweet & Maxwell, London, 2001), at 199-201.
[65] Emphasis added.
[66] International Law Association, *Report of the 60th Conference* (1982), at 1-3.
[67] 21 *ILM* (1982) 1261. See also, Article 192(2).
[68] 31 *ILM* (1992) 1333.
[69] *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev.1 (1992), 31 *ILM* 876. Emphasis added.
[70] P. Sands, Principles of International Environmental Law (Manchester University Press, 1995), at 50.
[71] *Supra,* n. 41, at 110.
[72] 31 *ILM* (1992) 818.
[73] 31 *ILM* (1992) 851.

example in the Nuuk Declaration on Environment and Development in the Arctic[74] and the 1994 Convention to Combat Desertification.[75] It is clear that, at least as regards later formulations of the 'no harm' principle, it applies to all areas beyond which the State in question exercises sovereign jurisdiction and so operates to extend protection to the so-called 'global commons' such as the high seas, the deep seabed, outer space or the global climate.[76]

Despite the overwhelming support in State and treaty practice and international soft-law instruments for the existence in customary law of an obligation to prevent transboundary harm, and the characterisation of this obligation as the 'cornerstone of international environmental law',[77] some commentators remain sceptical. Knox, for example, insists that Stockholm Principle 21 'has the problem – an uncomfortable one, for a would-be principle of customary international law – that it does not seem to enjoy the necessary support in state practice'.[78] He cites Schachter's observation that '[T]o say that a state has no right to injure the environment of another seems quixotic in the face of the great variety of transboundary environmental harms that occur every day'.[79] Indeed, Knox is so implacably convinced that the general prohibition of transboundary harm does not enjoy customary status that he refuses to regard the emergence of legal requirements for transboundary environmental impact assessment (EIA) as a requirement of or means of giving effect to this rule, and instead views transboundary EIA as an outgrowth of rules requiring domestic EIA and as a consequence of the principle of non-discrimination.[80] However, this view fails to take adequate account of the fact that few who support the status of this obligation as a rule of customary international law would argue that it prohibits all transboundary harm.[81] It is widely understood that this rule applies subject to two considerable limitations. First, the harm or potential harm involved must exceed the threshold of 'significant' or 'substantial' harm in order to come within the ambit of the prohibition.[82] This position is supported by, *inter alia,* the WCED Experts Group on Environmental Law,[83] the International Law Association[84] and United States practice.[85]

[74] (1993) 4 *Yearbook of International Environmental Law,* 687. See D. Rothwell, 'The Arctic Environmental Protection Strategy and International Environmental Co-operation in the Far North' (1995) 6 *Yearbook of International Environmental Law,* 65.
[75] 33 *ILM* (1994) 1016.
[76] See, for example, UNGA Res. 2995 XXVII (1972), the Preamble to the 1975 CSCE Final Act, *supra,* n. 60, and Article 194(2) of the 1982 United Nations Convention on the Law of the Sea, *supra*, n. 67.
[77] See Sands, *supra,* n. 70, at 186 and E. B. Weiss, S. C. McCaffrey, D. B. Magraw, P. C. Szasz and R. E. Lutz, *International Environmental Law and Policy* (1998), at 316.
[78] J. H. Knox, 'The Myth and Reality of Transboundary Environmental Impact Assessment' (2002) 96 *American Journal of International Law* 291, at 293. See also, Bodansky, *supra,* n. 10, at 110-111.
[79] O. Schachter, 'The Emergence of International Environmental Law' (1991) 44 *Journal of International Affairs* 457, at 463.
[80] *Supra*, n. 78.
[81] For an example of one of the very few commentators who continue to argue that the prohibition applies to all transboundary harm, see S. E. Gaines, 'Taking Responsibility for Transboundary Environmental Effects' (1991) 14 *Hastings International and Comparative Law Review* 781, at796-797.
[82] See K. Sachariew, 'The Definition of Thresholds of Tolerance for Transboundary Environmental Injury Under International Law: Development and Present Status' (1990) 37 *Netherlands International Law Review* 193, at 196.
[83] Experts Group on Environmental Law of the World Commission on Environment and Development, *Environmental Protection and Sustainable Development: Legal Principles and Recommendations*, (1987) (Article 10), at 75. Reprinted in J. Lammers and R. D. Munro (Eds.), *Environmental Protection and Sustainable Development: Legal Principles and Recommendations Adopted by the Experts Group on*

Second, the prohibition is normally understood as reflecting an obligation as to performance, based on standards of 'due diligence', rather than an absolute obligation as to result.[86] Though there may remain some uncertainty in relation to the exact meaning of 'significant' or 'substantial' harm[87] and in relation to the types of harm which might be included,[88] such uncertainty does not necessarily detract from the legitimacy of the rule. Indeed, Principle 22 of the Stockholm declaration expressly obliges States to act to remedy such uncertainty, by providing that

> 'States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction'.[89]

This exhortation is repeated as Principle 13 of the Rio Declaration which further requires States to act 'in an expeditious and more determined manner' in developing international law in this area.[90]

As regards State practice relating specifically to international watercourses, numerous bilateral and multilateral treaties incorporate some form of general obligation of prevention of substantial transfrontier environmental harm.[91] For example, Article 58(2)(e) of the 1960 Frontier Treaty concluded between the Federal Republic of Germany and the Netherlands provides that

> 'The contracting parties … shall take or support … all measures required …
> (e) to prevent such excessive pollution of the boundary waters as may substantially impair the customary use of the waters by the neighbouring State'.[92]

Further examples include the 1964 Agreement concerning Frontier Watercourses concluded between Finland and the U.S.S.R. and the 1973 Agreement between Mexico and the United States concerning the Permanent and Definitive Solution to the

---

Environmental Law of the World Commission on Environment and Development (London, 1986). The Experts' Group was established to prepare legal principles which ought to be in place now, or before the year 2000, to support environmental protection and sustainable development within and among all States, *ibid.,* at 7.

[84] *Supra,* n. 66, Article 3(1).

[85] *Restatement (Third) of the Foreign relations Law of the United States* (1987), para. 601.

[86] See further, A. E. Boyle, 'State Responsibility and International Liability for Injurious Consequences of Acts Not Prohibited by International Law' (1990) 39 *International and Comparative Law* Quarterly 1, at 14-15; R. Pisillo-Mazzeschi, 'Forms of International Responsibility for Environmental Harm', in F. Francioni and T. Scovazzi (eds.), *International Responsibility for Environmental* Harm (1991) 15, at 24; G. Handl, 'National Uses of Transboundary Air Resources: The International Entitlement Issue. Reconsidered', (1986) 26 *Natural Resources Journal* 405, at 429.

[87] For example, 'substantial' and 'significant' harm may not be interchangeable. See S. E. Gaines, *supra,* n. 81, at 796, who suggests that '[I]n both domestic American usage and international law, the term "substantial" connotes a magnitude of harm that is a quantum step greater than merely "not significant"'.

[88] Contrast, for example, Handl, who asserts that material damage rather than 'moral injury' is necessary for State responsibility for environmental harm, and Rubin, who suggests that State responsibility for transboundary pollution should include intangible injury. See G. Handl, 'Territorial Sovereignty and the Problem of Transnational Pollution', (1975) 69 *American Journal of International Law* 50, at 75 and A. P. Rubin, 'Pollution by Analogy: The *Trail Smelter* Arbitration', (1971) 50 *Oregon Law Review* 259, at 273-274. See further, Knox, *supra*, n. 78, at 294.

[89] *Supra,* n. 54.

[90] *Supra,* n. 69.

[91] See generally, Dupuy, *supra,* n. 8, at 65.

[92] 508 *UNTS* 14.

International Problem of the Salinity of the Colorado River[93] and the 1983 U.S.- Mexico Agreement for Co-operation on Environmental Programs and Transboundary Problems.[94] In addition, Dupuy notes that in the course of several interstate disputes concerning pollution of shared waters States have taken care to refer expressly to the legal value of this principle and to explain that their behaviour did not amount to a violation. He notes that this respect for the principle explains the 'attitude both of Brazil in relation with Argentina in the Itaipu barrage affair and, even more, of India in the context of its difficulties with Bangladesh relating to the diversion of a part of the Ganges waters …'.[95]

In practical terms, the requirement that States exercise 'due diligence' in relation to activities which might cause significant harm to areas beyond their national jurisdiction is central to implementation of the 'no harm' rule. At its simplest, due diligence requires that States introduce legislative and administrative controls to ensure that such harm is prevented, mitigated or reduced and, though such a standard of conduct may conveniently allow for flexibility, Birnie and Boyle point out that it can be lent a measure of 'concrete content and predictability' by looking to internationally agreed minimum standards as set out in treaties or in the resolutions and decisions of international bodies.[96] Examples of such 'eco-standards' include those set out in the annexes to the 1973 MARPOL Convention[97] and the 1972 London Dumping Convention[98] which are both referred to and effectively incorporated by the 1982 UNCLOS. Equally, the due diligence standard may be understood by reference to the constantly evolving standards of 'best available technology'(BAT), 'best available technology not entailing excessive cost' (BATNEEC), 'best practicable means'(BPM), or 'best practicable environmental option' (BPEO).[99] Interestingly, due diligence requirements often permit special allowance to be made for developing countries in determining their precise legal obligations[100] and so this approach can be used to give practical effect to the emerging principle of 'common but differentiated responsibility'.[101] The ILC's draft Convention on the Prevention of Transboundary Harm provides useful and authoritative guidance on the substantive content of the requirement to exercise due diligence, identifying four key elements:

(i) 'taking all appropriate measures to prevent and minimise the risk;

(ii) co-operation for this purpose with other States and competent international organisations;

[93] 12 *ILM* (1973) 1105.
[94] 22 *ILM* (1983) 1025.
[95] *Supra*, n. 8, at 66. See further, P-M Dupuy, 'La Gestion concertée des resources naturelles: á propos du différend entre le Brésil et l'Argentine relatif au barrage d'Itaipu' [1978] 24 *Annuaire Français de Droit International* 866.
[96] *Supra,* n. 41, at 112-113.
[97] 12 *ILM* (1973) 1319.
[98] 11 *ILM* (1972) 1294.
[99] Examples include Article 4(3) of the 1974 Paris Convention for the Prevention of Marine Pollution from Land-Based Sources, 13 *ILM* (1974) 352, pursuant to which BAT standards have been adopted by the Paris Commission, and Article 6 of the 1979 Geneva Convention on Long-Range Transboundary Air Pollution, 18 *ILM* (1979) 1442.
[100] For example, Article 2 of the 1972 London Dumping Convention requires State parties to take effective measures 'according to their scientific, technical and economic capabilities'.
[101] The view that special allowance is to made for developing countries in determining the content of their legal obligations is reflected in Principle 23 of the Stockholm Declaration and in Principles 6, 7 and 11 of the Rio Declaration as well as in the Ozone Protocol and the Conventions on Climate Change and Biological Diversity. See Birnie and Boyle, *supra,* n. 41, at 112.

(iii) implementation through necessary legislative, administrative, or other action, including monitoring mechanisms;
(iv) a system of prior authorisation for all relevant activities or major changes thereto, based on prior assessment of the possible transboundary harm.'[102]

In relation to this formulation of the due diligence requirement, Birnie and Boyle confidently conclude that

'there is ample authority in treaties, case law and state practice for regarding these provisions of the Commission's draft convention as a codification of existing international law. They represent the minimum standard required of states when managing transboundary risks and giving effect to Principle 2 of the Rio Declaration'.[103]

At any rate, it is clear that the obligation to prevent transboundary harm cannot be divorced from a number of associated obligations, such as those relating to co-operation and, in respect of major development projects, environmental impact assessment, through which the no-harm rule may be enforced and to which the no-harm rule lends enhanced normative status.

Consistent with Article 7 of the U.N. watercourses Convention, the prohibition in Article 21(2) is based on the standard of 'due diligence'. In 1988, Special Rapporteur McCaffrey canvassed the relevant state practice, the work of the International Law Institute and the writings of leading publicists to convince the Commission that the due diligence standard had broad support.[104] According to the Special Rapporteur, under this standard

'a watercourse State would be internationally responsible for appreciable [now significant] pollution harm to another watercourse State only if it had failed to exercise due diligence to prevent harm. In other words the harm must be the result of a failure to fulfil the obligation of prevention.'[105]

A similar approach to the obligation to prevent transboundary harm was adopted by the ILA in its 1982 Montreal Rules on Water Pollution in an International Drainage Basin, Article 1(c) of which obliges States to 'attempt to further reduce any water pollution to the lowest level that is practicable and reasonable under the circumstances'.[106]

Article 21(2) further obliges watercourse States to 'take steps to harmonize their policies' in relation to the prevention, reduction and control of pollution of an international watercourse and aims to avoid conflicts from arising due to divergent national policies and standards. The 1991 commentary actually explains that this obligation does not require States to formulate and apply identical policies, but to work together in good faith to achieve and maintain such harmonisation as is necessary to avoid the likelihood of conflicts arising.[107] This obligation is supported by State practice. For example, Article 194 of the 1982 UNCLOS contains a very similar provision. In order to facilitate this

[102] *Report of the International Law Commission* (2001) GAOR A/56/10, Articles 3-7. See further, A. Boyle and D. Freestone (eds.), *Sustainable Development and International Law* (OUP, Oxford, 1999), Ch. 4. See also, Birnie and Boyle, *ibid.*, at 113.
[103] *Ibid.*
[104] See generally, [1988] 1 *Yearbook of the International Law Commission*, at 121-164.
[105] *Ibid.,* at 164.
[106] International Law Association, *Report of the Sixtieth (Montreal) Conference*, (1982), at 535.
[107] *Draft Articles on the Non-navigational Uses of International Watercourses and Commentaries Thereto, Provisionally adopted on First Reading by the International Law commission at its Forty-Third Session* (1991), at 143.

process of bilateral or regional harmonisation, Article 21(3) requires watercourse States to consult '… at the request of any of them … with a view to arriving at mutually agreeable measures and methods to prevent, reduce and control pollution of an international watercourse …'. Such measures and methods are to include, *inter alia*:

(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 and monitored.

There is well-established State practice for the drawing up of lists of toxic substances and, at the ILC's fortieth session in 1988, the Special Rapporteur drew attention to the list of environmentally harmful chemical substances and the definition of 'hazardous wastes' prepared by the UNEP.[108] The Special Rapporteur further suggested that:

> 'It might be possible to stipulate that the lists be drawn up in accordance with internationally accepted standards, such as those contained in the 1973 and 1978 MARPOL Conventions and in the 1974 Paris Convention on the Prevention of Marine Pollution from Land-based Sources'[109]

He also suggested, as an alternative approach, a provision based on model principle 8(d) of the set of principles adopted in 1987 by the UNECE on co-operation in the field of transboundary waters.[110] Model principle 8(d) provides:

> 'In the prevention and control of transboundary water pollution, special attention should be paid to hazardous substances, especially those which are toxic, persistent and bioaccumulative, whose introduction into transboundary waters should be prohibited or at least prevented by using the best available technology; such pollutants should be eliminated within a reasonable period of time'.[111]

Article 21(3) can be regarded as a means of giving specific effect to the general obligation to co-operate contained in Article 8 and the obligation imposed on watercourse States under Article 7(2) to 'take all appropriate measures … in consultation with the affected State, to eliminate and mitigate … harm …'. Further, the 1991 commentary refers, in the context of Article 21(2) and (3), to the general obligation on watercourse States under Article 5(2) to 'participate in the use, development and protection of an international watercourse in an equitable and reasonable manner'.[112]

In conclusion, therefore, it is generally agreed that the obligation to prevent transboundary pollution, as well as containing a substantive core, entails a number of associated procedural duties[113] including, most significantly, the general duty of States to cooperate. This duty to cooperate may take a variety of forms depending on the relevant factual circumstances. For example, before undertaking any development or activity with a risk of significant transboundary harm, the State with jurisdiction over the activity should assess its potential transboundary impacts. However, States are generally required to co-

[108] *Report of the International Law Commission on the Work of its Fortieth Session*, [1988] 2 *Yearbook of the International Law Commission,* UN Doc. A/43/10, at 165.
[109] *Ibid.*
[110] *Ibid.*
[111] UN Doc. E/ECE (42)/L. 19, at 18.
[112] *Draft Articles on the Non-navigational Uses of International Watercourses and Commentaries Thereto, Provisionally adopted on First Reading by the International Law commission at its Forty-Third Session* (1991), at 140.
[113] See generally, Knox, *supra,* n. 78, at 295-296.

operate in relation to the prevention of transboundary harm and, in particular, to notify any potentially affected States and to consult with them over the measures to be taken. The substantive obligation to prevent pollution is based on a requirement of due diligence and failure to actively cooperate in good faith, by conducting an adequate transboundary EIA for example, is likely to indicate breach of the rule where significant harm occurs. As Okowa observes:

> 'it may be argued that such assessments may be a relevant factor in determining whether a State has acted with the requisite degree of diligence in discharging its customary law or treaty-based duty to prevent environmental harm. A State that fails to assess the impact of proposed activities on the territories of other States can hardly claim that it has taken all practicable measures with a view to preventing environmental damage'.[114]

Further, established and emerging principles of customary international environmental law act upon the various determinations involved. For example, the precautionary principle is likely to have a role to play in deciding whether any harm caused or likely to be caused by the activity in question is significant for the purposes of the duty to prevent environmental harm. All of these elements are present, to a greater or lesser degree, either explicitly or implicitly, in the regime for the prevention of transboundary environmental harm established by the 1997 UN Convention on the Non-navigational Uses of International Watercourses.

(b) Duty to Cooperate

The general obligation on States to co-operate in the resolution of international problems is widely accepted and receives support from such an authoritative legal source as Article 1(3) of the United Nations Charter which states that one of the purposes of the United Nations is '[T]o achieve international co-operation in solving international problems of an economic, social, cultural or humanitarian character …'. The ICJ has noted that the main principles established by the UN Charter have acquired a customary value independent of that text[115] and this approach is evident in the United Nations General Assembly's 1970 Resolution on Friendly Relations and Co-operation Between States.[116] The general obligation to co-operate is given practical effect by means of various associated rules of procedural conduct that are evolving as contemporary international custom, including the duties to notify, consult, negotiate and warn. However, Bodansky once again questions the true status of such rules, suggesting that they are likely to be 'declarative' rather than customary.[117] At any rate, the obligation to co-operate, whatever its exact legal status, can be said to be more firmly established and highly developed in terms of its application to the protection of the environment and the environmental protection and utilisation of shared natural resources. Indeed, as Dupuy notes, 'co-operation is the general means by which States will implement the substantive rights and duties regarding

[114] P. N. Okowa, 'Procedural Obligations in International Environmental Agreements' (1996) 67 *British Yearbook of International Law* 275, at 280. This argument was advanced by New Zealand in the 1995 *Nuclear Tests* case, *supra,* n. 51, see *aide-mémoire* of 21 August 1995, and the dissenting opinion of Judge Palmer, (1995) *ICJ Rep.* 381, at 411.

[115] *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v. United States), Merits,* (1986) I.C.J. 14 (Judgment of June 27).

[116] G.A. Res. 2625 (XXV), U.N. GAOR Supp. (No. 28), at 121, U.N. Doc. A/8028 (1970).

[117] *Supra,* n. 10, at 114. See also, G. Partan, 'The "Duty to Inform" in International Environmental Law', (1988) 6 *Boston University International Law Journal* 43, at 83.

the use of transboundary natural resources'.[118] Similarly, Birnie and Boyle describe the obligation to co-operate in mitigating transboundary environmental risk as 'now widely acknowledged' and, more particularly, they refer to the 'requirement of prior consultation based on adequate information' as 'a natural counterpart to the concept of equitable utilization of a shared resource'.[119] In support of this conclusion one needs only to consider the numerous non-binding recommendations and declarations of States which refer to the obligation to co-operate and define some of its means of implementation. For example, Principle 24 of the Stockholm Declaration on the Environment[120] articulated the obligation and this formulation has been restated by the U.N. General Assembly in several resolutions, including the 1972 Resolution on Co-operation Between States in the Field of Environment[121] and the 1973 Resolution on Co-operation in the Field of the Environment Concerning Natural Resources Shared by Two or More States.[122] A later General Assembly Resolution on Co-operation in the Field of the Environment Concerning Natural Resources Shared by Two or More States[123] further developed the obligation and was inspired by the 1978 UNEP Principles of Conduct on Shared Natural Resources.[124] Principle 13 of the 1978 UNEP Principles requires that effects on the environment, as well as on the resources of other States, are among the matters which must be taken into account in policies on the use of shared resources. The obligation to co-operate has been restated in several OECD Recommendations, including the 1974 Recommendation on Transfrontier Pollution.[125] The obligation also receives support from the declarations of various regional groups and organisations. For example, Article 2 of 1989 Declaration of Brasilia, adopted by the Sixth Ministerial Meeting on the Environment in Latin America and the Caribbean, provides

> 'The Ministers endorse the principle that each State has the sovereign right to administer freely its own resources. This does not, however, exclude the need for international co-operation at the sub-regional, regional and world levels; rather it reinforces it'.[126]

Though some commentators remain sceptical of the value of seeking to identify general customary procedural rules on the basis of treaty provisions, case law and limited State practice,[127] the 1992 Rio Declaration[128] contains a strong endorsement of the requirement to notify and consult in Principle 19, which provides that

> 'States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse

[118] *Supra,* n. 8, at 70.
[119] *Supra,* n. 41, at 126. For further support for this assertion among leading commentators, see G. Handl, 'The Principle of 'Equitable Use' as Applied to Internationally Shared Natural Resources: Its Role in Resolving Potential International Disputes over Transfrontier Pollution', (1978) 14 *Revue Belge de Droit International* 40, at 55-63; A. E. Utton, 'International Environmental Law and Consultation Mechanisms' (1973) 12 *Columbia Journal of Transnational Law* 56; F. L. Kirgis, *Prior Consultation in International Law*, (Charlotsville, Va., 1983).
[120] *Supra*, n. 54.
[121] UNGA Res. 2995(XXVII), U.N. GAOR Supp. (No. 30), U.N. Doc. A/8732 (1972).
[122] *Supra,* n. 55.
[123] UNGA Res. 34/186, U.N. GAOR Supp. (No. 46) at 128, U.N. Doc. A/34/46.
[124] *Supra,* n. 61.
[125] *Supra,* n. 59. Others include Recommendations C(77) 115, C(77)28 and C(78)77, in OECD, *OECD and the Environment* (1986), at 181, 150 and 154 respectively.
[126] Reprinted in 28 *ILM* (1989) 1311.
[127] In particular, see Okowa, *supra,* n. 114, at 317-22. See also, Bodansky, *supra*, n. 10., at 114.
[128] *Supra,* n. 69.

transboundary environmental effect and shall consult with those States at an early stage and in good faith'.

Birnie and Boyle conclude that Principle 19 reflects and codifies the relevant precedents from treaty and State practice and case law and further point out that

' … even if notification and consultation in cases of transboundary risk may not yet be independent customary rules, non-compliance with them is likely to be strong evidence of a failure to act diligently in protecting other states from harm under Rio Principle 2.'[129]

Further, the work of international codification bodies supports the general requirement of transboundary co-operation in cases of significant environmental risk. Examples include, Articles 4-6 of the 1982 International Law Association's Montreal Rules on Transfrontier Pollution.[130]

Similarly, a very considerable number of treaty instruments refer to the need for States to co-operate and many provide detailed measures for discharging this obligation. Relevant examples of general environmental treaties include, the 1968 African Convention on the Conservation of Nature and Natural Resources,[131] the 1974 Paris Convention for the Prevention of Marine Pollution from Land-Based Sources,[132] the 1974 Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea Area,[133] the 1976 Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution,[134] the 1979 ECE Convention on Long-Range Transboundary Air Pollution,[135] the 1982 UN Convention on the Law of the Sea,[136] the 1983 Canada-Denmark Agreement for Co-operation Relating to the Marine Environment,[137] the 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources,[138] and the 1988 Kuwait Protocol Concerning Marine Pollution Resulting from Exploration and Exploitation of the Continental Shelf.[139] A considerable number of treaties dealing specifically with shared freshwater resources also allude to the obligation to co-operate, including the 1963 Berne Convention on the International Commission for the Protection of the Rhine,[140] the 1964 Agreement concerning the Use of Waters in Frontier Waters concluded between Poland and the USSR,[141] the 1971 Act of Santiago concerning Hydrologic Basins concluded between Argentina and Chile,[142] and the 1978 Great Lakes Water Quality Agreement between Canada and the United States.[143] Part III, comprising Articles 11-19, of the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses relates to 'Planned Measures' and contains detailed procedural rules requiring

[129] *Supra,* n. 41, at127.
[130] ILA, *Report of the 60th Conference* (1982), 1.
[131] 1001 *UNTS* 4. (Article 16).
[132] 13 *ILM* 352 (1974).
[133] 13 *ILM* 546 (1974).
[134] 15 *ILM* 290 (1976). This instrument has been followed by numerous conventions established on the same model for the protection of other regional seas.
[135] 18 *ILM* 1442 (1979).
[136] 21 *ILM* 1261 (1982). (Articles 63,66-67 and 197).
[137] 23 *ILM* 269 (1984).
[138] Reprinted in (1985) 15 *Environmental Policy and Law* 64. (Articles 19 and 20).
[139] Reprinted in (1989) 19 *Environmental Policy and Law* 32.
[140] Reprinted in *Tractatenblad Van Het Koninkrijk Der Nederlanden,* No. 104 (1963).
[141] 552 *UNTS* 175.
[142] UN Doc. A/CN.4/274. (Articles 3-8).
[143] 30 *UST* 1383, *TIAS* No. 9258. (Articles 7-10).

watercourse States to notify, consult and negotiate in relation to planned measures which may have adverse effects on other watercourse States.

Even before the development of modern international environmental law, the commencement of which is normally taken to have been facilitated by and to be contemporaneous with the 1972 Stockholm process, the Arbitral Tribunal in the *Lac Lanoux* case clearly recognised in 1957 the duty of States to co-operate in the use of the waters of an international watercourse. The Tribunal stated that

> '… States are today perfectly conscious of the importance of the conflicting interests brought into play by the industrial use of international rivers, and of the necessity to reconcile them by mutual concessions. The only way to arrive at such compromises of interests is to conclude agreements on an increasingly comprehensive basis. *International practice reflects the conviction that States ought to strive to conclude such agreements; there would thus appear to be an obligation to accept in good faith all communications and contacts which could, by a broad confrontation of interests and by reciprocal good will, provide States with the best conditions for concluding agreements*'.[144]

The Tribunal clearly linked the obligation to co-operate in good faith with the effective conclusion of international agreements as a means of ensuring the prevention of transboundary harm. More recently, in the *Case Concerning the Gabčíkovo-Nagymaros Project,* the ICJ judgment reflects the procedural obligation to co-operate to minimise the risk of environmental harm and, indeed, requires the State parties to agree to co-operate in the joint management of the project. The Court emphasised the necessity of co-operation among watercourse States, stating for example that '[O]nly by international cooperation could action be taken to alleviate … problems [of navigation, flood control, and environmental protection]'.[145]

Even more recently, in the application brought by Ireland to the International Tribunal for the Law of the Sea (ITLOS) seeking provisional measures to prevent the UK from commencing operations at its new MOX plant at the Sellafield nuclear site in Cumbria, the Tribunal in its decision of 3rd December 2001[146] prescribed that, pending a decision of the full hearing of the matter before the special Arbitral Tribunal constituted in accordance with Annex VII of UNCLOS,

> 'Ireland and the UK shall cooperate and shall, for this purpose, enter into consultation forthwith in order to:
>
> (a) exchange further information with regard to possible consequences for the Irish Sea arising out of the commissioning of the MOX plant;
>
> (b) monitor risks or the effects of the operation of the MOX plant for the Irish Sea;
>
> (c) devise, as appropriate, measures to prevent pollution of the marine environment which might result from the operation of the MOX plant.'[147]

[144] *Lac Lanoux Arbitration (France v. Spain)*, (1957) 25 *I.L.R.* 101, at 129-130; (1957) 12 *Rep. Int'l, Arb. Awards* 281; (1959) 53 *American Journal of International Law* 156. (Emphasis added.)
[145] *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia),* (1997) *ICJ Reports* 7, at 20.
[146] *Ireland v. United Kingdom (The MOX Plant Case),* 41 *ILM* (2002) 405 (Order).
[147] Order, para. 89.

In addition, the Tribunal required the parties to submit a report on the implementation of the measures by 17th December 2001 and such further reports as might be requested by the Tribunal President. The Tribunal based these measures on the duty to cooperate, a fundamental duty under Part XII of the Convention and a general principle of international law, from which the Tribunal considered that rights arise which may require preservation by way of provisional measures.[148]

The 1974 United Nations Charter of Economic and Social Rights and Duties of States emphasises the inter-relationship between the obligation of prevention of transboundary harm and the obligation of co-operation, of which the duties to notify and consult form a fundamental part.[149] In relation to the duty of States to provide *ad hoc* notification before commencing particular activities or undertaking certain projects capable of causing environmental damage in the territory of other States, Title E of the 1974 OECD Recommendation on Principles Concerning Transfrontier Pollution,[150] which has been used as a template by other international bodies including the UNEP,[151] requires that

> 'Prior to the initiation in a country of works or undertakings which might create a significant risk of transfrontier pollution, this country should provide early information to other countries which are or may be affected' [and that] '[C]ountries should enter into consultation [held in the best spirit of co-operation and good neighbourliness] on an existing or foreseeable transfrontier pollution problem at the request of a country which is or may be directly affected …'[152]

Many environmental treaty regimes make express reference to the related duties to notify and consult, including the 1979 ECE Convention on Long-Range Transboundary Air Pollution[153] and, notably, Article 206 of the 1982 UN Convention on the Law of the Sea. However, treaty provisions creating express duties to notify and consult are particularly prevalent in conventions concerning the development, protection, and use of international watercourses. Examples include, Article 6 of the 1960 Indus Waters Treaty concluded between India and Pakistan,[154] Article 9 of the 1974 Agreement concerning Co-operation in Water Economy Questions in Frontier Rivers concluded between the German Democratic Republic and Czechoslovakia,[155] and Article 9 of the 1978 Agreement on Great Lakes Water Quality.[156] Also, for many years now, all international bodies attempting to codify the main customary rules applying to the environmental protection of shared freshwater resources have insisted on the key role of the related duties to notify and consult in the implementation of the general duty to co-operate. See, for example, Article 6 of the Institut de Droit Internationale (IDI) 1979 Athens Resolution on Pollution of Rivers and Lakes in International Law.[157] These requirements are now set out in detail

[148] See further, V. Hallum, 'International Tribunal for the Law of the Sea: The *MOX Nuclear Plant* Case', (2002) 11 *Review of European Community and International Environmental Law* 372.
[149] G.A. Res. 3281, 29 U.N. GAOR Supp. (No. 31) at 50, U.N. Doc. A/9631 (1975). Reprinted in 14 *ILM* 251 (1975).
[150] *Supra,* n. 59.
[151] See Dupuy, *supra,* n. 8, at 72.
[152] Recommendation C(74)224 (14 Nov. 1974).
[153] (1979) *T.I.A.S.* No. 10541; (1979) 18 *ILM* 1442.
[154] 419 *U.N.T.S.* 125
[155] Reprinted in *Sozialistische Landeskultur Umweltschutz, Textansgabe Ausgewählter Rechtsvorschriften, Staatsverslag Der Deutsch Dem. Rep.* 375 (1978).
[156] 30 *U.S.T.* 1383; *T.I.A.S.* No. 9257.
[157] (1980) *Yearbook of the Institute of International Law*, Part II, 199.

in the relevant Articles of the 1997 UN Convention on International Watercourses which, in the view of the International Law Commission, reflect established international practice.

Also, in certain situations, such as that pertaining in the Prespa Lakes Basin, the obligation to co-operate may involve a more general and regular exchange of information, not only in relation to potential transfrontier pollution but also in relation to the use and management of shared natural resources. This is particularly the case in relation to international watercourses where permanent drainage basin or regional institutions facilitate the common management of shared water resources through such exchange of information. Such institutions have been in common use since the establishment of the International Joint Commission by the United States and Canada in 1909.[158] More recent examples of common management institutions for water resources include the Sava Commission,[159] the Danube Commission,[160] the Lake Chad Basin Commission,[161] the River Niger Commission,[162] the Permanent Joint Technical Commission for Nile Waters,[163] the Zambezi Intergovernmental Monitoring and Co-ordinating Committee,[164] the Intergovernmental Co-ordinating Committee of the River Plate Basin,[165] and, the Amazonian Cooperation Council[166]. Indeed, Dupuy concludes that such regular exchange of information by means of such permanent regional institutions

> 'seems to be the most appropriate way of establishing a reasonable and equitable use of shared natural resources, *as is required by international law*. Indeed, the equitable apportionment of such resources can best be defined by way of negotiation, in order to harmonize the different economic, political, and social interests existing in each concerned State as to how the resource will be utilized. The experience provided by the management of international watercourses abundantly illustrates such situations'.[167]

A further element of the duty to notify concerns the so-called 'duty to warn', *i.e.* the duty of States to notify others of accidents that have occurred within their territory which are likely to result in transfrontier environmental damage. Commentators generally agree that such a norm has either become clearly established in customary international law[168] or is

[158] 1909 Treaty between the United States and Great Britain Respecting Boundary Waters between the United States and Canada, 4 *American Journal of International Law (Suppl.)* 239.
[159] International Sava River Basin Commission, established under Article 16(1)(c) of the Framework Agreement on the Sava River Basin (Kranjska Gora, 3 December 2002).
[160] 1948 Convention regarding the Regime of Navigation on the Danube, and, the 1990 Agreement concerning Co-operation on Management of Water Resources of the Danube Basin. See J. Linnerooth, 'The Danube River Basin: Negotiating Settlements to Transboundary Environmental Issues', (1990) 30 *Natural Resources Journal* 629-660.
[161] 1964 Convention and Statute Relating to the Development of the Chad Basin.
[162] 1963 Niamey Act Regarding Navigation and Economic Co-operation between the States of the Niger Basin, 587 U.N.T.S. 9.
[163] 1959 Agreement between the UAR and the Republic of Sudan for the Full Utilization of Nile Waters, and 1960 Protocol Establishing Permanent Joint Technical Committee.
[164] 1987 Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi River System.
[165] 1969 Treaty on the River Plate Basin, and the 1973 Treaty on the River Plate and its Maritime Limits.
[166] 1978 Treaty for Amazonian Co-operation.
[167] *Supra,* n. 8, at 73.
[168] V. Beyerlin, 'Neighbour States', in R. Bernhardt (Ed.), *Encyclopedia of Public International Law*, Vol. 10, 310, at 313.

in the process of emerging[169] and provisions creating an obligation to warn are commonly contained in the various international legal instruments cited above in connection with the general notification and consultation procedures.

Clearly, the most effective means by which States sharing a transboundary resource such as a river basin can ensure full compliance with the general obligation to co-operate, and achieve equitable and reasonable use, is through the negotiation of bilaterial or multilateral agreements concerning, in particular, the establishment of appropriate institutional structures for the joint management of such a resource, the acceptance of agreed dispute settlement mechanisms, the establishment and periodic revision of qualitative environmental norms and quantitative pollution criteria and thresholds, co-operation in the areas of scientific study, research and environmental monitoring, the elaboration of emergency plans for dealing with major pollution or other incidents, and, the elaboration of conservation plans. Of course, such cooperative inter-State institutional machinery need not necessarily be established by formal international agreement and even where such a body exists and functions on a less formal basis, as is the case with the PPCC, it may provide the most effective means for ensuring full compliance with the general obligation to cooperate.

Members of the International Law Commission, in the course of their discussions on the subject of international watercourses, differed on whether the need for States to co-operate was a mere aspiration or a binding legal duty. For example, Calero Rodriguez argued that 'cooperation was a goal, a guideline for conduct, but not a strict legal obligation which, if violated, would entail international responsibility'.[170] On the other hand, Graefrath insisted that 'cooperation was not simply a lofty principle, but a legal duty'.[171] However, despite disagreement over the precise legal status of the duty to co-operate *per se,* most agreed that it was an 'umbrella term, embracing a complex of more specific obligations which, by and large, do reflect customary international law'.[172] For example, Reuter concluded that '[T]he obligation to cooperate was a kind of label for an entire range of obligations'.[173] Sands takes a similar view and explains that the obligation to cooperate has 'been translated into more specific commitments', including

> '[R]ules on environmental impact assessment …; rules ensuring that neighbouring states receive necessary information (requiring information exchange, consultation and notification) …; the provision of emergency information …; and transboundary enforcement of environmental standards.'[174]

However, despite the misgivings of some of its members about the precise legal nature and status of the obligation to co-operate, the International Law Commission eventually decided to include an express reference to this duty in its 1994 Draft Articles.[175] This

[169] J. Schneider, 'State Responsibility for Environmental Protection and Preservation', in Falk, Kratochwil and Mendlowitz (Eds.), *International Law: A Contemporary Perspective*, (1985), 602, at 613.
[170] [1987] *Yearbook of the International Law Commission*, vol. 1, at 71. See S. McCaffrey, *The Law of International Watercourses* (OUP, Oxford, 2001), at 401.
[171] *Ibid.,* at 85.
[172] McCaffrey, *supra,* n. 170, at 401.
[173] [1987] *Yearbook of the International Law Commission*, vol. 1, at 75.
[174] P. Sands, *supra,* n. 38, at 197-198.
[175] *Report of the International Law Commission* (1994), at 105.

reference formed the basis of Article 8 of the 1997 UN Watercourses Convention,[176] which recognises the practical importance of the duty to co-operate for the attainment of the twin goals of optimal utilisation and adequate protection of an international watercourse.[177] Article 8 also stresses the role of joint mechanisms or commissions in facilitating such co-operation.[178]

Therefore, it is readily apparent that the littoral States of the Prespa Lakes Basin are obliged to engage in a range of cooperative activities, including in particular the generation and regular exchange of key information required for the effective management of the Prespa lakes ecosystem. It is equally apparent that these obligations can only be realistically met by each State by, at a minimum, participating fully in the work of the PPCC and actively supporting the further development of the institutional structures required in order to facilitate such monitoring, research and information exchange, including a Water Management Working Group.

4. Common Management Institutions / River Basin Commissions

In seeking to better understand the nature of the obligation on the littoral States to engage in active and good faith cooperation for the environmental protection and sustainable development of the Prespa Lakes, it is very useful to examine the practice of the many international joint commissions established to facilitate inter-governmental cooperation in drainage basin planning, protection and utilisation.

While international law relating to the management of international watercourses, and to the environmental protection of shared freshwater resources in particular, has undergone significant development and clarification in recent years, the institutional machinery employed by basin States in order to achieve the enhanced co-operation required has been developing apace. It is now quite clear that the principle of 'equitable and reasonable utilisation' enjoys pre-eminence as the cardinal rule of international law relating to the utilisation of international watercourses, and increasingly apparent that considerations of environmental protection are of steadily growing significance as factors relevant to the application of this principle. Indeed, it is arguable that it is the very normative sophistication and comprehensive scope of general environmental rules that give added 'voice' to environmental concerns within the process of the determination of a reasonable and equitable regime for the utilisation of an international watercourse.[179] With the ongoing elaboration and adoption of increasingly sophisticated regional and global conventional arrangements, as well as myriad declaratory and codification instruments,

[176] Convention on the Non-Navigational Uses of International Watercourses (New York, 21 May 1997), 36 *ILM* 719 (1997). Not in force.
[177] Article 8(1) provides
'Watercourse States shall 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'.
[178] Article 8(2) provides
'In determining the manner of such cooperation, watercourse States may consider the establishment of joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions'.
[179] See generally, O. McIntyre, Environmental Protection of International Watercourses under International Law, (Ashgate, 2007).

there exists greater clarity as to the normative requirements inherent in established and emerging legal obligations and principles relating to the utilisation and environmental protection of international freshwater resources. Such obligations and principles include, *inter alia*, the due diligence obligation to prevent transboundary harm, the general duty of States to co-operate, the obligation to conduct transboundary environmental impact assessment, the precautionary principle, and the so-called 'ecosystems approach'.

The most significant development in relation to institutional machinery has been the increasingly widespread adoption of some form of 'common management' approach, whereby the drainage basin is regarded as an integrated whole and is managed, to a greater or lesser extent, as an economic unit, with the waters either vested in the community of co-basin States or divided among them by agreement, accompanied by the establishment of international machinery to formulate and implement common policies for the management and development of the basin. Such an approach has long been advocated by learned associations and diplomatic conferences but has become all the more necessary due to the complexity of modern water resources utilisation and environmental protection obligations.

The institutional structure and purposes of common management regimes vary from basin to basin, with different economic problem structures likely to have implications for institutional design,[180] and not all having as yet a role in environmental regulation.[181] Common management is an approach to managing water problems rather than a normative principle of international law, and as such it has been endorsed by the international community,[182] and adopted by international codification bodies, including the Institute of International Law (IIL/IDI),[183] the International Law Association (ILA),[184] and the International Law Commission (ILC).[185] Recommendation 51 of the *Action Plan for the Human Environment* adopted at the 1972 Stockholm Conference called for the 'creation of river basin commissions or other appropriate machinery for co-operation between interested States for water resources common to more than one jurisdiction' and set down a number of basic principles by which such commissions should be guided.[186] Significantly, the introduction to Chapter 18 of Agenda 21 provides that

[180] See I. Dombrowsky, *Conflict, Cooperation and Institutions in International Water Management: An Economic Analysis,* (Edward Elgar, 2007), at 37.
[181] Early examples include, the International Commission for the Protection of the Rhine, (1963 Agreement concerning the International Commission for the Protection of the Rhine, reprinted in (1963) *Tractatenblad Van Het Koninkrijk Der Nederlanden,* No. 104), and the Moselle Commission, (1961 Protocol concerning the Constitution of an International Commission for the Protection of the Moselle Against Pollution).
[182] UN Committee on Natural Resources, UN Doc. W/C.7/2 Add. 6, 1-7; Economic Commission for Europe, Committee on Water Problems 1971, UN Doc. E/ECE/Water/9 Annex II; Council of Europe Rec. 436 (1965); 1972 Stockholm Action Plan fo the Human Environment, UN Doc. A/Conf.48/14/Rev. 1, Rec. 51; *Report of the UN Water Conference, Mar del Plata,* 14-25 March, 1977.
[183] See, for example, the 1961 Resolution on Non-Maritime International Waters, Article 9; the 1979 Resolution on the Pollution of Rivers and Lakes, Article 7(G).
[184] See, the International Law Association's 2004 Berlin Rules on Water resources, Articles 64 and 65. Indeed, the ILA's 1999 Campione Consolidation provides, in Article 45, a definition of an "international watercourse administration" and, further, even provides guidelines on the establishment of such a body (Bogdanović 2001: 72-73, 78-81).
[185] See, for example, (1984) *Yearbook of the International Law Commission*, vol. II, part 1, at 112-116.
[186] *Report of the United Nations Conference on the Human Environment ,* Stockholm 5-16 June 1972 (UN Publication Sales No. E.73.II.A.14), Chapter II, Section B.

> 'The widespread scarcity, gradual destruction and aggravated pollution of freshwater resources in many world regions, along with the progressive encroachment of incompatible activities, demand integrated water resources planning and development.'[187]

Indeed, Chapter 18 goes on to suggest what role any institutional machinery established to effect such integrated water resources planning and development might play, by stating that

> 'In the case of transboundary water resources, there is a need for riparian States to formulate water resources strategies, prepare water resources action programmes and consider, where appropriate, the harmonisation of those strategies and action programmes.'[188]

Prominent examples of common management institutions for water resources include the Danube Commission,[189] the US-Canadian International Joint Commission,[190] the Lake Chad Basin Commission,[191] the River Niger Commission,[192] the Permanent Joint Technical Commission for Nile Waters,[193] the Zambezi Intergovernmental Monitoring and Co-ordinating Committee,[194] the Intergovernmental Co-ordinating Committee of the River Plate Basin,[195] and, the Amazonian Cooperation Council.[196] Indeed a 1979 survey conducted by the United Nations identified ninety common management institutions concerned with non-navigational uses, distributed throughout every region of the world,[197] and recent estimates suggest that 'well over one hundred international river commissions have been established by states'.[198]

(a) Community of Interests

The idea that a community of interests exists in international watercourses, and the related idea that those interests can be identified and safeguarded on the basis of equity, has received some support in the deliberations of international judicial tribunals. In the

[187] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992,* UN Doc. A/CONF.151/26 (vol. II) (1992), at 167, para. 18.3.
[188] *Ibid.,* at 169, para. 18.10.
[189] 1948 Convention regarding the Regime of Navigation on the Danube, 33 *UNTS* 196; 1990 Agreement concerning Co-operation on Management of Water Resources of the Danube Basin.
[190] 1909 Treaty relating to Boundary Waters, and Questions Arising Along the Boundary between the US and Canada, UN Legislative Texts and Treaty Provisions, ST/LEG/SerB/12, 260; 36 Stat. 2448; *Legislative Texts*, No. 79, at 260; 102 *British and Foreign State Papers* 137; 4 *American Journal of International Law (Suppl.)* 239.
[191] 1964 Convention and Statute Relating to the Development of the Chad Basin.
[192] 1963 Act regarding Navigation and Economic Co-operation between the States of the Niger Basin, 587 *UNTS* 9.
[193] 1959 Agreement between the UAR and the Republic of Sudan for the Full Utilization of Nile Waters, 453 *UNTS* 51, and 1960 Protocol Establishing Permanent Joint Technical Committee.
[194] 1987 Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi River System, (1987) 27 *ILM* 1109.
[195] 1969 Treaty on the River Plate Basin, (1969) 8 *ILM* 905; 1973 Treaty on the River Plate and its Maritime Limits, (1974) 13 *ILM* 251.
[196] 1978 Treaty for Amazonian Co-operation, (1978) 17 *ILM* 1045.
[197] See, United Nations, *Annotated list of multipartite and bipartite commissions concerned with non-navigational uses of international watercourses,* (April, 1979), which lists 48 entries for Europe, 23 for the Americas, 10 for Africa, and 9 for Asia.
[198] See S. McCaffrey, *The Law of International Watercourses: Non-Navigational Uses* (Oxford University Press, 2001), at 159.

Territorial Jurisdiction of the International Commission of the River Oder case, though concerned with rights of navigation, the Permanent Court of International Justice (PCIJ) referred to 'principles governing international fluvial law in general' and concluded that

> '[T]his community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others.'[199]

Indeed, in the same passage, the PCIJ refers to 'the possibility of fulfilling the requirements of justice and the considerations of utility', suggesting that the Court anticipated a role for considerations of equity in giving effective protection to the rights of States.[200] This is suggestive of the manner in which the doctrine of equitable utilisation functions to require the equitable balancing of factors and interests relevant to the determination of a regime for utilisation of a watercourse. In the recent *Gabčíkovo-Nagymaros* case, the International Court of Justice quoted from the above passage from the *River Oder* case and stated that

> '[M]odern development of international law has strengthened this principle for non-navigational uses of international watercourses as well, as evidenced by the adoption of the Convention of 21 May 1997 on the Law of the Non-Navigational Uses of International Watercourses by the United Nations General Assembly.' [201]

On the basis of this principle, the Court concluded that

> 'Czechoslovakia, by unilaterally assuming control of a shared resource, and thereby depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube … failed to respect the proportionality which is required by international law.'

This statement of the Court illustrates that 'the concept of community of interest can function not only as a theoretical basis of the law of international watercourses but also as a principle that informs concrete obligations of riparian states, such as that of equitable utilization'.[202] Where a community of interests approach is adopted and implemented by means of common management institutions, '[A] state's "interests" in an international watercourse system would generally be defined by its present and prospective uses of the watercourse as well as its concern for the health of the watercourse ecosystem'.[203]

In terms of State practice, the concept of community of interest is commonly traced back to a French decree of 1792 dealing with the opening of the Scheldt River to navigation.[204] The position expressed in this decree was quickly adopted in a number of instruments concerned primarily with rights of navigation in international rivers[205] The Vienna

[199] Judgment no. 16 (10 Sept. 1929), PCIJ Series A, No. 23, 5-46, at 27-28.
[200] McCaffrey, *supra,* n. 198, at 152.
[201] *Case Concerning the Gabcikovo-Nagymaros Project (Hungary/Slovakia)*, (1997) *ICJ Reports* 7, para. 85.
[202] McCaffrey, *supra,* n. 198, at 152.
[203] *Ibid.,* at 165.
[204] Décret du 16 Nov. 1792, L. le Fur and G. Chklaver, *Recueil des Textes de Droit International* (2nd ed., Paris, Dalloz, 1934), at 67.
[205] These include, the Treaty of Peace and Alliance between the French and the Batavian Republic of 16 May 1795, Article 18, 6 *Martens*, at 532, which concerned the Rhine, the Meuse, the Scheldt and the Hondt; the Principal Resolution of the Imperial Deputation (*Reichsdeputationshauptschluss*) of 25 February 1803, 3 *Martens*, Supp., at 239, which concerned the portion of the Rhine shared between the Bavarian and the Swiss Republic; the Treaty of 14 May 1811 demarcating the frontiers between Prussia and Westphalia, Articles 7 and 9.

Congress of 1815 'lead to the foundation of the Central Commission for Navigation on the Rhine, which was not only the first international river basin organisation, but also the first international organisation in general'.[206] Indeed, Dombrowsky finds it 'interesting to note that it was the interdependence created by the use of water that gave rise to the foundation of the first modern international organization'.[207] However, some early agreements giving expression to the concept of community of interest were not restricted to navigational uses. For example, Article 4 of the 1905 Treaty of Karlstad between Sweden and Norway provides that '[T]he lakes and watercourses which form the frontier between the two States or which are situated in the territory of both or which flow into the said lakes and watercourses shall be considered as common'. In terms of modern treaty practice, the 1995 Protocol on Shared Watercourse Systems adopted by the Southern African Development Community (SADC) provided in Article 2 that the Member States are to 'respect and abide by the principle of community of interests in the equitable utilisation of [shared watercourse] systems and related resources.'[208] The 2000 Revised SADC Protocol on Shared Watercourses,[209] however, which supersedes the 1995 Protocol, does not contain any corresponding provision but rather follows the approach taken under the 1997 UN Watercourses Convention.[210] Nevertheless, renewed efforts to establish basin-wide cooperative institutions in Southern Africa, in accordance with the Revised SADC Protocol, can be observed in the establishment of the Orange-Senqu River Commission in 2000, the Limpopo Watercourse Commission in 2003 and the Zambezi Watercourse Commission in 2004. Article 1(2) of the 1992 Agreement between Namibia and South Africa on the Establishment of a Permanent Water Commission provides that the Commission's objective is, *inter alia*, 'to act as technical adviser to the Parties on matters relating to the development and utilisation of *water resources of common interest to the Parties*'.[211] Also, in 1990, Nigeria and Niger concluded an Agreement concerning the Equitable Sharing in the Development, Conservation and Use of their Common Water Resources, though the text of the agreement uses the term 'shared river basins'. The more striking examples of treaties expressly employing a community of interests approach often concern a single shared watercourse system or water resource. For example, Article 1 of the 1957 Agreement between Bolivia and Peru concerning a Preliminary Economic Study of the Joint Utilization of the Waters of Lake Titicaca expressly refers to 'the fact that the two countries have joint, indivisible and exclusive ownership over the waters of Lake Titicaca'.[212] Indeed, these States went on to establish in the early 1990s a Binational Authority for the implementation of the Binational Master Plan of the Titicaca-Desaguadero-Poopo-Salar de Copaisa System. It is more usual for modern inter-State arrangements 'to *treat* international watercourses as being of common interest than to *refer* to them expressly as common rivers or property'.[213] Examples include, agreements

[206] See S. McCaffrey, 'International Watercourses', in R.-J. Dupuy (ed.), *Manuel sur les organisations internationals. A Handbook on International Organizations* (Martinus Nijhoff, 1998) 725, at 733. See also, Dombrowsky, *supra,* n. 180, at 94.
[207] *Ibid.*
[208] FAO, *Treaties Concerning the Non-Navigation al Uses of International Watercourses: Africa* (FAO Legislative Study 61, 1997), at 146.
[209] (2001) 40 *ILM* 321.
[210] United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, (New York, 21 May 1997), (1997) 36 *ILM* 700.
[211] (1993) 32 *ILM* 1147 (emphasis added).
[212] *Legislative Texts,* No. 45, at 168.
[213] McCaffrey, *supra,* n. 198, at 158.

which entail the use of the territory of one riparian State by another for purposes such as storage,[214] and agreements which relate to the production and division of hydro-electric power in a manner which entails an equitable division of the benefits of the shared waters.[215]

Numerous commentators have advocated the principle of a community of interests in international watercourses and use of the associated common management approach, though few would contend that such an approach has evolved, or is likely soon to evolve, into a requirement of general or customary international law. For example, Godana, while observing that the notion of a community of interests in international watercourses 'is the legal principle most appropriate for a fully developed legal community', concedes that 'the international community is far from being fully developed' and that 'the idea has yet to develop into a principle of international law governing international water relations in the absence of treaties'.[216] Similarly, Kaya concludes that '[T]here is not enough support for the theory of common management from customary international law'[217] and, further, that

> 'Despite the dramatic increase in the scale of international cooperation regarding international watercourses, it does not suffice [*sic*] the argument for a common management of international watercourses. In practice, states are seldom willing to relinquish their power over a vital resource to international institutions authorized to manage an international watercourse independently, or even autonomously.'

Caflisch considers the merits of 'denationalizing' international watercourses and transferring their management from individual states to a joint organisation, and, concludes that 'while it is clear that a condominium could be established by treaty, one cannot maintain that, by virtue of the rules of customary law, the whole of an international watercourse, including its resources, forms a condominium'.[218] Similarly, in the course of her study of international agreements creating water management institutions, Dombrowsky notes that

> 'While some authors have recommended basin-wide agreements, others have argued that membership should be kept as small as possible in order to enhance the respective agreement's problem-solving capacity. From a legal perspective, affected parties should be able to participate as appropriate, but a basin-approach is no strict requirement'.[219]

(b) Common Management Institutions

[214] Treaty Relating to Cooperative Development of the Water Resources of the Columbia River Basin, Article 6, (17 January 1961), 15 *UST* 1555, 542 *UNTS* 244; Agreement for the Utilization of the Waters of the Yarmuk River between Jordan and Syria, (4 June 1953), 184 *UNTS* 15.
[215] Convention between France and Switzerland for the Development of the Water Power of the Rhone, Article 5, (Berne, 4 October 1913), *Legislative Texts*, No. 197, at 708; Treaty between the United States and Canada Relating to the Uses of the Waters of the Niagara River, Article 6, (Washington DC, 27 February 1950), 132 *UNTS* 228.
[216] B. A. Godana, *Africa's Shared Water resources: Legal and Institutional Aspects of the Nile, Niger, and Senegal River Systems* (Frances Pinter, 1985), at 49.
[217] I. Kaya, *Equitable Utilization: The Law of the Non-Navigational Uses of International Watercourses* (Ashgate, 2003), at 205.
[218] L. Caflisch, 'Règles Générales dy Droit des Cours d'Eau Internationaux' (1992) Vol. 219 *Recueil des Cours* (1989-VII), at 59-61.
[219] *Supra,* n. 180, at 97.

Common management regimes must, therefore, necessarily be voluntary arrangements, established by international instrument concluded between basin States. The rules of general international law will not impose a positive obligation and compel basin States to create such regimes. According to Olmstead, '… international law limits only the state's freedom of unilateral action but does not require joint utilization'.[220] Indeed, the commentary to Article 64 of the International Law Association's (ILA) 2004 Berlin Rules on Water Resources, the text of which requires '[W]hen necessary' the establishment of 'a basin wide or joint agency or commission with authority to undertake the integrated management of waters of an international drainage basin', freely concedes that

> 'While often basin management mechanisms will be the best or even a necessary means for achieving equitable and sustainable management of waters, customary international law does not specifically require such institutions be established nor does it provide specific details for such mechanisms.'

Of course, overarching supra-national legal arrangements for regional integration may give a fillip to the creation of transnational water management institutions. In accordance with the requirements of the E.C. Water Framework Directive, basin-wide institutional arrangements have recently been set up for most international rivers basins in Europe, whether lying within or stretching beyond the boundaries of the EU.[221]

A number of studies examine State practice in respect of international basin management organisations and their founding instruments in an effort to characterise a number of key types of organisation and to identify key features of their institutional design.[222] One recent study of 86 river basin organisations, which includes a detailed review and comparative analysis of 12 bodies selected 'in order to reflect a broad spectrum of scope, forms, functions and contexts', identifies a total of 18 different categories of water uses or 'issue areas', with which such organisations might be concerned, including: 'water quality; water quantity; hydropower; ecology; flood control; navigation; irrigation; economic development; infrastructure; fishing; river regulation; joint management; hydrological monitoring; erosion control; hazard prevention; melioration; recreation/tourism; border issues and timber floating'.[223] Of course, the organisational structure of such institutions will vary greatly depending, *inter alia*, on the range of issue areas covered, the powers and mandate of the institution and the degree of integration and cooperation envisaged by the riparian States, and Dombrowsky observes that

[220] C. J. Olmstead, 'Introduction', in A. H. Garretson, R. D. Hayton and C. J. Olmstead (eds.), *The Law of International Drainage Basins.* (Oceana, 1967), at 9.
[221] Directive 2000/60/EC, (2000) OJ L327/1, Articles 3(3)–(5).
[222] See L. A. Teclaff, *The River Basin in History and Law* (Martinus Nijhoff, 1967); L. A. Teclaff, 'Evolution of the River Basin Concept in National and International Law', (1996) 36 *Natural Resources Journal*, 359-392; D. G. LeMarquand, *International Rivers: The Politics of Cooperation* (Westwater Research Centre, University of British Columbia, 1977); J. Hamner and A. T. Wolf, 'Patterns in International Water Resource Treaties: The Transboundary Freshwater Dispute Database', (1998) *Colorado Journal of International Environmental Law and Policy* (1997 Yearbook); A. T. Wolf, 'Conflict and Cooperation along International Waterways', (1998) 1 *Water Policy*, 251-265; N. Kliot, D, Shmueli and U. Shamir, *Institutional Frameworks for Management of Transboundary Water Resources: Volume One – Institutional Frameworks as Reflected in Thirteen River Basins* (Water Research Institute, Haifa, 1997); McCaffrey, *supra,* n. 206; S. Burchi and M. Spreij, *Institutions for International Freshwater Management,* IHP-VI Technical Documents in Hydrology, Series No. 3 (UNESCO, 2003); E. Mostert, *Conflict and Cooperation in the Management of International Freshwater Resources: A Global Review,* IHP-VI Technical Documents in Hydrology, Series No. 19, (UNESCO, 2003); Dombrowsky, *supra,* n. 180.
[223] Dombrowsky, *ibid.,* at 91.

> 'On the one end of the continuum there are organizations with a hierarchy of decision-making organs and international secretariats in place. On the other end are commissions and committees composed of representatives of each member state that serve as negotiation fora without any formal administrative support'.[224]

However, though organisational structures may differ, all international water management institutions would appear, formally or effectively, to employ decision-making mechanisms requiring unanimous vote or consensus.[225] It is possible to identify broad trends indicating which international watercourses are more or less likely to benefit from the adoption of common management arrangements. For example, joint mechanisms are particularly likely to be established by States that use international watercourses intensively or where the watercourse ecosystem is particularly vulnerable,[226] as is clearly the case with Prespa. In addition, though empirical evidence 'seems to indicate the likelihood that organizations are set up appears to be higher in multipartite basins than in bipartite basins' … 'the number of multipartite river basins with strictly basin-wide arrangements is small'.[227]

Though common management arrangements must be entered into by States voluntarily, it is apparent that the accumulated practice of States in participating in such arrangements should serve to bolster the normative status, in customary or general international law, of the various rules comprising the general duty to co-operate, which is generally understood as consisting of a number of specific procedural obligations, such as the duty to notify, the duty to consult and /or negotiate in good faith, the ongoing exchange of information, the duty to warn and duties in relation to the settlement of disputes.[228] State practice in relation to common management could, in turn, inform the normative content of such procedural rules by making it clear that *bona fide* participation in common management institutions would satisfy the obligations inherent therein. Interestingly, the 1992 United Nations Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes,[229] which, at the end of 2000, had 26 signatories and 32 parties, actually requires parties to 'enter into bilateral or multilateral agreements or other arrangements' which 'shall provide for the establishment of joint bodies' having a wide range of environmental tasks.[230] It is worth noting that this Convention has been formally ratified by Albania and Greece and, further, forms part of the *acquis communitaire,* to which all three littoral States are legally committed. Furthermore, it seems reasonable to assume that common management becomes a more acceptable and attractive approach as recognition of the physical unity of the drainage basin gains ground in international law. Indeed, the ongoing evolution and development of the so-called 'ecosystems approach' to the environmental protection of international

[224] *Ibid.,* at 108.
[225] *Ibid.,* at 111-112.
[226] See McCaffrey, *supra,* n. 198, at 168.
[227] Dombrowsky, *supra,* n. 180, at 95 and 99.
[228] See generally, P. Okowa, 'Procedural Obligations in International Environmental Agreements' (1996) 67 *British Yearbook of International Law* 275; P. Sands, 'Environmental Protection in the Twenty-First Century: Sustainable Development and International Law', in R. L. Revesz, P. Sands and R. B. Stewart (eds.) *Environmental Law, The Economy and Sustainable Development.* Cambridge, (Cambridge University Press, 2000) 374; McIntyre, *Environmental Protection of International Watercourses under International Law,* (Ashgate, 2007), at 317-357.
[229] (1992) 31 *ILM* 1312.
[230] Article 9(1) and (2).

watercourses considerably enhances legal recognition of the physical unity of drainage basins and so highlights the need for common management institutions. Indeed, in the context of a discussion on 'the need for ecomanagement' of international watercourses, Kaya concludes that

> 'Under the light of the findings of the examination of the relevant sources of international law in the present study, it seems necessary to establish a treaty regime with an active and continuing revisional element which can only be achieved by setting up a joint water institution with adequate powers and means in each basin'.[231]

Similarly, the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses would appear expressly to encourage watercourse States to enter into common management arrangements. Most significantly, the principle of 'equitable participation', which is set out under Article 5(2) and is closely linked to practical implementation of the cardinal principle of equitable utilisation,[232] suggests the nature and scope of the role potentially to be played by joint mechanisms. The ILC commentary to its 1994 Draft Articles, which preceded the Convention, explains that Article 5(2) involves 'not only the right to utilize an international watercourse, but also the duty to cooperate actively with other watercourse States in the protection and development of the watercourse'[233] and it is persuasively argued that the provision 'not only requires co-ordination but also more significant forms of co-operation'.[234] Indeed, Tanzi and Arcari contend that a State's failure to participate actively in the procedural requirements inherent in equitable participation 'will make it difficult for that State to claim that its planned or actual use is … equitable under Article 5 of the Convention.' Therefore, any invitation to join or participate in a regional water body or river basin commission ought to be considered very carefully by riparian States. Also, in the context of the general obligation imposed upon watercourse States by Article 8 of the UN Convention to cooperate 'in order to attain optimal utilization and adequate protection of an international watercourse', Article 8(2) expressly proposes the use of joint mechanisms and commissions, providing that

> 'In determining the manner of such cooperation, watercourse States may consider the establishment of joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.'

It is interesting to note that the explicit reference to 'the establishment of joint mechanisms or commissions' under Article 8(2) was not included in the 1994 ILC Draft Articles but inserted later, perhaps signalling growing acceptance of the common management approach and growing awareness of its merits.

---

[231] *Supra,* n. 217, at 189.

[232] Article 5(2) provides that

'Watercourse States shall participate in the use, development and protection of an international watercourse in an equitable and reasonable manner. Such participation includes both the right to utilize the watercourse and the duty to cooperate in the protection and development thereof, as provided in the present Convention'.

[233] *Report of the International Law Commission on the Work of its Forty-Sixth Session* (1994), A/49/10/1994, at 220. See also, (1994) 24/6 *Environmental Policy and Law*, at 335-368.

[234] A. Tanzi and M. Arcari, *The United Nations Convention on the Law of International Watercourses* (Kluwer Law International, 2001), at 109.

It is to be assumed that such arrangements would also generally be regarded as effective in facilitating the regular exchange of data and information required under Article 9. Article 9(1) provides that

> 'Pursuant to article 8, watercourse States shall on a regular basis exchange readily available data and information on the condition of the watercourse, in particular that of a hydrological, meteorological, hydrogeological and ecological nature and related to the water quality as well as related forecasts.'

From the kinds of information listed under Article 9(1), it is apparent that regular and effective exchange of such information, facilitated by common management institutions, could have a significant role to play in determining an equitable regime for the use or development of an international watercourse in line with the principle of equitable utilisation as elaborated under Articles 5 and 6 of the Convention, and in ensuring that environmental issues are anticipated, detected and understood.

In addition, Article 21 provides, in relation to the 'prevention, reduction and control of pollution' that '[W]atercourse States shall, individually and, where appropriate, *jointly*, prevent, reduce and control the pollution of an international watercourse that may cause significant harm …' and that '[W]atercourse States shall take steps to harmonize their policies in this connection.'[235] As the 'mutually agreeable measures and methods' envisaged under Article 21 for this purpose include, *inter alia*, '[S]etting joint water quality objectives and criteria',[236] the potential role for technical common management machinery is obvious. Further, Article 24, which deals with the 'management' of international watercourses, provides that '[W]atercourse States shall, at the request of any of them, enter into consultations concerning the management on an international watercourse, *which may include the establishment of a joint management mechanism*.'[237] This provision would appear to suggest the efficacy of using permanent common management institutions for the purpose of planning the environmental protection of the watercourse in particular as it further provides that

> '"management" refers, in particular, to:
> (a) Planning the sustainable development of an international watercourse and providing for the implementation of any plans adopted; and
> (b) Otherwise promoting the rational and optimal utilization, protection and control of the watercourse.'[238]

While the 1994 commentary to ILC Draft Article 24 notes that 'States have, in practice, established numerous joint river, lake and similar commissions, many of which are charged with management of the international watercourses', it emphasises that it 'does not require … that they establish a joint organization, such as a commission, or other management mechanism', and points out that '[M]anagement of international watercourses may also be effected through less formal means, however, such as by the holding of regular meetings between the appropriate agencies or other representatives of the States concerned.'[239] Finally, the Convention envisages a role for common management mechanisms in relation to the settlement of disputes concerning the interpretation or application of the Convention, providing that

[235] Article 21(2), (emphasis added).
[236] Article 21(3)(a).
[237] Article 24(1) (emphasis added).
[238] Article 24(2).
[239] *Supra*, n. 233, at 301.

> 'If the parties concerned cannot reach agreement by negotiation … they may jointly seek the good offices of, or request mediation or conciliation by, a third party, *or make use, as appropriate, of any joint watercourse institution that may have been established by them …*'.[240]

In relation to its merits, most commentators would agree that 'the notion that all riparian states have a community of interests in an international watercourse reinforces the doctrine of limited territorial sovereignty [and thus, equitable utilisation], rather than in any way contradicting that doctrine' and put forward several advantages of such an approach where it is adopted.[241] For example, it 'expresses more accurately the normative consequences of the physical fact that a watercourse is, after all, a unity' and that 'it implies collective, or joint action' and 'evokes shared governance'. Commentators have for some time expressed concern that, in the absence of common management arrangements, the traditional substantive rules of international watercourses law, including the no-harm rule and the principle of equitable utilisation, may be of limited avail in handling problems of water scarcity and quality.[242] For example, one leading commentator could note in 1974 in relation to equitable utilisation that

> 'Yet there is a narrowness in the doctrine that contains the seeds of nationalistic inefficiency. The doctrine of equitable utilisation contemplates cutting the resources of the river basin up into equitable shares, each share to be independently developed by each riparian … However, as admirable as equitable independent development may be, independent development is not likely to make the most productive use of the resource'.[243]

Similarly, according to Tanzi and Arcari,

> '[I]t is against the background of such considerations that the concept of optimal utilisation of international watercourses to be pursued by riparian States *through the integrated management and development thereof* has gained widespread acceptance in legal literature and in the international governmental fora.'[244]

The same authors also note that 'in the modern formulation of the equitable utilisation principle, the goal of sustainable use should be co-ordinated with the more utilitarian paradigm of optimal utilisation', and that

> 'it is apparent that the sound realisation of sustainable use depends on the same co-operation and participation among riparian States in the joint and integrated management of the shared watercourse that we have previously indicated as prerequisites for optimal utilisation.'

They go on to conclude that the procedural requirements inherent in the clearly established legal obligation on States to cooperate can only be facilitated by means of permanent technical institutional machinery:

> '[I]f … exchange of information, consultation and notification are critical for the concrete determination of the substantive entitlement of States in the use of international watercourses, it is patent that the long-term goals of optimal and

[240] Article 33(1), (emphasis added).
[241] McCaffrey, *supra,* n. 198, at 168.
[242] See, for example, Tanzi and Arcari, *supra,* n. 234, at 18; Caflisch, *supra,* n. 218, at 139.
[243] A. E. Utton, 'International Water Quality Law', in L. Teclaff and A. E. Utton (eds.), *International Environmental Law*, (Praeger, 1974) 154, at 182.
[244] *Supra*, n. 234, at 18-21.

> sustainable use of river waters can be adequately served only when procedural co-operation among riparians is carried out on a permanent, rather than on an occasional, basis.'

It would appear however that the effectiveness of establishing common management machinery for the specific purpose of environmental management of international watercourses in particular has been obvious for some time and is becoming ever more so. One commentator noted in 1988 that

> 'The tendency to create new institutions for environmental management is not a new one; it is inherent in the nature of the issues. Among the oldest institutions for the management of an environmental resource are those dealing with the allocation and use of water …'.[245]

He goes on to cite early examples, including the Commission of the River Rhine established at the Congress of Vienna[246] but made operational by the 1868 Treaty of Mannheim, the Danube Commission established in 1878, and the International Boundary and Water Commission of the US and Mexico established in 1889. Indeed, Von Moltke quotes at length from the concluding remarks of a report compiled during a seminar on the work of international river basin commissions organised by the OECD in 1977, which could then observe that

> 'During the last ten years, a marked strengthening of international cooperation has been noted for solving problems of transfrontier pollution in international water basins. More Commissions had been established and yet more were now the subject of negotiations, with the result that there would soon be a Commission responsible for each frontier in OECD countries where bodies of fresh water were exposed to transfrontier pollution.'

The report proceeded to comment on the significance of one common feature of such commissions, *i.e.* that they tended to possess scientific and technical expertise and were usually in a position to provide impartial advice based on such expertise.

Therefore, although the more radical concept of 'shared natural resources', which was based on notions of common property and mooted by several international fora as a means of describing the legal status of some transboundary natural resources,[247] including freshwaters,[248] has been comprehensively rejected by States,[249] some of the 'basic ideas underlying the concept of shared resources and the theory of community of interests are, nonetheless, taking root in the field of the law of international watercourses'.[250] States are simply entering into, in the absence of legal compulsion, practical and effective

[245] K. Von Moltke, 'International Commissions and Implementation of International Environmental Law', in J. E. Carroll (ed.) *International Environmental Diplomacy* (Cambridge University Press, 1988), at 89-91.
[246] For the text of the 1815 Final Act of the Congress of Vienna, see *Droit International et Histoire Diplomatique*, (Paris 1970), Vol. II, at 6.
[247] See, in particular, the 1978 UNEP Governing Council's 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, 17 *ILM* 1097 (1978); Article 3 of the Charter of Economic Rights and Duties of States, UNGA Res. 3281(XXIX).
[248] See, in particular, Sections G and H of the Mar del Plata Action Plan, *Report of the United Nations Water Conference, Mar del Plata, 14-25 March 1977,* UN Doc. E/CONF.70/29 (1977), at 49-55.
[249] S. Schwebel, *Second Report on the Law of the Non-Navigational Uses of International Watercourses,* UN Doc. A/CN.4/332 and Add. 1. Reprinted *Yearbook of the International Law Commission*, Vol 2, No. 1, (1980) 159, at 180-197.
[250] Tanzi and Arcari, *supra,* n. 234, at 22-23.

arrangements which recognise the unitary nature of international watercourses or drainage basins, and the resulting interdependence of riparian States, and the advantages of co-operating to achieve optimal utilisation thereof. Indeed, as Cecil Olmstead could observe in 1967:

> 'Since man cannot change the given geographical facts and has difficulty altering established political boundaries, he must learn to develop co-operatively these international resources for the maximum benefits of all. Although international law … does not require that such co-basin States jointly develop these waters. However, in recognition of their common interest, increasingly such States will voluntarily enter into joint planning and development agreements governing international drainage basins.'[251]

Such bodies vary greatly in terms of their composition and function but almost all possess considerable technical skills and resources and operate under an express mandate to further the environmental protection of the international watercourse and, possibly, the wider natural environment. This trend has become more marked in recent years. For example, the 1994 Agreements on the Protection of the Rivers Meuse and Scheldt create an international commission to facilitate co-operation between the parties for the purposes of the environmental protection of the rivers.[252] Similarly, the 1994 Convention on Co-operation for the Protection and Sustainable Use of the Danube River[253] establishes an international commission[254] to ensure co-operation in order to

> 'at least maintain and improve the current environmental and water quality conditions of the Danube River and of the waters in its catchment area and to prevent and reduce as far as possible adverse impacts and changes occurring or likely to be caused.'[255]

The Danube Commission has more specific functions including, where appropriate, the establishment of emission limits applicable to individual industrial sectors, the prevention of the release of hazardous substances, and the definition of water quality objectives.[256] The practice of the US-Canada International Joint Commission (IJC) is particularly instructive as it is one of the longest established such agencies and provides a comprehensive body of recorded examples of the consideration of environmental impacts in the context of the use of shared freshwaters. The IJC was established by the 1909 Boundary Waters Treaty[257] for the purpose of issuing orders of approval in response to applications for the use, obstruction or diversion of the shared boundary waters which may affect the natural water levels or flows,[258] and may also investigate specific issues if so requested by both States.[259]

[251] *Supra,* n. 220, at 7.
[252] (1995) 34 *ILM* 851 and 859, Article 2(2).
[253] *Yearbook of International Environmental Law* (1994), doc. 16.
[254] Article 4.
[255] Article 2(2).
[256] Article 7.
[257] 1909 Treaty between the United States and Great Britain relating to Boundary Waters and Questions Arising between the United States and Canada, 102 *British and Foreign State Papers* 137.
[258] Articles III and IV.
[259] Article IX. See, for example, International Joint Commission, *Transboundary Implications of the Garrison Diversion Unit* (1977); International Joint Commission, *Water Quality in the Poplar River Basin* (1981); International Joint Commission, *Impacts of a Proposed Coal Mine in the Flathead River Basin* (1988)

The potential role of such joint bodies has been considerably augmented by means of their express mention in a number of important framework conventions relating to international watercourses. Though it does not require the establishment of international joint commissions, the 1997 UN Convention expressly recognises the valuable role they can play by providing under Article 8, which contains the general duty to co-operate, that

> 'In determining the manner of such cooperation, watercourse States may consider the establishment of joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.'[260]

Such joint mechanisms or commissions would be particularly useful in giving effect to the specific measures and methods for preventing, reducing and controlling pollution of an international watercourse suggested under Part IV of the Convention.[261] Indeed, the 2000 Southern African Development Community (SADC) Revised Protocol on Shared Watercourses, which was adopted largely to give effect to key provisions contained in the 1997 UN Convention,[262] sets out a very detailed institutional framework for its implementation.[263]

In contrast to the 1997 UN Convention, Article 9 of the 1992 ECE Helsinki Convention, which concerns bilateral and multilateral co-operation, expressly requires that bilateral or multilateral agreements or other arrangements entered into by the parties pursuant to the Convention '*shall* provide for the establishment of joint bodies'.[264] Therefore, a binding conventional instrument which two of the littoral States (Albania and Greece) have ratified and which all three littoral States are obliged to respect as part of the *acquis communitaire*, would appear to compel States to establish cooperative joint institutional mechanisms. Article 9(2) goes on to state that

> 'The tasks of these joint bodies shall be, *inter alia,* and without prejudice to relevant existing agreements or arrangements, the following:
> (a) To collect, compile and evaluate data in order to identify pollution sources likely to cause transboundary impact;
> (b) To elaborate joint monitoring programmes concerning water quality and quantity;
> (c) To draw up inventories and exchange information on the pollution sources mentioned [above];

[260] Article 8(2).
[261] For example, Article 21(3) proposes that watercourse States introduce the following measures and methods:
'(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.'
[262] The Revised Protocol incorporates all the key substantive provisions contained in the 1997 Convention and its Preamble expressly refers to the Convention, stating at para. 1:
'Bearing in mind the progress with the development and codification of international water law initiated by the Helsinki Rules and that the United nations subsequently adopted the United nations Convention on the Law of the Non-Navigational Uses of International Watercourses.'
[263] Article 5.
[264] Article 9(2) (emphasis added).

(d) To elaborate emission limits for waste water and evaluate the effectiveness of control programmes;
(e) To elaborate joint water-quality objectives and criteria … and to propose relevant measures for maintaining and, where necessary, improving water quality;
(f) To develop concerted action programmes for the reduction of pollution loads from both point sources (*e.g.* municipal and industrial sources) and diffuse sources (particularly from agriculture);
(g) To establish warning and alarm procedures;
(h) To serve as a forum for the exchange of information on existing and planned uses of water and related installations that are likely to cause transboundary impact;
(i) To promote cooperation and exchange of information on the best available technology in accordance with the provisions of article 13 of this Convention, as well as to encourage cooperation in scientific research programmes;
(j) To participate in the implementation of environmental impact assessments relating to transboundary waters, in accordance with appropriate international regulations.'

Article 9 further provides for the participation of non-riparian States directly and significantly affected by transboundary impact in the activities of multilateral joint bodies established by riparians[265] and for the co-ordination of the activities of joint bodies where two or more exist in the same catchment area.[266] Indeed, the 1992 Convention even provides a definition of a 'joint body' which it describes as 'any bilateral or multilateral commission or other appropriate institutional arrangements for cooperation between the Riparian Parties'.[267]

Therefore, it is quite clear that the PPCC falls squarely within the notion of a 'joint body' as envisaged under the 1992 Helsinki Convention and, further, that the functions of a joint body enumerated under the Convention would require the establishment of expert subordinate organs such as that proposed in the form of the Prespa Water management Working Group. Further, it is apparent that practical application of normative principles involving 'multi-layered complexity'[268], such as 'equitable utilisation' and 'sustainable development' which are, almost by definition, somewhat legally indeterminate, can be greatly assisted by means of expert institutional machinery. In a discussion of so-called 'sophist principles', among which he includes equitable utilisation, Franck observes that they 'usually require an effective, credible, institutionalized, and legitimate interpreter of the rule's meaning in various instances …'.[269] Therefore, by establishing and supporting a technically-competent inter-governmental body with responsibility for identifying in detail the environmental effects of any ongoing or planned uses of an international watercourse, and a formal procedural mechanism for presenting its findings and recommendations in this regard, the increasingly common practice of establishing international technical joint commissions almost inevitably serves promote environmental protection of a shared basin.. Although States cannot be bound to adopt a community of

[265] Article 9(3) and (4).
[266] Article 9(5).
[267] Article 1(5).
[268] T. M. Franck, *Fairness in International Law and Institutions* (Clarendon, Oxford, 1995), at 67.
[269] *Ibid.,* at 81-82.

interests approach to inter-State cooperation on the management of international freshwater resources, or to join or participate in related institutional machinery of common management such as permanent technical drainage basin commissions, States increasingly volunteer to do so, which assists them in establishing compliance with their legal obligation to cooperate in the management of the shared waters. Though such institutional arrangements have much to commend them, it seems that potentially one of their most significant contributions is to the effective environmental protection of international watercourses.

In addition, it becomes clear from the above examination of technical institutions for the common management of shared water resources that one of the key functions routinely assigned to such institutions and one of their key contributions to the effective environmental protection of shared waters relates to the conduct of transboundary environmental impact assessments. In relation to transboundary environmental impact assessment, it is worth noting that all three Prespa littoral States have ratified the UNECE Convention on Environmental Impact Assessment in a Transboundary Context,[270] which expresses the determination of the Parties to enhance international cooperation[271] and requires prompt notification of States Parties likely to be affected[272] by a development project and the entry into inter-State consultations with such States Parties.[273] Clearly such requirements suggest the use of technically competent international institutional machinery and Article 8 on 'Bilateral and Multilateral Cooperation' states that

> 'The Parties may continue existing or enter into new bilateral or multilateral or multilateral agreements or other arrangements in order to implement their obligations under this Convention. Such agreements or other arrangements may be based on the elements listed in Appendix VI.'

Appendix VI in turn provides that 'Concerned Parties may set up, where appropriate, institutional arrangements or enlarge the mandate of existing institutional arrangements' and goes on to list 'Elements for Bilateral and multilateral Cooperation', including, *inter alia*:

- 'Institutional, administrative and other arrangements …;
- Harmonization of their policies and measures for the protection of the environment in order to attain the best possible similarity in standards and methods related to the implementation of environmental impact assessment;
- Developing, improving and/or harmonizing methods for the identification, measurement, prediction and assessment of impacts, and for post-project analysis;
- Developing and/or improving methods and programmes for the collection, analysis, storage and timely dissemination of comparable data regarding environmental quality in order to provide input into environmental impact assessment;
- The establishment of threshold levels and more specified criteria for defining the significance of transboundary impacts related to the location, nature or size of proposed activities, for which environmental impact

[270] (Espoo, 1991).
[271] Preamble, para. 3.
[272] Article 3.
[273] Article 5.

assessment in accordance with the provisions of this Convention shall be applied; and the establishment of critical loads of transboundary pollution;

- Undertaking, where appropriate, joint environmental impact assessment, development of joint monitoring programmes, intercalibration of monitoring devices and harmonization of methodologies with a view to rendering the data and information obtained compatible.'

These key functions, identified under the 1991 Espoo Convention as facilitative of transboundary environmental impact assessment, reflect more generally the key elements of transboundary cooperation for environmental protection of shared drainage basins and their dependent ecosystems, and further demonstrate the commitment of the three Prespa littoral States to trilateral cooperation and to the development of appropriate institutional structures.

Similarly, the UNDP-GEF Project Document commits the littoral States and the PPCC to promoting the active participation of the public in respect of the environmental protection of the Prespa Lakes ecosystem and to consultation with interested stakeholders at the catchment basin level.[274] In this regard, it is worth noting that all three littoral States have ratified the 1998 U.N.E.C.E. Aarhus Convention,[275] which anyway now forms part of the environmental *acquis*. Clearly, the three States can more easily and effectively meet their binding legal obligations as regards providing public access to information and ensuring adequate consultation in respect of the environmental protection of Prespa by means of a technically competent water management working group with clear responsibility for the compilation and dissemination of available information and for liaising with the relevant stakeholders and potentially affected interested parties.

5. Practice under the PPCC

It is quite clear that the trilateral inter-State cooperation required under international law has, since 2000, been conducted by means of the PPCC, which includes representatives of the national environmental authorities, the relevant local authorities and interested national NGOs. Pursuant to the commitments made in the Prime Ministers' Declaration, an International Working Meeting was held in Tirana in October 2000, attended by representatives of the national environmental authorities of the three littoral States among others,[276] at which a proposal was adopted to establish the PPCC as a provisional institutional mechanism pending the conclusion of a formal ministerial agreement at a later stage.[277] Therefore, in the absence of such an agreement, which the PPCC has made every effort to promote,[278] the PPCC constitutes the *de jure* and *de facto* institutional mechanism for trilateral cooperation in respect of the Prespa Lakes basin. The decision / recommendation adopted by the International Woking Group required the three

[274] Output 4.2.
[275] Convention on Access to Information, Public participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 25 June 1998).
[276] See, for example, Bogdanovic, *supra*, n. 1, at 42-43, who reports that in the available documents providing a record of the International Working Meeting,

> 'it was stated that "official delegations of the Governments of Albania, Greece and FYR of Macedonia …" met in Tirana'.

[277] See further, Bogdanovic, *supra,* n. 1, at 30-44.
[278] See, for example, the draft Tripartite Agreement on the Protection and Sustainable Development of the Prespa Park Area, prepared by the PPCC.

Governments to nominate the members of the PPCC as soon as possible and set out the structure, mandate, responsibilities and operational guidelines of the Committee. The membership is to include one representative from each of the national environmental authorities, one local community (municipality) representative from each littoral State, one representative of environmental NGOs from each State, and one international observer from the Bureau of the Ramsar Convention. Therefore, the PPCC is clearly intended to represent national interests and to facilitate articulation of national perspectives and concerns.

Under this decision / recommendation, the PPCC's role is largely one of technical cooperation and information management. At its First Regular meeting, held in Skopje in January 2001, the PPCC adopted an Operational Arrangement, setting down a number of rules of procedure to guide the functioning of the Committee. In addition, at its Second Regular Meeting, in Psarades on 19-20 November 2001, the PPCC adopted Terms of Reference and Operational Arrangements for the PPCC Secretariat, which described the Secretariat as a 'technical organ' and 'subsidiary organ' of the PPCC, whose 'primary task is to initiate, support and facilitate the joint activities in the framework of the trilateral Prespa Park process'.[279] Among the specific tasks assigned to the Secretariat under under these documents are included:

- Preparation and provision of assistance with regard to trilateral political and *technical meetings* and scientific symposia …;
- Preparation and provision of assistance with regard to consultations on policy and other relevant matters between stakeholders and with regard to consultations at the policy-preparing and *technical level of the framework of working groups, expert groups* …;
- Collection, dissemination and assessment of information, including on follow-up of joint projects and *compilation, evaluation and promotion of scientific research*;

Therefore, it is quite clear that since the inception of the PPCC, it was understood that technical working groups, such as the proposed Prespa Water Management Working Group, would be necessary for the effective operation of the PPCC and were envisaged within its evolving institutional structure. The recent establishment of the Monitoring and Conservation Working Group (MCWG) further testifies to this intention.

By June 2007, the PPCC has held ten Regular Meetings and two Extraordinary Meetings and in June 2003 adopted a comprehensive Strategic Action Plan for the Sustainable Development of the Prespa Park, the preparation of which it had facilitated. In addition, it has taken a number of *ad hoc* decisions regarding its own operating procedures.[280] Most importantly, at its Fourth Regular Meeting, the PPCC decided to extend its own interim term of operation, a decision that the PPCC Chairman was requested to notify to the environmental authorities in the three littoral States. It is quite clear, therefore, that despite the failure of the States to conclude a formal international agreement providing a clear legal basis for the PPCC, the States have acquiesced to its continued operation as the only institutional mechanism for trilateral cooperation in respect of Prespa.

[279] Bogdanovic, *ibid.,* at 35.
[280] See Bogdanovic, *ibid.,* at 38.

Furthermore, the environmental authorities of each State have agreed to act as the implementing partners for the current UNDP-GEF Project and have approved the key role of the PPCC in the Project Steering Committee. As well as providing evidence of the implicit recognition of the transboundary coordinating role of the PPCC in the State practice of each of the littoral States, this function shows that international inter-governmental institutions, such as UNDP, recognise the PPCC's capacity and *de facto* mandate to act in this trilateral coordinating role.[281] While various fora exist to facilitate cooperation at a variety of levels of public administration[282] and on the basis of specific sectoral interests,[283] these initiatives are largely supported and coordinated by the PPCC.

In the light of the consistent cooperative practice of the three littoral States by means of the process established under the PPCC, one is reminded of the comments of Schwebel in relation to the formation of custom, that 'what states do is more important than what they say'.[284] Indeed, the extent of ongoing trilateral cooperation over Prespa Lakes was recognised at the side event on Transboundary Water Cooperation in South Eastern Europe, organised by UNECE during the 6th Ministerial Conference on 'Environment for Europe', held in Belgrade in October 2007, where the concluding remarks noted that

> 'Progress has been made in recent years [on transboundary water cooperation]. Champions should be identified and experiences and lessons learned should be disseminated. The *very successful cooperation* in Sava and Danube Rivers *as well as in Prespa Lake* should be further enhanced, solidified and replicated.'[285]

Thus, while the meeting acknowledged the progress made on international cooperation over Prespa, it also calls for such cooperation to be enhanced. Therefore, it is abundantly clear from the practice of the States that each considers itself obliged to comply with the customary duty to cooperate in respect of the Prespa Lakes ecosystem. The establishment of the Prespa Water Management Working Group is merely a logical and necessary step in ensuring the effective operation of the PPCC, and thus effective inter-State cooperation.

6. Obligations under E.C. Law

All three Prespa littoral States are bound, to a greater or lesser extent, by the requirements of the E.C. Water Framework Directive,[286] which include, *inter* alia:

[281] See Bogdanovic, *ibid.*, at 68, who describes the UNDP-GEF Project as evidence of 'a new commitment of the three Prespa lakes Littoral States to cooperate'.
[282] For example, the 2007 Protocol on Collaboration, signed by the Mayors of the Municipalities of Liqenes (Albania), Prespa (Greece) and Resen (FYR-Macedonia).
[283] For example, the regular annual meetings of fishery stakeholders in order to set fishing / closed seasons.
[284] S. M. Schwebel, 'The Effect of Resolutions of the U.N. General Assembly on Customary International Law, (1979) *Proceedings of the American Society of International Law*, at 304. See, in support of this view, A. A. d'Amato, *The Concept of Custom in International Law*, (New York, 1971), at 88-91. See generally, H. Meijers, 'On International Customary Law in the Netherlands' in I. F. Dekker and H. H. G. Post (eds.), *On The Foundations and Sources of International Law* (T.M.C. Asser Press, The Hague, 2003) 77, at 83-84.
[285] See Letter from Ms. Myrsini Malakou, Director SPP, and Mr. Demetres Karavellas, CEO WWF Greece, to Mr. Helmut Bloech, DeputyDirector of the Protection of Water & marine Environment Directorate, DG Environment, European Commission, dated 25 July 2008. (Emphasis added)
[286] Directive 2000/60/EC establishing a framework for Community action in the field of water policy, OJ L327/1 (2000), 22 October 2000.

- the requirement to characterise the drainage basin in terms of pressures, impacts and economic analysis;[287]
- the requirement to establish a monitoring network;[288]
- the preparation of river basin management plans;[289]
- the operationalisation of programmes of measures;[290]
- the requirement to meet the environmental objectives of the Directive.[291]

Article 13(3) envisages geographical boundary situations such as that of the Prespa Lakes Basin and provides that

> 'In the case of an international river basin district extending beyond the boundaries of the Community, Member States shall endeavour to produce a single river basin management plan …'.

Clearly, the nature and extent of transboundary cooperation required to jointly prepare and adopt a single river basin management plan strongly suggests the use of highly evolved transboundary institutional machinery to facilitate such cooperation. It is also important to note the core objectives of the Water Framework Directive as elaborated upon in the Recitals to the Directive. Recital 23 states that one of the objectives of the Directive is 'to contribute to the control of transboundary water problems, to protect aquatic ecosystems, and terrestrial ecosystems and wetlands directly depending on them', while Recital 33 provides that

> 'The objective of achieving good water status should be pursued for each river basin, so that measures in respect of surface water and groundwaters belonging to the same ecological, hydrological and hydro geological system are coordinated'.

Most significantly, Recital 35 provides that

> 'Within a river basin where use of water may have transboundary effects, the requirements for the achievement of the environmental objectives established under this Directive, and in particular all programmes of measures, should be coordinated for the whole of the river basin district. For river basins extending beyond the boundaries of the Community, Member States should endeavour to ensure the appropriate coordination with the relevant non-member States. This Directive is to contribute to the implementation of Community obligations under international conventions on water protection and management, notably the United Nations Convention on the protection and use of transboundary water courses and international lakes, approved by Council Decision 95/308/EC and any succeeding agreements on its application.'

This Recital links the purposes of the Water Framework Directive with implementation of the 1992 UNECE Helsinki Convention, Article 9 of which requires States parties to establish or participate in institutional machinery for the common management of shared water resources and provides an indicative list of the functions, largely technical, of such institutional mechanisms.

Looking at the text of the Directive itself, Article 1(e) includes among the purposes of the Directive 'achieving the objectives of relevant international agreements'. Further, Article 3(5) states

[287] Article 5.
[288] Article 8.
[289] Articles 11 and 13.
[290] Article 11.
[291] Article 4.

> 'Where a river basin district extends beyond the territory of the Community, the Member State or Member States concerned shall endeavour to establish appropriate coordination with the relevant non-Member States, with the aim of achieving the objectives of this Directive throughout the river basin district.'

In addition, Article 3(6) provides that 'Member States may identify an existing national or international body as competent authority for the purposes of this Directive.'

The Common Strategy on the Implementation of the Water Framework Directive[292] recognises the critical importance of close cooperation with candidate countries from Central and Eastern Europe on shared river basins and specifically mentions the international conventions for the Danube, Elbe and Oder Rivers. The document suggests that these conventions and the institutional arrangements established thereunder 'may be used as a platform for the co-ordination of the [Directive] implementation activities'.[293] Similarly, a 2006 Decision of the Council of the European Union expressly recognises the particular importance of basins shared between Greece, FYR of Macedonia and Albania and provides:

> 'In order to improve cooperation in European river basins shared between certain Member States and Third Countries, the Commission will participate … in the negotiations aiming at the conclusion of international river basins agreements in relation to river basins:
> (b) shared between Greece on the one hand and Albania, FYROM … on the other hand'

Further, the Annex to the Decision, which sets out 'Negotiating Directives' for any such negotiations provides, *inter alia*, that 'The Commission shall ensure that the agreements are consistent with relevant Community legislation', which would obviously include the terms of the Water Framework Directive. While this Decision only applies directly to the conclusion of formal river basin agreements, it clearly illustrates the priority placed by the Community institutions on the approximation of policies on transboundary waters with the requirements of the Water Framework Directive.

Therefore, at least as regards Greece, as a long-standing Member State of the E.U., there exists a clear and binding obligation under Community law to actively cooperate with Albania and FYR of Macedonia in respect of the protection of the Prespa Lakes ecosystem and, in particular, to support and contribute to the operation and development of the existing institutional structures which can facilitate such cooperation. Having regard to the tendency of the European Court of Justice to look to the recitals of directives to establish their true purpose, with a view to taking a purposive approach to their interpretation and application, and to the Court's willingness to find Member States in 'systemic' non-compliance for failing to comply with the 'spirit and intent' of Community law,[294] it is not unreasonable to suggest that Greece could conceivably be found to be in systemic non-compliance with aspects of the Water Framework Directive if it were to fail to actively support the work of the PPCC and its necessary ongoing institutional development.

[292] Jointly developed by the Member States and the European Commission and adopted by EU Water Directors (Stockholm, 2 May 2001).
[293] *Ibid.,* para. 3.4.
[294] See, for example, CaseC-216/05, *Commission v. Ireland*, re 'persistent and general' failure to comply with the Waste Framework Directive.

Equally, both Albania and FYR of Macedonia, though not yet E.U. Member States, are candidate countries and have concluded Stabilisation and Association Agreements with the E.U.[295] which require gradual approximation with the requirements of the environmental *acquis communitaire.*[296] For example, Article 68(1) of the Stabilisation and Association Agreement concluded between FYR of Macedonia and the E.U. provides:

> 'The Parties recognise the importance of the approximation of the existing and future laws of the Republic of Macedonia to those of the Community. The Republic of Macedonia shall endeavour to ensure that its laws will be gradually made compatible with those of the Community.'

Article 68 goes on to describe the stages for the transition and the process for defining the modalities for the monitoring of the implementation of legislative approximation.

More specifically, Article 103 of the Stabilisation and Association Agreement concluded between FYR of Macedonia and the E.U. states unequivocally that 'The Parties shall develop and strengthen their cooperation in the vital task of combating environmental degradation, with a view to support environmental sustainability'.[297] Article 103(2) further elaborates on the sectoral priorities for such cooperation and states:

> 'Cooperation could centre on [*inter alia*] the following priorities:
> - combating local, regional and cross-border pollution (air, water quality, including waste water treatment and drinking water pollution) and establishing effective monitoring;
> - the environmental impact of agriculture; soil erosion and pollution by agricultural chemicals;
> - the protection of forests, the flora and fauna; the conservation of biodiversity;
> - continuous approximation of laws and regulations to Community standards;
> - international Conventions in the area of environment where the Community is Party [including, for example, the 1992 UNECE Helsinki Convention];
> - cooperation at regional level …'.

Article 103(3) further provides that

> 'cooperation could include [*inter alia*] the following areas:
> - exchange of the outcome of scientific and research development projects;
> - mutual monitoring, early notification and warning systems on hazards disasters and their consequences'.

Therefore, it is quite clear that any national legislation on water resources adopted by FYR of Macedonia subsequent to conclusion of the Stabilisation and Association Agreement would be required to be compatible with the key requirements of the Water

[295] Stabilisation and Association Agreement between the European Communities and their member States of the One Part, and the Former Yugoslav Republic of Macedonia of the Other Part (26 March 2001); Stabilisation Agreement between the European Communities and their Member States, of the One Part, and the Republic of Albania, of the Other Part (22 May 2006).

[296] On Stabilisation and Association Agreements generally, see further A. Gugu, 'Main Features of Stabilization and Association Agreements and the Differences with Europe Agreements', available at http://www.acit-al.org/publications/Research_papers/dec_2003_A_Gugu.pdf

[297] Article 103(1).

Framework Directive and, in the case of any ambiguity, should be interpreted as being consistent with the Directive.

Indeed, the Stabilisation and Association Agreement would appear to clearly commit FYR of Macedonia to transboundary cooperation in respect of shared water resources and, accordingly, Articles 9-11 of the new Macedonian Law on Waters[298] expressly provides for such Cooperation. In particular, draft Articles 9 and 10 cover transboundary river basin planning with Article 9 providing:

> 'For the purpose of establishment and management of international river basin districts with the relevant neighbouring states for river basins which extend beyond the territory of the republic of Macedonia, the state administrative body competent for the area of environment in cooperation with the state administrative body competent for foreign affairs shall seek to establish international river basin districts with the relevant neighbouring states …'.

Article 10(1) provides that 'management of transboundary river basin districts and transboundary waters shall be performed … in accordance with the international treaties ratified by the Republic of Macedonia', while, of even greater relevance for the obligation to cooperate, Article 10(2) provides that

> 'In order to achieve compliance with the objectives of this Law, the state administrative body competent for the area of environment shall undertake activities to coordinate the plans for the management of international river basin districts and the programmes of measures, with the competent authorities of neighbouring states that belong to the same river basin district.'

Similarly, Article 70(1) states that, in respect of a transboundary river basin, 'the state administrative body competent for environment *shall cooperate* with the competent authorities of the relevant countries for the purpose of developing common transboundary river basin management plan'.[299] Therefore, anything less than full cooperation on the part of FYR of Macedonia with the PPCC in respect of basin management planning for the Prespa Lakes, arguably including support for the establishment and working of the PWMWG under the auspices of the PPCC, might be regarded as a breach of its commitments under the Stabilisation and Association Agreement and might even be actionable under Macedonian domestic law, once the proposed Law on Waters has entered into force.

Albania has signed a substantively similar Stabilisation and Association Agreement with the E.U.[300] and even pre-existing relevant national statutory provisions would appear to commit it to pursuing transboundary cooperation in the management and protection of transboundary water resources. For example, Article 20(2) of the 2003 Albanian Law on the Protection of Transboundary Lakes requires that

[298] Proposal dating from October 2007.
[299] (Emphasis added).
[300] *Supra,* n. 295. Article 70 commits Albania to the gradual approximation of its laws with the *acquis communitaire,* while Article 108 expressly requires the Parties to cooperate in the field of environment, and particularly 'on priority areas related to the Community acquis in the field of environment'. See further, V. Kuko, 'Stabilisation and Association Process in Albania and Institutional Framework', available at http://www.acit-al.org/publications/Research_papers/dec_2003_V_Kuko.pdf

> 'The management plans should comply with the international conventions on the lake protection and management, as well as be in compliance with the agreements signed with the neighbouring countries.'[301]

As Albania is a party to the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and a signatory to the 1997 U.N. Watercourses Convention, it is quite clear that Albanian law requires the State to cooperate with the other littoral States and, to this end, to establish and participate in the requisite institutional machinery.

In addition to the obligations imposed, directly or indirectly, upon all three Prespa littoral States by the requirements of the Water Framework Directive, a range of further Community measures impose obligations, with which the establishment and functioning of the PWMWG under the auspices of the PPCC can be expected to assist in facilitating compliance. Such measures include the Wild Birds Directive,[302] the Habitats Directive,[303] the EIA Directive,[304] the SEA Directive,[305] the Directive on Public Access to Environmental Information,[306] and the Directive on Public Participation.[307]

7. Conclusions on the Legal Mandate of the PWMWG

In relation to the legal mandate for the Prespa Water Management Working Group (PWMWG), one needs only to consider the central role of the PPCC in facilitating trilateral cooperation on water management on the basis of the Water Framework Directive including, for example, the holding of the first meeting of the respective water authorities in Albania in Autumn 2006 as a side event to the 9th Regular Meeting of the PPCC. At this meeting, the participants agreed on the need for the establishment of a trilateral working group on water management issues, which would include, *inter alia*, water management authority officials from each littoral State.[308] This meeting also agreed on the need to develop a transboundary monitoring system in the Prespa basin, which is now in operation by means of the MCWG. The same letter points out that the current UNDP-GEF project foresees a number of outputs in respect of water management, including

> 'the strengthening of institutional cooperation on water issues, the development of water management plans in the two recipient countries [Albania and FYR of Macedonia] and the formulation of an integrated water management plan for the basin'.[309]

Clearly, these outputs, which have been agreed by the authorities in the three littoral States, strongly suggest the need for and key functions of the proposed PWMWG. In addition, the first meeting of the Greek-Albanian permanent commission on

[301] Law No. 9103 (10 July 2003). See Bogdanovic, *supra,* n. 1, at 68-69.
[302] Dir. 79/409/EEC, 2 April 1979.
[303] Dir. 92/43/EEC, 21 May 1992.
[304] Dirs. 85/337/EEC, 27 June 1985 and 97/11/EC, 3 March 1997.
[305] Dir. 2001/42/EC, 27 June 2001.
[306] Dir. 2003/4/EC, 28 January 2003.
[307] Dir. 2003/35/EC, 26 May 2003.
[308] See Letter from Ms. Myrsini Malakou, Director SPP, and Mr. Demetres Karavellas, CEO WWF Greece, to Mr. Helmut Bloech, DeputyDirector of the Protection of Water & marine Environment Directorate, DG Environment, European Commission, dated 25 July 2008.
[309] *Ibid.*

transboundary freshwater issues, established under a Greek-Albanian Agreement ratified in October 2005, took place in April 2008. Obviously, for all the reasons set out above, this commission is required to undertake transboundary water management on the basis of the requirements of the Water Framework Directive, including joint river basin management planning, which suggests the need for a technical working group, such as the proposed PWMWG, with accumulated expertise on the Prespa basin.

SITUATIONAL ANALYSIS OF WATER MANAGEMENT IN THE PRESPA LITTORAL STATES

A number of studies have been conducted on the unique hydrological and ecological system of the Prespa-Ohrid drainage basin, but the Prespa Lakes have been less well scientifically researched than Lake Ohrid and such studies as have examined Prespa Lakes system have tended to focus on how much water its contributes to Lake Ohrid. Therefore, a number of uncertainties persist despite some useful research including, projects funded by the World Bank and UNESCO and, in particular, the Traborema Project and the ongoing trilateral NATO-funded Project on 'Sustainable Management of International Waters – Prespa Lake'. For example, it is not entirely clear how much water loss is due to human activities, including agricultural irrigation and the abstraction of groundwater, and how much due to natural conditions, such as geological or climatic changes (including evaporation). It would appear that measuresment of groundwater abstraction and of precipitation in the basin is entirely inadequate. Also, though eutrophication is occurring, it is not clear to what extent this is due to decreasing water levels or to pollution from agricultural run-off and inadequately treated waste water. Similarly, despite the ongoing granting of fishing concessions and some illegal fishing, there is no systematic monitoring of fish populations or analysis of fish caught. In addition, there is a marked lack of data in respect of the socio-economic vulnerability of the Prespa communities should sectoral interests, such as tourism, fisheries or agriculture, be adversely affected. For example, Prespa is the second busiest tourist destination in FYR of Macedonia after Ohrid.

The fact that a number of major projects have recently been mooted with possible impacts on the Prespa Lakes ecosystems, such as the Maharishi University project, Aqua Pura project or plans to rehabilitate the irrigation channel in order to divert waters from the Devoli River to the Korce Plains for agricultural purposes, it is imperative that a fuller understanding of the dynamics and vulnerability of the ecosystem de developed.

Clearly, there is a need for systematic trilateral coordination of projects, in order to ensure that overlap or duplication is avoided and that critical gaps in the available data are addressed.

FYR of Macedonia

The new Water Law was adopted in April 2008. The first phase of implementation commenced with the entry into force on 4 July 2008 of Chapter III on planning and Chapter XI on organisational / institutional set-up, will transfer responsibility for water resources management from the Ministry of Agriculture to the Ministry of Environment and Physical Planning (MEPP), with full responsibility to be transferred by February 2010. Under this phase, the National Water Council will be established and will have responsibility for adopting the National Water Strategy. Adoption of the National Water Strategy will pave the way for subsequent preparation of the Water Master Plan, which is due to be adopted within four years of entry into force of the Law. Nominations for the National Water Council are currently pending from the relevant Ministries. In addition, four River Basin Management Districts (RBMDs) have been identified, which will be administered by three River Basin Management Bodies (RBMBs). The RBMBs will

replace the existing local level water management organisations which are very heavily indebted. RBMBs must be established within four years of the adoption of the Water Law and each RBMB will prepare a River Basin Management Plan, which must be finalised within six years of the adoption of the Water Law. It will also be possible, where appropriate, to prepare sub-basin management plans. As regards RBMPs for transboundary basins, it is proposed to prepare a draft RBMP for the River Vardar basin, shared between FYR of Macedonia and Greece, which would pilot the transboundary river basin management planning process and serve as a template for the development of further transboundary RBMPs, including one for the Prespa / Ohrid basin. The Water Law will come fully into force on 1 June 2010 and will facilitate full transposition of the E.C. Water Framework Directive and approximation with seven further E.C. environmental and water related directives, including the Nitrates Directive, the Bathing Waters Directive, the Drinking Water Directive, *etc.* GTZ is currently assisting the Government of FYR of Macedonia to compile a compendium of by-laws necessary for and relevant to the Water Law.

Spatial plans have already been adopted for most of the territory of FYR of Macedonia, including the four RBMDs. Each spatial plan contains specific provisions in respect of the protection of natural and cultural heritage requiring that these values are taken into consideration in the preparation and adoption of RBMPs. In this regard, the RBMBs will be required to coordinate closely with the Spatial Planning Unit within the MEPP. Currently, the Regional Spatial Plan (RSP) for the Prespa / Ohrid Region is nearing completion. The draft makes express reference to the need to gather further data on water resources in the region and to develop further methodologies for the collection of such data. Also, the Local Spatial Plan for the Municipality of Resen, which is due to be completed during 2009, is currently being developed in parallel with the RBMP. According to the Spatial Planning Law and the Water Law, all spatial plans must require that the objectives of any RBMP be taken into account and given effect in spatial development policies and decisions. Conveniently, it would appear that the area of the Prespa / Ohrid basin within the territory of the FYR of Macedonia corresponds almost exactly with the boundaries of one of the provisionally proposed RBMDs.

Existing institutional structures for protection of water quality are generally regarded as sound. The water quality monitoring system has been established for many years and monitors a range of parameters, including chemical and bacterial pollutants and metals. There is a need for this monitoring system to be coordinated with the development of the National Water Strategy and the Water Master Plan. However, it is necessary to develop a national institutional capacity to analyse water samples, as there is no authorised laboratory in FYR of Macedonia currently. In respect of water monitoring and analysis, funding is a constant constraint. Even if monitoring or analysis equipment were to be donated, significant funding would be required for maintenance and recalibration of such equipment and training of operatives. Though the new Water Law assigns responsibility for particular activities to certain institutions, no funding for such institutions is prescribed under the legislation. Similarly, National Parks in FYR of Macedonia are expected to be self-financing, which limits the range and extent of conservation activities in which they can afford to become involved Also, fund-raising becomes a distraction and diverts resources and energy away from core conservation activities. This seriously affects the sustainability of donor-funded conservation projects.

As regards transboundary cooperation, Articles 9-11 and 70 of the new Water Law commits FYR of Macedonia to cooperate with co-basin States in respect of transboundary waters. These provisions give legislative effect to requirements in respect of transboundary cooperation contained in Articles 1 and 3 and the Recitals of the Water Framework Directive, to which FYR of Macedonia has committed to approximate its laws under Articles 68 and 103 of its Stabilisation and Association Agreement with the EU. Though FYR of Macedonia has not yet ratified the 1992 UNECE Helsinki Convention, it is clearly committed to ratification and recognises that the Convention forms part of the environmental *acquis*, to which it is committed under the Stabilisation and Association Agreement. The Government of FYR of Macedonia would appear to be solidly committed to transboundary cooperation in respect of shared waters. For example, in 2004 it concluded an agreement with Albania relating to Lake Ohrid establishing the Lake Ohrid Watershed Committee (LOWC), which includes representatives of central government (including the Ministries of Environment, Agriculture and Foreign Affairs), local government, the scientific community, and the NGO community. The LOWC is assisted by a number of supporting bodies. including the Watershed Management Committee, the Monitoring Taskforce, and a joint Secretariat. It facilitates a high level of technical cooperation, including annual joint monitoring and analysis of the water quality, in respect of which the LOWC has adopted two Joint Protocols on Monitoring. However, financial sustainability remains a problem for the LOWC. In addition, FYR of Macedonia remains committed at the ministerial level to the 2002 draft tripartite Agreement on the Protection and Sustainable Development of the Prespa Park Area, prepared by the PPCC. There are earlier agreements related to transboundary water resources entered into by the former Yugoslavia with Albania in 1956 and with Greece in 1972, as well as a bilateral agreement concluded between FYR of Macedonia and Greece on cooperation in the field of environment, but these have fallen into disuse and the institutional structures provided for thereunder have not entered into operation. In recent weeks, the Ministry of Environment has announced plans to establish a technical working group on Prespa Lakes to be chaired and coordinated by the Deputy Minister for Environment. The establishment of this working group could certainly help to facilitate transboundary cooperation and communication in respect of protection of the Prespa Lakes ecosystem.

Greece

Under the previous legal regime (1987 Water Law), responsibility for water resources management in Greece was fragmented, with the Ministry for Development having responsibility for issues of water quantity and the Ministry of Environment and Public Works having responsibility for issues of water quality. Under the 2003 Water Law (Law 3199/2003), all responsibility for water passes to the Ministry of Environment and Public Works, which has established a new body, the Central Water Agency (CWA), to take overall responsibility for water policy. However, though the 2003 Water Law is intended to transpose and facilitate implementation of the E.C. WFD, it appears that the constitutional basis of the CWA remains somewhat unclear and that it suffers from a lack of capacity pending the transfer of staff from the Ministry for Development. The Ministry of Development has commenced the process of preparing Water Management Plans (WMPs), but this has not been carried out exactly in accordance with the

requirements of the E.C. WFD. For example, the draft WMP for the region of Western Macedonia is incomplete as it includes a description of water uses but contains no programme of measures and says little about transboundary water management. Also, it is now unclear which Ministry / Agency will have overall responsibility for the completion and adoption of the WMPs.

At the regional level, Regional Water Directorates are established under the chairmanship of the General Secretary of the Region, which have the key role in the implementation of the WFD. Currently, the Regional Water Directorate for Western Macedonia is working with old water management plans but by the end of 2009 the new Water Management Plan for Western Macedonia is expected to have been adopted, which will facilitate the designation of river basin districts, identified on the basis of the requirements set out in the E.C. WFD, and the subsequent adoption of River Basin Management Plans. Generally, this will involve taking a larger view of basin areas than had been taken under the old water management plans. However, it is not at all certain that adequate RBMPs, containing programmes of measures regarding remediation, restoration, nature conservation, *etc.*, can realistically be adopted by the end of 2009. Under the draft new Water Management Plan for Western Macedonia, Greek Prespa / Prespa Park will constitute a single river basin district. The new Water Management Plan will consist mainly of measurements, targets and objectives, and data on the state of waters, levels and nature of water uses, the water available and waters allocated. It will be used by the Regional Water Directorate as the basis for issuing permits in respect of water pollution and water abstraction. While some data and studies will be collated by the Regional Water Directorates, other data will be collated by the Central Water Agency, which will have overall responsibility for compiling all such data and making it available to the Regional Water Directorates in order that they can prepare River Basin Management Plans on the basis of such data. The Central Water Agency has overall responsibility for water policy under the 2003 Water law and will provide Regional Water Directorates with a format / template, to which the River Basin Management Plans will have to correspond. The Regional Water Directorates retain legislative responsibility for adoption of RBMPs but, as some RWDs were making poor progress in this regard, the CWA has stepped in to ensure effective and consistent implementation of the WFD. Also, it is recognised that there exist wide discrepancies between RWDs in terms of the capacity to prepare RWMPs, with the RWD for Western Macedonia among the less well resourced. The CWA has very recently issued guidance to RWDs on effective WFD implementation having regard to local conditions. However, it is generally acknowledged that there is inadequate funding to implement the 2003 Water Law effectively. In particular, the resources are not yet in place to provide critical infrastructure, to ensure comprehensive measurement of water conditions or to implement necessary projects and studies.

In relation to Prespa waters, the key institutional body is the Management Body for Prespa National Forest, which includes a Wetland Management Committee which makes decisions in respect of the water levels for Mikri Prespa. The wetland Management Committee provides evidence of cross-sectoral and inter-ministry coordination as it includes representatives of the Society for the Protection of Prespa (SPP), of the Regional Water Directorate for Western Macedonia, which operates under the authority of the Ministry for Environment, and of the Management Body for Prespa National Forest, which operates under the authority of the Ministry for Development. The targets for

maximum and minimum water levels in Mikri Prespa are agreed with all stakeholders, taking account of a range of needs, including human needs, agricultural irrigation and environmental / ecological requirements. The Management Body for Prespa National Forest is also engaged in a five-year plan to purchase / expropriate a number of littoral fields / sites in order to restore ecologically important wet meadows.

A system of monitoring exists in Greek Prespa, with samples collected in Megali Prespa every three months from three points and from border points in the middle of the lake, and samples collected every three months from two points in Mikri Prespa. The samples are analysed for a range of organic compounds and toxic wastes by the Management Body for Prespa National Forest / Prefecture of Florina, who report to the Ministry for Environment and the Ministry of Foreign Affairs in Athens. However, there is no formal mechanism for sharing this data with the other littoral States, though informal communication takes place through SPP. There is an acknowledged need for early exchange and efficient of such information, early notification of problems arising, and early and proactive cooperation, in order for the littoral States to be able to take effective mitigating measures. It is also accepted that more monitoring stations are required at strategic points throughout the lakes and that better equipment and infrastructure would improve monitoring significantly. As part of the ongoing reform of the water sector in order to implement the E.C. WFD, a comprehensive monitoring system is planned for all surface water bodies. The details of this monitoring programme are due to be published before the end of 2008 by the Hellenic Centre for Marine Research.

In respect of fisheries, there are 20-25 licensed fishermen / enterprises in Greek Prespa, who may fish all year round except for a 40 day closed season which corresponds with the spawning season. The closed season is normally agreed at an annual meeting with the relevant authorities for the other littoral States but no such meeting was held this year on account of the difficult political situation existing between Greece and FYR of Macedonia. There are no restrictions as to 'total allowable catch' but restrictions to apply to professional fishermen as regards the size of fish taken. These restrictions do not apply to those fishing for sport / pleasure. The management of fisheries is the responsibility of the Agriculture Department of the Prefecture of Florina but there are no dedicated full-time staff or resources allocated to this function. Though the general state of fisheries is regarded as quite good, there is no established process for monitoring fisheries and the authorities rely on fishermen to report any problems. No such problems have been reported in recent years.

As regards agricultural practices, progress has been made in the last 10 years in respect of the management of the use of fertilisers and related nutrient run-off. There has been a significant increase in recent years in the use of drip-irrigation for bean production and there is a plan to extend this practice to all bean production over the next few years. There has also been an increase in organic farming practices. Generally, the Greek authorities do not perceive there to be any significant tension between the existing bean farming and the ecological requirements of the Prespa Lakes system.

In respect of water pollution caused by untreated waste water, the Greek authorities are currently building one waste water treatment plant and waiting for two more treatments plants to receive approval. The lack of waste water treatment infrastructure which

corresponds to international / European standards in the other littoral States is perceived to be a problem by the Greek authorities.

A number of threats to the Prespa ecosystem are presented by activities carried out in Greek Prespa. For example, the excavation of sand from the isthmus presents a risk that the isthmus might be washed away due to hydo-pressure, as Mikri Prespa is 10 metres higher than Megali Prespa. Also, the building of small hydropower stations in the Prespa basin has been discussed on occasion.

The Greek authorities would appear to be involved in transboundary cooperation on an *ad hoc* basis. For example, a meeting of the Greek / Albanian Bilateral Commission on Transboundary Waters was convened recently by the Greek Ministry of Foreign Affairs to discuss management of the Devoli River. Clearly, refurbishment of the existing irrigation canal could cause significant silting up of Mikri Prespa, as it has done in the past. Also, there are plans in place to cooperate with Bulgaria, as an E.U. Member State, in respect of transboundary waters. Therefore, Greece would appear to be more prepared to enter into arrangements for bilateral cooperation than trilateral cooperation. Also, under the 2003 Water Law, the National Water Committee is tasked with taking decisions on pursuing cooperation with third States over water resources, but this body has never convened, despite being required to do so every year under the 2003 Water Law. There would appear to be no concrete plans for transboundary cooperation in respect of Prespa, over and above the ongoing cooperation facilitated by the Prespa Park Coordination Committee (PPCC). Whereas the Regional Water Directorate has responsibility for using all relevant data and studies in the preparation of the River Basin Management Plan, it only has access to some studies from Albania and none from FYR of Macedonia. In respect of Prespa, it would require data on meteorological conditions, water levels, groundwater resources, point and diffuse pollution sources, *etc.* from each of the littoral States. Despite the requirement in the E.C. WFD for member States to cooperate with co-basin States, there is no provision relating to such cooperation in the draft new Water Management Plan for Western Macedonia.

Albania

A draft of a new Water Law for Albania has been prepared and has been distributed to key stakeholders for comment. It is expected that comments will be received and the draft finalised by the end of 2008 in order that the Law can be presented to Parliament in early 2009. The new Water law will replace the existing legal regime created by Law 80/93 on Water Resources. The draft Water Law has been prepared pursuant to Albania'a pre-accession commitments and is intended to facilitate full transposition and implementation of the E.C. WFD. Responsibility for water resources management has already been transferred from the Ministry of Public Works and the Ministry of Agriculture to the Ministry of Environment, but some uncertainty remains in relation to the allocation of key functions. Ultimate responsibility for water policy rests with the National Water Council, appointed and chaired by the Prime Minister.

Six River Basin Districts have already been identified and designated under Albanian law but the new Water Law is intended to facilitate the functioning of the River Basin Authorities in accordance with the requirements of the WFD. Each River Basin Authority is headed by the Prefect of the relevant Region and has representation from local authorities and the business community. The Semani River Basin Authority, which includes the area of Albanian Prespa, is chaired by the Prefect of Elbasan. Therefore, the River Basin Authorities can be expected to enjoy considerable political and administrative authority. The River Basin Authorities currently have responsibility for administering the utilisation of water resources, some water quality and environmental issues, the excavation of aggregates, *etc.* In discharging their functions, they must cooperate closely with the Regional Directorates of Irrigation and Drainage. However, it is acknowledged that they are currently not adequately financed as they are not income-generating. The area of Albanian Prespa falls within the Semani River Basin District. Also, the various responsibilities of the River Basin Authorities have been described as vague and unclear under the current law. However, it is not unlikely that implementation of the new Water Law might experience delays. The new Law is based on the National Water Strategy, implementation of which has not yet commenced 10 years after its adoption.

However, somewhat confusingly, the Albanian Prespa National Park Management Committee comes under the management of the Forestry Directorate of the Regional Council of Korce, and has responsibility for all aspects of a 5,000 hectare area of land and water, including the management of water resources, forestry resources, *etc.* Similarly, fisheries are managed by the Directorate of Fisheries, under the Ministry of Environment. Likewise, cultural amenities are the responsibility of the Ministry of Culture, which currently permits tourists to visit certain sites against the wishes of the Prespa National Park Management Committee, due to nature conservation concerns. Therefore, there is obvious potential for conflict among these various agencies.
The River Basin Authorities have no responsibility for transboundary cooperation under the current Albanian Water Law (Law 80/93) or the Law on Transboundary Lakes. Water quality issues in respect of transboundary waters are the responsibility of the Regional Environment Agencies / Inspectorates. Also, the River Basin Authorities have no formal relationship with the currently existing bilateral commissions, on which Albania is only represented at central government level. However, Article 20(2) of the 2003 Albanian Law on the Protection of Transboundary Lakes requires the Albanian authorities to ensure

that management plans for such water bodies must be compliant with the requirements of general international conventions and of any existing bilateral or multilateral agreements.

As regards transboundary cooperation, there had been an international agreement between the former Yugoslavia and Albania relating to cooperation on shared waters, but this arrangement has fallen into disuse. The Albanian Vice-Minister for Environment has recently sought to reactivate and renew this process with FYR of Macedonia. The Greek / Albanian bilateral commission on transboundary waters met in November 2007 to discuss the Devali River. Albania favours the conclusion of two separate bilateral agreements with Greece and FYR of Macedonia, which would be general in character covering all transboundary water management issues arising. Albania envisages the initial establishment of informal bilateral commissions, which would coordinate with a body such as the PPCC over issues relating to Prespa, and that representatives of the PPCC would participate in each commission. Though such commissions are not yet functioning, Albania believes that it has secured clear commitments from each of the other littoral States. Once functioning, each commission would draft and propose a formal agreement to be approved by the relevant Parliaments. Since 2001, Albania has developed and circulated model draft agreements to the two other littoral States, but Greece suggested that it would be better to first establish a commission to develop an agreement on the basis of its functions and experiences. One difficulty with this approach is that the Greek / Albanian Joint Commission has no dedicated funding. The 2001 draft agreement currently serves as the basis for negotiations with other neighbouring States, including Bosnia Herzegovina and Montenegro. Therefore, a total of three bilateral commissions exist in theory – Albania / FYR of Macedonia, Albania / Greece, Albania / Montenegro – but, although members have been nominated, they are not yet functioning and two have not yet met. The Albania / Greece joint commission has met once, in November 2007, in relation to the Devoli River. It is not entirely clear whether the new Water Law would authorise new bilateral or trilateral cooperation initiatives. Also, there is a severe shortage of personnel in the Ministry of Environment, including a mere three people in the Water Department, to assign to bilateral / trilateral cooperation initiatives.

Increased agricultural production in the vicinity of Albanian Prespa is contributing to the nutrient loading of Megali Prespa. Also, since 1990 unregulated tree felling and a lack of regeneration of forests has impacted the waters of Megali Prespa, though the position has improved somewhat since 1999. In recent years fishing has been regulated quite effectively in Albanian Prespa.

TERMS OF REFERENCE FOR THE PRESPA WATER MANAGEMENT WORKING GROUP (PWMWG)

Background

At a general level, the three States in the Prespa Lakes Basin have agreed to jointly address transboundary water management priorities both at the national and transboundary level. Further, through endorsement of the UNDP-GEF Prespa regional project, the States called for regular exchange and assessment of available water management information, including: data on monitoring and quantification of water resources; data on current use and impacts on water quality and quantity; the identification of water quality, quantity and in-stream flow objectives; and identification of a programme of measures to achieve these objectives (Output 1.3.1). It also requires the promotion of best practice in respect of identifying and recommending environmental / ecosystems flow requirements and fishery management policies (Outputs 1.2.1 and 1.2.2). In addition, it calls for the improvement of watershed management and coordination capacity at municipal and commune level through the provision of support to national cross-sectoral resource management bodies, *i.e.* Prespa Watershed Management Council (FYR of Macedonia), Prespa Park Management Body (Greece), and Prespa National Park Management Committee (Albania) (Output 1.4). Each of these outputs strongly suggests the need for a subordinate technical body to support the work of the PPCC.

More specifically, the Project Document calls for the production of a detailed plan for the PPCC's institutional maturation on the basis of 'international lessons learned on transboundary water management' (Output 4.1.1). International experience in respect of transboundary cooperation over shared international waters and the coordinated and effective management of such waters points clearly to the central role of permanent technical institutional machinery. The Project Document further calls on the project to 'bolster the PPCC's capacity by strengthening the collaboration among sub-groups of PPCC members' (Output 4.1.2) and to 'strengthen the PPCC members' capacity to organize discussions, guide deliberations, and come to informed decisions' (Output 4.1.3).

Accordingly, the Project Document stipulates the establishment of the Prespa Water Management Working Group (PWMWG), which will operate under the auspices of the PPCC and will seek to assist the implementation of the principles of integrated river basin management contained in the E.C. Water Framework Directive (Output 4.2). An indicative list of functions is provided, including to:

(a) Discuss the necessary measures and activities for the implementation of the EU Water Framework Directive (2000/60) and adjust to the specific local needs, conditions, and environmental objectives of the Prespa Basin;
(b) Promote the active participation of the public and carry out consultations with the interested stakeholders at the catchment basin level;
(c) Prepare a work plan towards joint water management in the Prespa Park Area;
(d) Identify and propose the appropriate operational arrangements and necessary supportive structures and processes for each country to implement an agreed work plan;

(e) Propose a programme of measures in each country for integrated lake basin management;
(f) Propose and prepare joint projects and identify suitable European and National funding sources.

The Project Document provides that GEF funding 'will catalyse the operation of this group for the first three years, whereupon the PPCC will have secured another source of funding for the working group'.

The current proposal for terms of reference specifies the role and functioning of the PWMWG during the course of the UNDP-GEF Project. However, it is envisaged that the PWMWG will continue to play a significant role in support of the PPCC beyond the lifetime of the Project. The PWMWG's subsequent evolution will be determined during the course of the Project, having regard to the institutional maturation of the PPCC. The current proposal for terms of reference is based on a variety of sources, including:

- the Terms of Reference of the PPCC Monitoring and Conservation Working Group (MCWG);
- the PWMWG functions identified in the UNDP-GEF Project Document;
- the Terms of Reference of the River Basin Management Expert Group (RBM EG) of the International Commission for the Protection of the Danube River (ICPDR);
- the Terms of Reference of the Pressures and Measures Expert Group (PM EG) of the ICPDR;
- the Rules of Procedure of the Sava Commission;
- Articles 5-9 of the Agreement for the Protection and Sustainable Development of Lake Ohrid and its Watershed (re the Lake Ohrid Watershed Committee);
- the tasks identified in respect of joint bodies established for the management of shared drainage basins under Article 9(2) of the 1992 UNECE Convention on the Protection and Use of Transboundary Rivers and Lakes.

TERMS OF REFERENCE

PRESPA WATER MANAGEMENT WORKING GROUP (PWMWG)

Principles

1. In the exercise of its functions, the PWMWG shall respect and be guided by the principles of sovereign equality, territorial integrity, joint benefit to the littoral States, good faith, mutual respect for national laws, institutions and organisations, and shall act in accordance with the requirements of the *acquis communitaire*. PWMWG practice and procedure shall at all times be based on relevant international best practice.

2. The PWMWG shall confine itself to discussion of technical issues concerning water management identified in these Terms of Reference or referred to it by the PPCC.

3. The PWMWG shall adopt an 'ecosystems approach' to water management issues in the Prespa Basin.

4. Individual members of the PWMWG shall endeavour at all times to act in good faith and independently of national, local or sectoral interests in furtherance of the environmental protection and sustainable development of the Prespa ecosystem. Individual members shall avoid and/or disclose any conflict of interest arising where they are in any way directly or indirectly interested in any matter being considered by the PWMWG.

Responsibilities

5. The PWMWG is an expert body of the PPCC and operates under the auspices and authority of the PPCC. These Terms of Reference provide a mandate to the PWMWG to take action in the areas described below. These Terms of Reference also provide guidance to the work, which the PWMWG is expected to undertake, and to its general working arrangements.

6. The overall responsibility of the PWMWG will be to provide expert technical support to the PPCC, primarily by ensuring that all available water management information required by the PPCC for the carrying out of its functions is presented to the PPCC in an agreed and accessible manner having regard to international best practice and the requirements of the E.C. Water Framework Directive. The PWMWG will also assist the PPCC in identifying and obtaining the water management information required for policy-making purposes.

7. The overall objective of the PWMWG is to provide guidance and coordination to PPCC activities related to the implementation of the E.C. Water Framework Directive in the Prespa Basin and those related objectives of the PPCC.

8. Specifically, the PWMWG will:

(a) Support the work of the Prespa Park Coordination Committee in the preparation of discussion / decision papers for PPCC members, which set out issues for discussion in clear language (Output 4.1.3);
(b) Assist relevant national competent authorities with implementation of the E.C. Water Framework Directive in the context of the specific local needs, conditions, and environmental objectives of the Prespa Basin (Output 4.2), including provision of support to national and transboundary river basin management planning, pursuant to the requirements of the E.C. Water Framework Directive;
(c) Promote active participation of the public and consult with interested stakeholders at the catchment basin level (Output 4.2);
(d) Facilitate, in cooperation with the MCWG, the regular and ongoing exchange and assessment of available water management information (Output 1.3.1), including:
    a. Data on monitoring and quantification of water resources
    b. Data on current water use and discharge and impacts on water quality and quantity
(e) Elaborate appropriate joint emission limits for waste water and joint water quality, quantity and in-stream flow objectives. Identify programmes of measures to achieve these objectives, including action programmes for the reduction of pollution from both point sources (*e.g.* municipal and industrial sources) and diffuse sources (particularly from agriculture). Evaluate the effectiveness of such programmes.
(f) Facilitate, in cooperation with the MCWG, the establishment of data sharing mechanisms and agreements, including:
    a. Drawing up inventories on pollution sources
    b. Establish warning and alarm procedures
    c. Mechanisms to facilitate cooperation and exchange of information on best available technology and international best practice
    d. Mechanisms to facilitate cooperation in scientific research programmes
(g) Participate in the implementation and evaluation of environmental impact assessments relating to transboundary waters, in accordance with appropriate international standards.
(h) Operate as a forum to share information on existing or planned uses and current or potential issues that could affect the ecological character of the Prespa Basin so as to cause transboundary impact, and discuss possible remedial actions and solutions.
(i) Support the work of the PPCC Monitoring and Conservation Working Group (MCWG) by identifying key risks to the Prespa Lakes ecosystem and priority areas for action, as well as gaps in currently available data.
(j) Liaise with and support national cross-sectoral resource management bodies (Output 1.4), including:
    a. Prespa Watershed Management Council (FYR of Macedonia)
    b. Prespa Park Management Body (Greece)

c. Prespa National Park Management Committee (Albania)

(k) Liaise in respect of technical matters with the Lake Ohrid Watershed Committee.

(l) Identify and recommend environmental / ecosystems flow requirements (Output 1.2.1)

(m) Identify and propose fishery management policies (Output 1.2.2)

(n) Assist in preparation of a work plan towards joint water management in the Prespa Basin area (Output 4.2), which would, *inter alia*:

a. Identify and propose appropriate operational arrangements and necessary supportive structures and processes for each littoral State to implement an agreed work plan;

b. Propose a programme of measures in each littoral State for integrated lake basin management;

c. Propose and prepare joint projects and identify suitable European, national and international funding sources.

(o) Facilitate better understanding of the law and policy context for water management activities, including analysis of and exchange of information on relevant E.C. legislation, national law, international law and standards on transboundary waters and protected areas.

(p) Facilitate, in a spirit of cooperation, transboundary fact-finding missions in order to assess issues or activities that may pose a threat to the Prespa Basin ecosystem.

(q) Identify options for the sustainability and institutional maturation of the PWMWG beyond the lifetime of the project if deemed necessary.

Membership

9. The PWMWG will consist of a total of 17 members, including:

a. one government representative (central government or, preferably, regional authority / directorate) of each littoral State,

b. one local authority (commune / municipality) representative from each littoral State,

c. one representative from the NGO sector from each littoral State,

d. one representative of sectoral interests (agriculture, forestry, fishing, tourism or industry) from each littoral State, and

e. one representative of national cross-sectoral resource management bodies from each littoral State:

- Prespa Watershed Management Council (FYR of Macedonia)
- Prespa Park Management Body (Greece)
- Prespa National Park Management Committee (Albania)

f. one representative of MedWet

g. the ITA during the lifetime of the UNDP-GEF Project

10. Nominations for representatives under each category shall be made by the corresponding national representatives on the PPCC, who should endeavour as much as possible to identify the most suitable candidates based on:

a. technical expertise of the individual nominee, in terms of such areas as natural resources management, environmental sciences, water policy,

sectoral policies or practices, *etc.*

b. the overall range and diversity of expertise among the PWMWG members as a group;
c. the nature and extent of the individual nominee's connection to the Prespa basin, which should mitigate towards candidates living in the Prespa area and/or with a long-standing interest in and knowledge of the area.

[Note: It was suggested that the NGO representatives from each littoral State might apply / submit an expression of interest for membership of the PWMWG, and the PPCC would select from among the applicants on the basis of the above criteria]

Where a nomination for a representative to the PWMWG under any category is not received from the corresponding national representative on the PPCC, that corresponding national representative on the PPCC shall serve as a member of the PWMWG in the role of that category of representative.

11. The overall membership of the PWMWG as a group shall be approved by a formal decision of the PPCC.

12. In the event that the PWMWG lacks sufficient technical expertise on a relevant issue or specific thematic area on an agenda item, a relevant expert from one of the littoral States may be invited to participate in the meeting(s) as an *ad hoc* member, upon the approval of the PWMWG Chairperson.

Procedural Arrangements

13. The business of the PWMWG shall be conducted in accordance with these Terms of Reference subject to such modification as the PPCC may, at any time, expressly agree upon, unless such modification prejudices the interests of any littoral State or is inconsistent with accepted international practice.

14. Decisions of the PWMWG will be based on consensus. Decisions of the PWMWG will ordinarily focus on the adoption and submission to the PPCC of technical reports and recommendations and the identification of new initiatives and priority areas of study. Where consensus cannot be reached among the members of the PWMWG on a particular issue, a technical report or recommendation may still be submitted to the PPCC making clear the existence, nature and extent of any dissent with regard to its conclusions.

15. A quorum is reached when a minimum of two representatives from each State are present. If a quorum is not reached after one attempt to convene a meeting, then the PWMWG will proceed to meet regardless of the number or identity of members present.

16. Sub-groups will contribute to the work of the PWMWG as and when required. Where necessary, the PWMWG may propose to the PPCC the establishment of time-limited *ad hoc* Task Groups to provide input necessary to fulfil the tasks listed above. The PWMWG would guide the work of such Task Groups.

17. The venue of the PWMWG meetings will be based on a rotational basis between the three littoral States. The PWMWG will convene four times per year. Two of the meetings will take place in the days / weeks immediately prior to the two annual PPCC meetings in order that the PWMWG can effectively support the work of the PPCC. The exact dates of the meetings for each year, including the date of the first meeting of the following year, will be agreed at the first meeting of each year. These dates cannot be changed, except in the case of very grave reasons, and with the agreement of all members of the PWMWG.

18. The PWMWG will be chaired by the ITA during the timeframe of the UNDP-GEF Project / by the governmental focal point of the State hosting the PWMWG meeting. The powers and duties of the Chair shall be to:
    a. Convene the regular meetings of the PWMWG.
    b. Prepare the draft agenda for the meeting in consultation with the members. Any member may propose agenda items. The first item on each agenda shall be the 'adoption of the agenda'.
    c. Preside over each meeting of the PWMWG.
    d. Open and close each meeting of the PWMWG.
    e. Sign the report / minutes of each meeting.
    f. Ensure the observance of these Terms of Reference.

    [Perhaps a Chair elected / appointed on rotation for a period of 2/3 years would ensure some institutional memory, consistency, follow-through???]

19. The official working language of the PWMWG is English. Members who do not feel capable of functioning effectively in English will make their own arrangements for translation.

20. Internal communication among members of the PWMWG may be conducted through electronic means (preferably e-mail). Certain issues intended for wider dissemination and discussion may be posted on the Prespa Project web-based discussion forum.

21. During the lifetime of the transboundary component of the UNDP-GEF Project, costs for travel and accommodation of PWMWG members will be covered from GEF funds. Invited observers are expected to cover their own costs. In exceptional cases, costs for selected observers / specialists may be covered subject to written approval from the Transboundary Component of the UNDP-GEF Project.

22. Subject to the availability of financial resources, a part-time international expert may be retained over the timeframe of the UNDP-GEF Project, with responsibility for facilitating the functioning of the PWMWG.

23. For each meeting of the PWMWG, the transboundary unit of the UNDP-GEF Project will initiate the preparations. The host State will designate an official responsible for organising the meeting with support from the National Project Offices of the UNDP-GEF Project.

24. The PWMWG will develop internal mechanisms to monitor its performance on an annual basis. These mechanisms will be approved by the PPCC.

25. The PWMWG will report annually to the PPCC on the implementation of ongoing activities, on proposed activities and the results achieved.

26. The inception of the PWMWG is a result of the UNDP-GEF Project. It is anticipated that the PWMWG will continue to function beyond the limited lifetime of the GEF Project. To avoid stagnation, the role of the PWMWG in relation to the overall institutional maturation of the PPCC will be reviewed and assessed on an annual basis as part of its evolution process. As part of this process, the PWMWG will review its Terms of Reference annually and propose amendments for approval by the PPC. Appropriate financing strategies will also be developed under the guidance of the Chair.
[But rotating Chair – not conducive to the development of effective financing strategies!]

DETAILED IMPLEMENTATION PLAN FOR THE PRESPA WATER MANAGEMENT WORKING GROUP (PWMWG)

Establishment

It is envisaged that the PPCC could approve the establishment of the PWMWG at its November 2008 Regular Meeting and thereby commence the process for the identification and approval of its membership. Whereas the PPCC may decide to amend the proposed Terms of Reference for the PWMWG, the approval of an amended, final version of the Terms of Reference would not require a dedicated meeting of the PPCC, but could be finalised by e-mail communication. Therefore, the Terms of Reference could be finalised by the end of January 2009.

Nominations / Approval

It is envisaged that each PPCC member would nominate and communicate with the corresponding member(s) of the PWMWG in early 2009 (February – April), in time for the overall membership of the PWMWG to be approved by the PPCC at its first Regular Meeting of 2009 (May 2009). The PWMWG could hold its inaugural meeting in June 2009.
[This timeframe would also allow adequate time for representatives of national NGOs to submit an expression of interest in membership of the PWMWG, for such expressions of interest to be considered by the PPCC, and for appointments to be approved in June 2009]

Tasks

Output 1.3.1: Regular / ongoing exchange and assessment of available water management information:

- prepare a background study of international best practice in respect of inter-State information sharing mechanisms [Phase 1];
- prepare and agree basic principles, a procedure and a methodology for sharing data on, *inter alia*, water monitoring, quantification of water resources, current water use, current discharges to Prespa waters, impacts on water quality and quantity, *etc.* [Phase 2];
- prepare and agree basic principles for cooperation in scientific research programmes [Phase 1];
- draw up an inventory on principal pollution sources [Phase 1];
- establish appropriate and effective warning and alarm procedures [Phase 1];
- identify and agree priority issues for joint projects [Phase 1].

[Given the significance of this task and the need to establish a firm working relationship with the MCWG, this task should

take priority and Phase 1 should be completed by December 2009 and Phase 2 by June 2010]

Output 1.2.1/2: Identification of best practice re ecosystems flow requirements and fishery management practices:

- prepare a background study of international best practice in respect of adoption of an ecosystems approach to transboundary waters and identification of related ecosystems flow requirements [Phase 1];
- identify and recommend ecosystems flow requirements [Phase 2];
- prepare recommendations in respect of optimal / sustainable fishery management practice [Phase 2]
- identify and agree priority issues for joint projects [Phase 1].

[Phase 1 should be completed by December 2009 and Phase 2 by December 2010]

Output 1.4: Improvement of watershed management and coordination capacity at municipal and commune level:

- prepare technical guidance and a checklist for effective implementation of the WFD [Phase 1];
- identify and agree an outline programme of measures at each national level for integrated lake basin management and implementation of the WFD [Phase 2].

[Given the significance of this task for all littoral States, and the fact that implementation of the WFD represents a common, urgent challenge to all the Prespa littoral States, this task should take priority and Phase 1 should be completed by December 2009 and Phase 2 by June 2010]

Output 4.1.1/2/3: Strengthening the functional capacity of the PPCC:

- identify and agree a list of priority data gaps to be addressed in order to facilitate transboundary cooperation [Phase 1];
- prepare a background study of international best practice in respect of the conduct of public participation exercises [Phase 1];
- prepare and agree a basic procedure for ensuring public participation, including preparation of a critical distribution list of key stakeholders, activists and correspondents [Phase 2];
- prepare a background study of international best practice in respect of transboundary environmental impact assessment of projects impacting transboundary waters [Phase 1];
- prepare and agree basic principles and a procedure for the review of the transboundary environmental impact assessment of projects impacting transboundary waters [Phase 2];

- prepare a background study of international best practice in respect of independent fact-finding in the context of differences over shared transboundary waters [Phase 1];
- prepare and agree basic principles and a procedure for the conduct of independent fact-finding [Phase 2];
- identify and agree priority issues for joint projects [Phase 1];

[Phase 1 should be completed by December 2009 and Phase 2 by December 2010]

TERMS OF REFERENCE

ANNEX I

LIST OF MEETINGS CONDUCTED

18 September 2008 8.00-10.00	Mr. Alvin Lopez, UNDP GEF Regional Project, International Transboundary Advisor	UNDP CO, Skopje
18 September 2008 10.00-11.00	Mr. Dejan Panovski, State Secretary, Ministry of Environment and Physical Planning (MEPP), FYR of Macedonia	Ministry of Environment and Physical Planning, Skopje
18 September 2008 11.10-12.10	Ms. Darinka Jantinska, Bilateral Cooperation Dept.; Mr. Ylber Mirta, Water Dept., MEPP, FYR of Macedonia	Ministry of Environment and Physical Planning, Skopje
18 September 2008 13.30-15.30	Mr. Vladimir Stavric, UNDP; Prof. Svetislav Krstic, Faculty of Natural Sciences; Prof. Cvetanka Popovska, Faculty of Civil Engineering / Hydrology; Ms. Stanislava Dodeva, SDC Water Management Expert; Mr. Bojan Durnev, Dept. of Water, Ministry of Agriculture and Forestry, Skopje	UNDP CO, Skopje
18 September 2008 15.45-18.00	Mr. Josif Milevski, Hydro-Meteorological Institute; Prof. Todor Anovski, NATO Project 'Sustainable Management of International Waters – Prespa Lake'	UNDP CO, Skopje
19 September 2008 9.30-10.30	Dr. Trajce Naumovski, Institute of Hydrobiology, Ohrid	Institute of Hydrobiology, Ohrid
19 September 2008 10.45-11.45	Mr. Andon Bojadzi and Ms. Tanja Dzamtoska, KfW Galicica Project	KfW Office, Ohrid
19 September 2008 17.00-18.00	Mr. Alvin Lopez, UNDP-GEF Project, ITA	UNDP Prespa Project Office, Resen
21 September 2008 20.00-22.00	Ms. Vivi Roumeliotou, Society for Protection of Prespa	Agios Germanos

22 September 2008 8.30-9.30	Ms. Myrsini Malakou, Executive Director, Society for Protection of Prespa	SPP Offices, Agios Germanos
22 September 2008 10.30-11.00	Ms. Gabriela Scheiner, Director, Prespa Cultural Triangle	Prespa Cultural Triangle Office, Agios Germanos
22 September 2008 12.00-13.30	Mr. Ioannis Voskopoulos, Ms. Leto Papadopoulo, Management Body of Prespa National Forest; Ms. Novatsidou, Mr, Pavlidis, Mr. Grouios, Prefecture of Florina	Offices of Prefecture of Florina
22 September 2008 14.00-15.00	Mr. Lazaros Nalpanditis, Mayor of Prespa	Offices of Prefecture of Florina
22 September 2008 16.00-18.00	Ms. Anastasia Tzagaridou, Mr. Kianos Sterios, Regional Water Council	Regional Council Offices, Kozani
23 September 2008 09.00-11.00	Mr. Plessas, Ms. Katerina Stylogianni, Ministry of Environment and Public Works / Central Water Agency	Ministry of Environment and Public Works, Athens
23 September 2008 15.00-17.00	Dr. Panagiota Maragou, WWF Greece; Mr. Miltos Gletsos SPP, Ms. Daphne Mantziou, SPP	WWF Offices, Athens
23 September 2008 18.00-20.00	Mr. Thymio Papayannis, Mr. Adnan Budieri, MedWet	Office of Mr. Thymio Papayannis, Athens
24 September 2008 10.00-11.00	Mr. Skender Hasa, Head, Water Resources Unit, Ministry of Environment; Dr. Violeta Zuna, UNDP Prespa Park project	Ministry of Environment, Tirana
24 September 2008 11.00-12.00	Mr. Thimaq Lako and Dr. Molinar Kolaneci, Institute of Energy, water and Environment.	Tirana
24 September 2008 13.00-14.00	Mr. Zamir Dedej, Institute for Nature Conservation in Albania	Tirana
24 September 2008 16.00-17.00	Mr. Platon Gani, Semani River Basin Authority	Elbasan
25 September 09.00-10.00	Mr. Pellumb, Director of Agriculture and Food, Regional Council of Korca	Korca

25 September 2008 10.00-11.00	Mr. Kristaq Shore, Forestry Specialist	Korca
25 September 2008 11.00-12.00	Ms. Eva Dhimitri, Regional Council of Korca of Korce	Korca
25 September 2008 12.30-13.30	Mr. Artur Agolli, Mayor of Commune of Proger; Mr. Ilia Milo, Chairman, Regional Council of Korca	Korca
25 September 2008 15.00-16.00	Mr. Vasil Sterjovski, Vice-Mayor, Commune of Liqenas	Liqenas
25 September 2008 17.00-18.00	Mr. Pande Kostofski, Director, Prespa National Park (Albania)	Resen
26 September 2008 10.00-12.00	Ms. Jadranka Ivanova, Head, EU Dept., Ministry of Environment and Physical Planning, (Mac)	Ministry of Environment and Physical Planning, Skopje
26 September 2008 12.00-13.00	Mr. Nikoli *** and Mr. Dhimitri ***, UNDP	UNDP CO, Skopje
26 September 2008 16.00-17.00	Mr. Alvin Lopez, UNDP GEF Regional Project, International Transboundary Advisor	UNDP CO, Skopje
26 September 2008 16.00-17.00	Ms. Anita Kodzoman, Environment Practice Coordinator, UNDP FYR of Macedonia	UNDP CO, Skopje