THE 1997 UN WATERCOURSES CONVENTION: INSTITUTIONAL ELEMENTS, EXISTING FRAMEWORKS & CURRENT OPTIONS FOR SUPPORTING ITS EFFECTIVE IMPLEMENTATION

PRELIMINARY INSTITUTIONAL ANALYSIS REPORT

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1. INTRODUCTION

With the United Nations Convention on the Non-navigational Uses of International Watercourses (UNWC)\(^1\) rapidly nearing the requisite quorum of 35 States for its entry into force,\(^2\) a unique but urgent opportunity presents itself to investigate how an enhanced institutional architecture\(^3\) might support the implementation and effectiveness of this global framework instrument. This opportunity is confounded by the fact that the State parties to the United Nations Economic Commission for Europe’s Convention on the Protection and Use of Transboundary Watercourses and International Lakes (‘UNECE Water Convention’)\(^4\) accepted a 2003 amendment at the last Meeting of the Parties in November 2012 that will allow for its accession by non-ECE States.\(^5\) Additionally, 2013 will see the UN General Assembly decide, ‘the final form’, of the International Law Commission’s 2008 Draft Articles on the Law of Transboundary Aquifers (ILC 2008 Draft Articles)\(^6\). In the foreseeable future, it is therefore likely that there will be at least two, if not three, ‘global’ legal framework instruments in force dealing with transboundary water issues.

The importance of water generally to sustainable development is well documented, with some experts even arguing that it should be considered a common concern of humankind.\(^7\) This is reinforced by the UN General Assembly’s adoption of Resolution 64/292 in July 2010 explicitly recognising the human right to water.\(^8\) On a transboundary scale, there are an estimated 276 international river basins worldwide that cover approximately 60 per cent of the global surface area and encompass nearly 40 per cent of the global population.\(^9\) Currently, 1.\(^1\) Opened for signature 21 May 1997, 36 ILM 700 (not yet in force).
2.\(^2\) As of 17 May 2013, the following 30 States have ratified, acceded to, accepted, or approved the Convention: Benin, Burkina Faso; Chad; Denmark; Finland; France; Germany; Greece; Guinea-Bissau; Hungary; Iraq; Italy; Jordan; Lebanon; Libya; Luxembourg; Morocco; Namibia; Netherlands; Niger; Nigeria; Norway; Portugal; Qatar; South Africa; Spain; Sweden; Syrian Arab Republic; Tunisia; Uzbekistan. Others have also committed to join the convention, such as the UK and Ireland. For information on how the UNWC is increasingly accelerating towards entry into force, see generally: http://www.circleofblue.org/waternews/2012/world/support-for-un-water-treaty-on-accelerates/.
3.\(^3\) In this report, ‘institutional architecture’ is based Oran Young’s (2002, MIT Press) understanding of the political science and international relations theory of ‘institutional interplay’ as meaning ‘the interactions between institutions that deal with a common issue or that have overlap’. Thus, in the context of international law and transboundary water resources, ‘institutional architecture’ is herein defined as ‘the institutions and regimes which interact in the governance of transboundary water resources’. The classic international relations meaning of ‘regime’ as defined by Krasner (1989) applies: ‘implicit or explicit principles, norms, rules and decision-making procedures around which actors’ expectations converge in a given area of international relations’.
4.\(^4\) Personal communications with members of the MoP and secretariat of the UNECE Water Convention commonly suggest that the 2003 amendment will be fully adopted at the 6\(^{th}\) MoP from 28-30 November 2012, in Rome, Italy. See also: http://www.unece.org/env/water/mop6.html, which states that the MoP ‘will look out to the future evolution of the Convention becoming a global instrument with the forthcoming entry into force of the amendments opening it to countries outside the UNECE region’.
5.\(^5\) Currently, over 30 States have ratified, acceded to, accepted, or approved the Convention: Benin, Burkina Faso; Chad; Denmark; Finland; France; Germany; Greece; Guinea-Bissau; Hungary; Iraq; Italy; Jordan; Lebanon; Libya; Luxembourg; Morocco; Namibia; Netherlands; Niger; Nigeria; Norway; Portugal; Qatar; South Africa; Spain; Sweden; Syrian Arab Republic; Tunisia; Uzbekistan. Others have also committed to join the convention, such as the UK and Ireland. For information on how the UNWC is increasingly accelerating towards entry into force, see generally: http://www.circleofblue.org/waternews/2012/world/support-for-un-water-treaty-on-accelerates/.
6.\(^6\) Personal communications with members of the MoP and secretariat of the UNECE Water Convention commonly suggest that the 2003 amendment will be fully adopted at the 6\(^{th}\) MoP from 28-30 November 2012, in Rome, Italy. See also: http://www.unece.org/env/water/mop6.html, which states that the MoP ‘will look out to the future evolution of the Convention becoming a global instrument with the forthcoming entry into force of the amendments opening it to countries outside the UNECE region’.
the international architecture that has developed to effectively manage these vital transboundary water resources can best be described as highly fragmented.\textsuperscript{10} In terms of legal fragmentation, a common trend has been the adoption of bilateral agreements within multilateral river basins, and despite 67% of all international basins being bilateral, the bulk of basin-specific agreements address multilateral river basins.\textsuperscript{11} This incongruence is supported by the claim that ‘158 of the world’s 263 international basins lack any type of cooperative framework; and of the 105 basins covered by agreements, approximately two-thirds do not include all basin states’.\textsuperscript{12} Thus, the legal and institutional fragmentation regarding transboundary watercourses at the basin and sub-basin level accentuates the underlying significance of the potential entry into force of one or more of the global agreements above.

Given these critical developments in the legal architecture relating to transboundary waters, a fundamental question that must be addressed is, what existing and potential institutional options are available to ensure that these global instruments are implemented in mutually reinforcing and effective manner? In addressing this overarching question a number of sub-questions require attention, including why is there a need for such global legal framework instruments? Is it necessary to have global multi-basin frameworks in place in addition, or in place of, existing basin and sub-basin agreements? Can these framework instruments actually support and strengthen transboundary water management at a basin, sub-basin, national or local level, especially where basin arrangements are lacking or inadequate? Additionally, what insights can be gained from global legal framework instruments in other fields, such as Biodiversity, Climate Change and Wetlands? How would a global institutional framework for watercourses reinforce the effectiveness of related multilateral environmental agreements (MEAs) in these fields? How does the current institutional architecture support transboundary water issues? While numerous factors (political, financial, legal, etc.), will have a bearing on these questions, issues around institutional design and coordination are likely to be pivotal.

While institutional arrangements to support the implementation of the UNWC were not included in the original design of the Convention\textsuperscript{13} important insights can be gained from elsewhere. The purpose of this report is therefore to draw upon this existing knowledge in order to formulate potential institutional options that can support the implementation and effectiveness of the UNWC. The report will be broken down into a number of distinct but interrelated sections.

Firstly, the report will scrutinise existing work and insights related to treaty effectiveness in order to distil key components that have been identified as central to the effectiveness of multilateral treaties. Given the obvious parallels, this section will draw heavily upon the work that has been carried out to better understand the effectiveness of MEAs and improve

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\textsuperscript{11} Rieu-Clarke & Pegram, at 67 (forthcoming).

\textsuperscript{12} Giordano, M., and Wolf, A.T., ‘The World’s International Freshwater Agreements: Historical Developments and Future Opportunities’ at 7 in UN Environmental Programme and Food and Agriculture Organization of the UN, Atlas of International Freshwater Agreements (UNEP 2002). Available online at www.transboundarywaters.orst.edu/publications/atlas. They go on to state that ‘Wolf and his colleagues have since revised the number of international basins upward, to 276. See, e.g., de Stefano and others, Updating the International Water Events Database (UNESCO 2009) at 2. Mapping the Resilience of International River Basins to Future Climate Change-Induced Water Variability (World Bank and others 2010) at 5.

\textsuperscript{13} Although they were proposed by McCaffrey, see McCaffrey, S.C. ‘Sixth report on the law of the non-navigational uses of international watercourses’ DOCUMENT A/CN.4/427 and Add.l, prepared by the Special Rapporteur, 23 February 1990 available at: http://untreaty.un.org/ilc/documentation/english/a_cn4_427.pdf
their implementation. While considerable work has been conducted in relation to MEAs, and also there is an emerging body of literature on the effectiveness of treaty regimes pertaining to transboundary waters, little attention has been paid to the multi-level governance aspects of water issues; and the added value of a global regime related to transboundary waters. An effort will therefore be made to link the analysis of effectiveness within the context of MEAs and river basin regimes to the context of a global framework instrument addressing transboundary waters. In this regard, the report will pay special attention to the ‘value added’ of having a global instrument in place, which far from replacing basin and sub-basin level arrangements, could potentially complement the latter by capitalising on the benefits of collaboration and co-ordination at the global level.

Secondly, the report will draw upon experiences from the evolution of MEAs with regard to institutional co-ordination; and more specifically the debate around synergies and inter-linkages. In so doing, important insights will be gained into how synergies and inter-linkages might be fostered between institutions that deal with transboundary water issues at a range of scales (sub-basin, basin, regional and global).

The report will therefore also map out the existing legal and institutional architecture for transboundary water management, and consider how the current global and regional architecture supports transboundary water management at a basin and sub-basin level. Despite the extensive theoretical and practical work done on inter-linkages and synergies amongst MEAs, few studies exist on improving coordination of international watercourse agreements with MEAs, as well as other watercourse agreements. Almost none consider what role a global institution may play in this coordination and implementation. The intention of this section is therefore to make the case that there is a gap in the current legal architecture, which the UNWC operating at the global level, but within a multi-governance context, can help address.

Having examined treaty effectiveness, institutional co-ordination and the existing institutional architecture for transboundary water management, the final part of the report seeks to ascertain how the existing institutional architecture could support implementation and effectiveness of the UN Watercourses Convention; or alternatively how the existing institutional architecture could be reformed or supplemented in order to support the

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implementation and effectiveness of the UNWC. This part of the report will be presented in the form of options and scenarios. The options will be firmly grounded in a range of potential scenarios that take into account the possible entry into force of, not only the UNWC, but also the UNECE Water Convention’s 2003 amendment, as well as the upcoming discussion at the UNGA on the future of the ILC’s 2008 Draft Articles. Following the Rio +20 Earth Summit, potential options will also be framed in light of the key outcomes and lessons learned from several decades’ of theoretical and practical development by the international community in the field of MEA implementation, inter-linkages,\textsuperscript{18} synergies, and coordination, as well as global environmental governance. The cumulative goal of incorporating the above considerations is to provide a realistic context upon which to address the overarching question: what existing and potential institutional options are available to ensure that the UNWC, UNECE Water Convention and the 2008 ILC Draft Articles are implemented in mutually reinforcing and effective manner?

\textsuperscript{18} The use of the terms ‘inter-linkages’ or ‘linkages’ as regards MEAs have sometimes been used interchangeably to mean the same thing. Chambers and Velasquez respectively, consistently use the term inter-linkages as is consistent in UN literature and materials, whereas Mee, Churchill & Ulfstein, and Briceno use the term linkages to describe the same outcome, albeit in an institutional sense where Mee and Churchill & Ulfstein are concerned. Based on the existing literature and for the purposes of consistency, this use ‘inter-linkages’.
2. WHAT MAKES A GLOBAL LEGAL INSTRUMENT EFFECTIVE?

2.1 INTRODUCTION

Environmental agreements between sovereign states date back to the 19th Century. However, most MEAs were adopted following the UN Conference on the Human Environment in Stockholm, Sweden, in 1972. Since then, the number and diversity of MEAs addressing specific environmental issues has proliferated rapidly to be the now dominant legal template in international environmental law regimes. Some commentators have even maintained that the proliferation of MEAs in recent times has led to the phenomenon of ‘treaty congestion’. This proliferation has sparked the synergies and inter-linkages debate which will be discussed in the following section. The purpose of this section will be to identify key factors that appear to influence the effectiveness of MEAs. However, before examining likely factors it is first important to be clear on what is meant by an MEA, and also how can ‘effectiveness’ be defined.

Whilst a legalistic view of MEAs posits them simply as ‘an intergovernmental document intended as legally binding with a primary stated purpose of preventing or managing human impacts on natural resources,’ this notion has evolved to encapsulate the complexity of their legal and institutional components and practical implementation. The modern understanding of MEAs typically posits them as: multi-faceted agreements between States but involving a broad range of non-State actors; encompassing a broad suite of formal and informal mechanisms; intended to result in specific, tangible and measurable outputs or behavioural changes; and, targeting a single or range of inter-connected environmental challenges within the broader over-arching goal of sustainable development.

2.2 UNDERSTANDING EFFECTIVENESS

By the time the Rio Conference took place in 1992, questions over the extent to which these MEAs had actually been implemented reached the global stage. Signals that more needed to be done were already present in Agenda 21, which called upon States, ‘to ensure the effective,

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20 Ibid.
21 As Chambers notes at 166, there is an important distinction to be made between a treaty (which is ad hoc agreement between states regarding an explicit set of rules on a particular issue), and a regime (which comprises a broader concept of laws, rules and institutions that are both explicit and implicit, and may include treaties and MEAs as part of this broad set of mechanisms towards achieving broader goals).
22 Brown Weiss, E. 'International Environmental Law: Contemporary Issues and the Enmergence of a New World Order' (1992) 81 Geo. LJ 675. Brown Weiss argues that, …ironically, the success that countries have had in negotiating a large number of new international environmental agreements has led to an important and potentially negative side effect: treaty congestion. This affects the international community as a whole, particularly international institutions, as well as individual governments that may want to participate in the negotiation and implementation of agreements but have scarce professional resources’, ibid 697.
24 See generally, Chambers, W.B., 'Interlinkages and the Effectiveness of Multilateral Environmental Agreements' (United Nations University Press 2008), 97.
full and prompt implementation of legally binding instruments'.

Academics – primarily from the disciplines of political science, law and economics - responded with vigour to the call to focus on the implementation of MEAs. Within the last few decades, numerous research and policy groups have therefore studied the implementation and effectiveness of MEAs. Whilst an exhaustive review of all the literature is beyond the scope of this report, this section will seek to ascertain the key factors that have been suggested as important in the promotion of MEAs effectiveness. However, prior to examining such elements, some conceptual understanding of the notion of effectiveness is necessary.

Approaches towards understanding the effectiveness of MEAs has varied between disciplines and also evolved through time. Chambers therefore describes effectiveness as, ‘a term that is randomly used in legal discussion but rarely defined consistently in the world of public international law.’ Similarly, Kütting comments that, ‘effectiveness means distinctly different things to different communities’.

One approach has been to equate effectiveness with ‘compliance’. Compliance has been defined as adherence to the provisions of a particular agreement, or in other words, ‘a state of conformity or identity between an actor’s behaviour and a specified rule.’ Along these lines, if states adhere to their commitments under an agreement, then that agreement can be seen as effective. Jacobson and Brown Weiss go on to identify two dimensions to compliance: namely compliance with the specific obligations (procedural and substantive) of a particular MEA; and compliance with the ‘broader normative framework’ of an agreement, referred to as the ‘spirit of the treaty’.

With a focus on compliance, earlier approaches largely sought to identify treaty design elements that promote compliance. Sand, for example, studied 124 MEAs and produced a set of criteria for evaluating ‘effectiveness’, which centred on key treaty elements pertaining to: participation; implementation; exchange of information; reporting and review; and, institutional arrangements. Raustiala adopts a similar approach in his analysis of MEA ‘reporting requirements’. In addition, Victor, Raustiala and Skolnikoff, through 14 case studies, focus at the international level on ‘systems for implementation review’, which they

26 Although studies related to the effectiveness of international law predate the Rio Conference, see for example, L Henkin, How Nations Behave (Columbia University Press, New York 1968).
28 Chambers, 97.
29 Kütting, 3.
33 Raustiala, K., and UNEP, Reporting and review institutions in 10 multilateral environmental agreements (UNEP Nairobi, 2001).
define as, ‘institutions through which the parties share information, compare activities, review performance, handle noncompliance, and adjust commitments’.  

Others have sought to go further by not only focusing on internal ‘design’ elements that might promote compliance, but also examining the external factors that are likely to influence compliance. Victor, Raustiala and Skolnikoff’s work stressed the importance of accounting for the national contexts. The latter authors therefore examined, ‘how patterns and modes of participation by government agencies, industry associations, environmental groups, and experts have changed over time’; and ‘whether policies designed to expand participation, such as the requirements to provide access to information, have made a difference’.  

Jacobson and Brown Weiss systematically assessed a range of international and national factors that were likely to influence the implementation of, and compliance with, MEAs. At the international level factors that are examined within the Brown Weiss and Jacobson’s case studies, include the nature of the problem, the characteristics of the agreement, and international environment surrounding the agreement. At the national level, factors include: the importance of the broad political culture; the level of economic development; the trajectory and pace of economic growth or decline; the legal and political system in place; administrative capacity; and, leadership.  

A further feature of Jacobson and Brown Weiss’ work is the distinction between ‘implementation’ and ‘compliance’. ‘Implementation’ is defined as ‘the process of putting international commitments into practice’. According to the UNEP Guidelines on MEA Compliance and Enforcement, implementation implies enacting and promulgating relevant laws, regulations, policies, and other measures and initiatives necessary for parties to meet their obligations under an international agreement. Such implementation measures can be taken both at the international and domestic levels, but as observed by Victor Raustiala and Skolnikoff, rarely follow a single pattern. Andresen and Skjaerseth even state that, ‘perhaps the main challenge to increase the effectiveness of IEAs [International Environmental Agreements] today is to improve domestic implementation efforts’.  

36 Ibid., 3.  
38 Jacobson and Brown Weiss, 6-7.  
39 Jacobson and Brown Weiss, 7-8.  
40 Raustiala, K., and Slaughter, A.M., 'International Law, International Relations and Compliance’ in W Carlsnaes, T Risse and BA Simmons (eds), Handbook of International Relations (Sage Publishing 2002).  
41 United National Environment Programme, Guidelines on Compliance with and Enforcement of Multilateral Environmental Agreements (UNEP Division of Environmental Law and Conventions 2002).  
43 Andresen, S., & Skjaerseth, J.B. ‘Can International Environmental Secretariats Promote Effective Cooperation?’ Paper presented at the United Nations University’s International Conference on
An alternative but complementary approach to examining effectiveness within the context of MEAs has been the focus on ‘regimes’. Such analyses differ from the above-mentioned implementation and compliance related work in two important ways: firstly, the notion of regimes goes beyond evaluating the binding commitments within a particular MEA, to an analysis of a cluster of legal and non-legal norms that have been designed to address a particular issue; and second, instead of focusing purely on the extent to which States comply with a particular IEA, regime analysis has tended to concentrate more on the degree to which State behaviour has been influenced by the regime, and if so, whether such behavioural change has had an impact on the environmental issue in focus. This latter aspect recognised the fact that while a treaty may have been both implemented and complied with, it may still fall short if it has not been able to address the problem for which it was established. For regime theorists, the ‘problem structure’ (discussed in detail below) therefore becomes an important aspect of the analysis of effectiveness.

2.3 FACTORS INFLUENCING THE EFFECTIVENESS OF MEAS

Clearly it would be premature for this report to assess the effectiveness of the UNWC, as a global treaty regime, along the lines of the regime theorist noted above. However, important insights can be gained from the afore-mentioned work in terms of how effectiveness might be conceptualised, and how problem structure, external factors and internal features influenced effectiveness. Key insights that can be identified, which will be discussed in more detail below, include:

- Complex problems tend to require complex solutions;
- Legal rights and obligations that are more determinate are easier to comply with, while less determinate legal rights and obligations require strong interpretative mechanisms to support their implementation;
- MEA regimes engaged in activities beyond standard-setting, such as planning, and implementation and compliance monitoring tend to be more effective;
- Participation of non-state actors in MEA regimes tends to enhance their legitimacy and effectiveness; and
- Implementation takes place primarily at the national level.

2.3.1 Complex solutions for complex problems

Clearly the nature of the problem will have an influence on implementation, compliance and effectiveness. Victor and others highlight three aspects of a problem that are significant, namely: the ratio of costs to benefits; the distribution of those costs and benefits; and, ‘strategic’ considerations such as international economic competitiveness. Underdal comments that, ‘some problems are substantively more intricate or complicated than others, implying that more intellectual capacity and energy are needed to arrive at an accurate description and diagnosis and to develop good solutions.’ The ‘malignancy of a problem’

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44 This section is based mainly on Rieu-Clarke, A., & López, A. ‘Factors that could limit the effectiveness of the 1997 UN Watercourses Convention upon its entry into force’, in F Loures & A Rieu-Clarke (eds) The UN Watercourses Convention in Force (Earthscan 2013).
45 On an attempt to examine whether or not the UNWC has created a ‘global regime’, see Conca, K., Wu, F., Mei, C., ‘Global Regime Formation or Complex Institution Building? The Principled Content of International River Agreements’ (2006) 50(2) International Studies Quarterly 263.
46 Victor, Raustiala, and Skolnikoff, 67.
47 Victor, Raustiala, and Skolnikoff, 67.
48 Victor, Raustiala, and Skolnikoff, 67.
is therefore not by itself a key factor, but rather the combination of complexity and weak problem-solving capacity.

In terms of problem structure, international watercourses represent a classic and complex case of an ‘international common pool resource.’ Benvenisti describes the problem with common pool resources as follows:

Because different states enjoy access to transboundary natural resources, they face a collective action problem. Each state is interested in getting more out of the resource with minimal costs, and these interests conflict with those of the other users. This conflict can lead the parties to a race to the bottom.\(^{50}\)

Collective action theory maintains that benefits can be maximised by a shift away from an emphasis on individual entitlements, towards stronger internal interaction.\(^{51}\) Within the context of international watercourses, the range of benefits can be significantly increased through collective action; however, such action comes at a cost.

Addressing the challenge of a common pool resource such as transboundary waters requires strong process-based mechanisms that not only fill the knowledge gap (technical and scientific know-how), but do so in a legitimate manner – the so-called transaction costs of cooperation.\(^{52}\) Considerable investment will be require to ensure that there is sufficient scientific knowledge and understanding of the ‘common pool resource’, and the benefits of collection action. While the precise nature of such mechanisms may differ from one watercourse to another, it is important to stress that ‘process-based’ instruments that see to address this knowledge gap will be more effective than agreements primarily concerned with defining individual entitlements.

In addition to addressing the knowledge gap, it is important that such agreements are not blind to the power dynamics within a particular basin.\(^{53}\) A realist perspective of transboundary water interaction, would suggest that the most powerful state, the ‘hydro-hegemon’ within a particular basin dictates the nature of cooperation – either with positive or negative consequences.\(^{54}\) If the most powerful state is upstream it may have little incentive to enter into ‘common pool resource’ type agreements with its downstream neighbours; conversely a powerful downstream may enter into agreements that are skewed in its favour.\(^{55}\) However, non-hegemonic states may not be completely powerless to shape cooperation within a particular transboundary water setting.\(^{56}\) Daoudy, for example, maintains that,


\(^{52}\)Benvenisti, 22-42.


‘downstream countries can ... mobilise structural factors, such as the codification of new legal ‘rules’ on watercourses to bring upstream riparians to cooperate, and therefore acquire enhanced structural power’.\textsuperscript{57} Similarly, Zeitoun and Jägerskog claim that, ‘basin bullies can be susceptible to powers of persuasion, and may be less likely to force an arrangement if they are held accountable to an objective standard, or risk being “named and shamed”’\textsuperscript{58}

Both the knowledge gap issue, and the need to fully account for the power dynamics in the transboundary setting raise important questions of scale. To what extent does it make sense to address the knowledge gap at the basin level, and how can inter-basin collaboration at the regional and global level assist? Is there a role for a global legal regime in knowledge exchange and development between basins and regions? Similarly, can a global legal regime for transboundary help addresses power asymmetries? Would a global legal regime enhance the ‘persuasive power’ of international law, and therefore provide a stronger incentive for all basin states to cooperate over transboundary waters in an equitable and sustainable manner? Any global legal regime for transboundary waters that is not sensitive to the questions raised above is unlikely to be effective. Or in other words, such a regime would be incapable of ensuring that transboundary waters are managed in an equitable and reasonable manner. In formulating the various scenarios and options in part six of this report, it will be important to examine how well the various options respond to issues related to transboundary waters being an international common pool resource, and the underlying power dynamics within the transboundary setting.

2.3.2 Degree of rule determinacy and the need for interpretive mechanisms

Legal rights and obligations that are more determinate are easier to comply with, while less determinate rights and obligations must be supported by strong interpretative mechanisms.\textsuperscript{59} A number of studies emphasise the importance of rule determinacy in relation to MEA implementation, compliance and effectiveness, Franck defines ‘determinacy’ as, ‘the ability of the text to convey a clear message, to appear transparent in the sense that one can see through the language to the meaning’.\textsuperscript{59} Similarly, Sand cautions that, ‘a lack of precise objectives is a major difficulty in measuring achievement’.\textsuperscript{60} However, it should be noted that precision is not always possible. As Franck reminds us, complex problems can require complex rules.\textsuperscript{61}

Questions over the interpretation of certain provisions of the UNWC might be raised. Numerous provisions are subject to differing interpretations. For example, states are obliged according to Article 5 to utilise an international watercourse in an ‘equitable and reasonable’ manner. What constitutes ‘equitable’ or ‘reasonable’ may differ from case to case. Similarly, Article 7 requires states to take, ‘all appropriate measures’, to prevent ‘significant harm’. Again, what constitutes ‘appropriate’ measures may differ from state to state, and the Convention does not define what is meant by ‘significant’, nor what constitutes ‘harm’. Other questions could be raised over open textured standards such as, ‘good faith’ (Art. 3(5), 4(2), 8(1), 17(2), 31, 33(8)), ‘special regard’ (Art. 10), ‘significant adverse effect’ (Art. 12), ‘timely notification’ (Art. 12), ‘best efforts’ (Art. 9(2), 9(3), 26)), ‘where appropriate’ (Art 4, 7(2), 9(3), 20, 21(2), 23, 25(1), 27, 28(3), 28(4)), ‘adequate protection’ (Art 5(1), 8(1)),

\textsuperscript{58} Zeitoun and Jägerskog, 12.
\textsuperscript{61} Franck, T.M., ‘Legitimacy in the International System’: Franck recognises that, ‘issues that cannot be reduced to simple binary categories invite regulation by more complex rule texts which, while avoiding the problem of reductio ad absurdum, suffer the costs of elasticity’, 724.
‘sustainable development (Art. 24(2)(a)), ‘optimal and sustainable’ (Art. 5(1)) and so forth. These issues of interpretation might be resolved through a careful analysis of the Convention’s text and recourse to the travaux préparatoires. What will therefore be important is that effective mechanisms are in place, ‘in which ambiguity can be resolved case by case.’ Interpretative processes, possibly at a regional and global scale - such as Tanzi’s referencing of the ILC’s “relationship of interpretation” approach to the harmonisation of international laws within the specific context of the legal compatibility between the UNWC and UNECE Water Convention - will become crucial, and will therefore be discussed in the next section.

2.3.3 MEA regimes’ role in activities beyond stand-setting

MEA regimes engaged in activities beyond stand-setting, such as planning, and implementation and compliance monitoring tend to be more effective. Through the exchange of information, reporting requirements, technical and scientific programmes, and so forth, regimes have served as an effective vehicle for developing a better understanding of problems, developing tailor-made responses, and assessing the impact of those responses. Underdal highlights the role regimes can play in providing collective learning forums. Some analysts consider such a role as fundamental. Miles and Underdal, for example, warn that, ‘regimes engaging beyond standard-setting – in particular, functions such as planning and implementation – tend to be more effective than those that do not’.

For MEAs to take on the abovementioned roles, it will be crucial that a strong institutional framework supports the legal rights and obligations that they create or codify. An extensive amount of literature and practice exists around the different elements of autonomous institutional arrangements for MEAs. In practice most MEAs have their own ‘mini-institutional machinery’, often including a CoP, a secretariat, advisory bodies and subsidiary bodies, usually made up of technical experts. Desai explains the rationale as follows:

It appears that lawmaking on environmental issues is greatly facilitated by treaties due to a sense of urgency involved in the matter as well as to scientific uncertainties intrinsically embedded in the issues. Moreover, state have found that it is possible to have treaties as frameworks, which in turn, could be shaped with the availability of scientific evidence, the convergence of interests of the respective contracting parties, as well as the atmospherics and posturing (e.g., the huge participation of states, civil society groups, media) dictated by circumstances of the specific treaty-making exercise. Thus by their very nature, such skeleton (framework) treaties require built-in law-making mechanisms to facilitate gradual tightening up of the specific treaty. As a corollary, the whole treaty operates as a 'process,’ necessitating the engagement of the contracting parties at regular intervals and efforts to arrive

62 For the preparatory documents leading to the adoption of the UNWC, see http://untreaty.un.org/cod/avl/ha/clnuiw/clnuiw.html.
63 Franck, ‘Legitimacy in the International System’ at 724.
64 Tanzi. 242.
67 Miles & Underdal, 467.
at convergence/ balancing of interests to build up regimes (ie. regulatory process involving soft and hard instruments).  

CITES is identified as the first treaty to adopted such an approach in 1973, with the establishment of its CoP.  

Recognised as a success, other MEAs quickly followed. Churchill and Ulfstein identify a number of reasons why the Framework-COP model was considered successful, including, (i) using pre-existing international governmental organisations (IGO) may result in states not parties in the MEA becoming involved; (ii) a new IGO would be more costly and bureaucratic than the Framework-COP model, (iii) where as IGOs meet at its headquarters, CoPs might meet in different places; and (iv) COP can be flexible in the frequency in which it meets.  

CoPs can conduct a range of functions including ‘internal’ matters, such as establishing subsidiary bodies, adopting rules of procedures, and providing guidance to subsidiary bodies and the secretariat. They may also develop substantive norms by amending the MEA or adopting additional protocols; and act at the external level by adopting arrangements with international organisations. An additional feature, that will be examined in further detail below, is that they supervise parties implementation of and compliance with the MEA, as well as deciding on the consequences of non-compliance.

Rules and procedures by which parties to an MEA, ‘exchange data, share information on implementation, monitor activities, assess the adequacy of existing commitments, and handle problems of poor implementation’ have proven an every increasing feature of MEAs. A prerequisite to any compliance and implementation review system is baseline data and information. Numerous studies therefore stress the central role that reporting plays in ensuring that the regime is ‘nurtured’. Beyerlin and others identify a number of functions that reporting can provide, including: (i) the proper assessment of facts and the exchange of information; (ii) a means to monitor of implementation of treaty obligations; (iii) through reporting procedures, ‘a dialogue between the regime body assessing reports and the reporting Member State(s) which may considerably facilitate further implementation and compliance’; and, (iv) a persuasive mechanism by which to remedy cases of non-compliance. Brunnée also recognises the role of reporting in enhancing transparency and trust as to a party’s performance.

Most MEAs rely on a self-reporting reporting procedure, where the parties to an MEA provide information on their individual efforts to implement and comply with the

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71 Churchill & Ulfstein, 630
72 Churchill & Ulfstein, 626
73 Churchill & Ulfstein, 626
74 Churchill & Ulfstein, 626
75 See generally, Victor, Raustiala and Skolnikoff.
77 Beyerlin, Stoll and Wolfrum, 'Conclusions Drawn From the Conference on Ensuring Compliance with MEAs', in R Wolfum, U Beyerlin and PT Stoll (eds), Ensuring Compliance with Multilateral Environmental Agreement: A dialogue between practitioners and academia (Brill, Boston 2006), at 363.
requirements of the agreement. The process is usually administered by the Secretariat of the MEA, and reports are often made publically available. However, it has been recognised that, the benefits of reporting are largely dependent on the quality and reliability of the reports and the underlying system. Sand observes that, ‘there are wide differences in the quality of national performance reports as a means to monitor compliance.’ Similarly, Raustiala observes that MEA reporting is often low, even less than 50%, particularly in developing countries due to every burgeoning commitments across MEAs.

The way in which non-compliance is managed also appears to have an important bearing on MEA effectiveness. Sanctions are often seen as the least effective option for ensuring compliance within the context of international environmental problems. Based on the assumption that lack of capacity to comply is often the root cause of non-compliance, positive incentives are seen as an important tool for addressing cases of non-compliance. Such incentives can include, ‘special funds for financial or technical assistance, training programmes and materials, access to technology, or bilateral or multilateral assistance outside the framework of the convention, from governments, multilateral development banks, or, in some cases, the private sector.’ In certain circumstances ‘negative incentives’ may also be appropriate, such measures include ‘formal cautions, public naming and shaming of the non-complying Party, and the imposition of other sanctions, including the suspension of certain treaty rights or privileges.’

Raustiala identifies eight ‘recommendations and lessons learned’ with regard to compliance and implementation review, namely:

- Develop good data gathering and reporting systems early on, and make the reporting process useful to the parties individually;
- Incorporate multiple sources of data where possible, in particular in-depth, on-site or country studies by Secretariats or independent teams;
- Utilize the Internet for the filing and publication of reports and of reviews, where applicable;
- Provide concrete assistance and training to parties in the gathering and reporting of MEA relevant data;
- Consider the use of dual (technical and political) institutional bodies in compliance review institutions;
- Expand the use of individual or NGO-triggered, “fire alarm” review institutions;
- Non-confrontational, soft or “managerial” approaches to compliance review are important, but both incentives and disincentives are present in effective compliance review institutions; and,

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80 Victor, Raustiala and Skolnikoff, ‘Introduction’, 10
81 Victor, Raustiala and Skolnikoff, ‘Introduction’, 10
82 Sand, 13.
84 Brunnée J, ‘Compliance Control’, 374.
85 Jacobson and Weiss, ‘Assessing the Record and Designing Strategies to Engage Countries’ at 546.
86 Ibid.
87 Beyerlein, Stoll and Wolfrum, ‘Conclusions Drawn from the Conference on Ensuring Compliance with MEAs’, 36.
• Build review expertise and legitimacy slowly, particularly in the case of implementation and compliance review, and initiate review institutions as early as possible.88

A key point to note here, which will be addressed fully in part six of this report, is the observation that at present the text of the UNWC is largely silent on the measures required to adopt such a compliance and implementation review system. During the work of the ILC, McCaffrey proposed a reporting requirement for the UNWC in his sixth report as Special Rapporteur.89 Drawing on examples from state practice largely related to MEAs, McCaffrey proposed a draft article that would require the establishment of a ‘conference of the parties’, that would meet no later than two years after entry into force, and hold regular meetings at least every two years.90 Amongst other activities, the latter meetings would allow the parties to, ‘review the implementation of the present articles’; and ‘receive and consider any reports presented by any Party or by any panel, commission or other body establish pursuant to … the present articles.’91 However, ultimately such an institutional framework was not provided for within the text of the UNWC, which – if not addressed - could be unfortunate in terms of providing a mechanism by which the implementation and effectiveness of the Convention might be evaluated.

2.3.4 Participation of non-state actors in MEA regimes

Participation of non-state actors in MEA regimes tends to enhance their legitimacy and effectiveness. In this respect, the importance of non-state actors in environmental decision-making has long been recognised.92 As set out in principle 10 of the 1992 Rio Declaration, ‘environmental issues are best handled with the participation of all concerned citizens, at the relevant level’.93 Non-state actors, e.g. international and national non-governmental organisations, (multi-)national corporations, and individuals, can provide an important source of information concerning the activities related to an agreement; or provide an opinion on the claims of state parties.94 Whilst most compliance mechanisms ultimately place reporting requirements and the assessment of those reports in the hands of state parties, either through a compliance committee, the Meeting of the Parties, or a combination of the two. Greater participation of non-state parties within the process of compiling reports and assessing the reports is increasingly seen as a useful mechanism for increasing transparency and legitimacy of MEAs.95 Moreover, as Raustiala points out, involving non-state actors, such as industry and other interested groups, can help produce “buy-in” by important stakeholders in the regulatory decisions undertaken, which in turn can enhance their commitment to comply.96

90 Ibid.
91 Ibid.
93 Ibid.
94 Jacobson and Weiss, ‘Assessing the Record and Designing Strategies to Engage Countries’ at 527.
95 Beyerlin, Stoll and Wolfrum, ‘Conclusions Drawn From the Conference on Ensuring Compliance with MEAs’ at 364.
While there is therefore a general consensus that non-state actors can play an important role in the implementation of, compliance with, and effectiveness of MEAs this is an area where the text of the UNWC is also largely silent on. A key question to consider is therefore how the existing institutional architecture could be applied or revised to embed this important feature within a global treaty regime for transboundary waters.

2.3.5 National-level implementation

Implementation takes place primarily at the national level. Hathway points out that ‘much of international law is obeyed primarily because domestic institutions create mechanisms for ensuring that a state abides by its international legal commitments whether or not particular governmental actors wish to do so’.97 Formal mechanisms may include national legislation, and executive or administrative mandates and structures.98 The functioning of such mechanisms will be highly contingent on administrative capacity.99 Jacobson and Brown-Weiss identify a range of ‘sub-factors’ related to administrative capacity, including: knowledgeable, educated and trained personnel; adequate financial support; and, an appropriate legal mandate.100 Similarly, Lindemann observes that, where there are insufficient financial and administrative resources to plan and administer water projects, and technical capacities for data generation and project implementation, treaty effectiveness is likely to suffer.101

Within the context of MEAs, Steiner et al present the challenge as follows:

One of the greatest challenges of international governance is to ensure that each government’s participation in international decision-making stems from well-informed and widely-shared understandings at the national level. This requires devolution of authority to local and community levels within a national governance framework. The framework should provide adequately for participation, transparency and accountability, ensure that different sectoral activities are considered in relation to a given problem and at the scale of affected eco systems, establish means to accurately weigh environmental and socio-economic costs and benefits, and clearly set out roles and responsibilities for implementation and commensurate funding.102

Country-specific factors are not limited to the formal mechanisms of government. As noted above, non-governmental organisations can play an important role in ensuring that treaty commitments are implemented, and are effective. Additionally, Koh, observes that non-governmental actors, ‘do not work alone’.103 Koh identifies an important role played by, ‘government officials who …act as allies and sponsors for norms…. Once engaged, these

governmental norm sponsors work inside bureaucracies and governmental structures to promote the same changes inside organised government that nongovernmental norm entrepreneurs are urging from the outside.  

It is also worth pointing out that national actors, be they governmental or non-governmental, tend to collaborate with international actors. Jacobson and Brown-Weiss, thus recognise the importance of non-governmental organisations at the international level, noting that they, ‘have become an instrument of universalizing concern.’ Lindemann also stresses the importance role that international actors can play terms of providing financial resources, offering technical and cognitive expertise, and acting as ‘independent’ mediators. ‘Transnational issue networks’, made up of national and international actors may therefore constitute an important means by which the latter mentioned organisations mobilise their efforts and resources around a particular issue.

2.4 KEY ELEMENTS FOR MAKING THE UNWC A MORE EFFECTIVE INSTRUMENT

The analysis presented in this section demonstrates that important lessons can be learned for the future of the UNWC from past experiences in the implementation of MEAs. The section has demonstrated that various factors are likely to influence the degree to which the UNWC is implemented, complied with and ultimately effective. For certain ‘external’ factors, such as problem structure, any institutional options proposed must demonstrate that they are both sensitive to such issues and has the capacity to respond to them. For other ‘internal’ factors – which are capable of ‘deliberate manipulation’ much can be gained by examining two inter-related questions: firstly, to what extent the existing legal and institutional architecture for transboundary waters does or could provide these features; and secondly, how the UNWC might be amended – either formally or informally – to embed such features in its design. Based on the knowledge gained from this section, an answer to these two interrelated questions will form a central component of section 6 related to scenarios and options. However, the report will firstly examine an additional area where key insights may be gained, namely the discourse around inter-linkages, synergies and institutional coordination.

104 Koh, 648.
105 Jacobson and Weiss, 'Assessing the Record and Designing Strategies to Engage Countries', 529.
106 Lindemann, 9.
107 Koh, 649.
3. WHAT MAKES GLOBAL LEGAL INSTRUMENTS MUTUALLY RE-INFORCING?

3.1 INTRODUCTION

The concept of inter-linkages, synergies and coordination for ameliorating the implementation of MEAs dates back to the UN Conference on the Human Environment (UNCHE) in 1972 (which coincidentally coincides with the supposed birth of the ‘institutionalisation’ of international environmental law). Due to the rapid proliferation of MEAs in the preceding decades, culminating in what has been referred to as ‘treaty congestion’, theories emerged of how ‘inter-linkages’, ‘synergies’ and ‘coordination’ within and between MEAs could address overlaps and duplication in the field of international environmental law. This, in-turn, spurred a wave of studies over the past two decades into the theory and practice of MEA inter-linkages, synergies and coordination which now occupies a large body of the literature on MEA ‘effectiveness’. Critical factors within and between MEAs and the importance they play in strengthening their individual and/or mutual implementation are highlighted below, along with examples of current initiatives, setting the scene for the potential role and benefits of a global watercourse institution.

Upon its entry into force, the UNWC will be but one global legal agreement within a vast and complex international law regime. A significant amount of research has been conducted into not only the theory of inter-linkages, synergies and coordination within and between MEAs, but also into the related practical components of this field. In this section of the report the critical elements from the theory and current practice of MEA synergies and inter-linkages will be distilled in order to identify the most pertinent aspects for integration within a global institutional framework for transboundary watercourses. The key insights that can be drawn from this section, and which will be elaborated on in detail below, highlight that:

- *MEAs cross sectors and multiple governance levels in their application;*
- *Inter-linkages within and between MEAs can enhance reciprocal effectiveness;*
- *Fostering synergies between MEAs can improve their problem-solving capacity; and,*
- *Increasing coordination amongst MEAs can aid efficient mutual implementation.*

3.2 FACTORS WITHIN AND BETWEEN MEAS THAT CAN STRENGTHEN IMPLEMENTATION

3.2.1 Application of MEAs across sectors and multiple governance levels

MEAs cross sectors and multiple governance levels in their application. Kanie aptly summarises that, ‘the larger the number of MEAs, the more frequently they need to interact with each other’\(^{111}\) in relation to related sustainable development issues, to the extent that an, ‘MEA frequently influences the development and effectiveness of other MEAs, and in return, it is also influenced by other policy instruments’\(^{112}\). Therefore, accepting that MEAs are,

\(^{109}\) See, Rosendal, K., & Andresen, S. ‘UNEP’s Role in Enhancing Problem-Solving Capacity in Multilateral Environmental Agreements: Co-ordination and Assistance in the Biodiversity Conservation Cluster’ The Fridtjof Nansen Institute, *FNI Report 10*, 2003, 1; see generally the following section of this report on existing institutions which elaborates on this development.

\(^{110}\) This term was coined to describe the impact of the rapid proliferation of MEAs whereby there was overlap and duplication amongst those dealing with similar issues.


\(^{112}\) Kanie, 76
generally-speaking, ‘specialized instruments focused on particular problems or sectors’

our understanding of international environmental cooperation has advanced over time to identify
the urgent need to adopt harmonised approaches for MEAs in order to better address
problems which are increasingly cross-sectorial and multi-scale in nature. Hence, in response
to the rapid proliferation of MEAs, the theory and practice of MEA inter-linkages, synergies
and coordination as a collection of mutually reinforcing mechanisms for integrating the
related elements of MEAs has emerged. By bringing all of these conceptual elements
together, they collectively form a suite of methodologies towards the over-arching aim of
strengthening the legal, scientific and institutional framework for sustainable development.
In this sense, the rationale underpinning the development of inter-linkages, synergies and
coordination can be more simply framed within the paradigm of improved governance
towards sustainable development.

Initial theories focused on the clustering of MEAs into thematic areas, but these theories
were later developed to focus on a number of aspects including the co-location of MEA
secretariats and the role of coordinating institutions in MEA negotiation and implementation,
as discussed later in this section.

3.2.2 Inter-linkages within and between MEAs

Inter-linkages within and between MEAs can enhance the reciprocal effectiveness of
environmental treaties and institutions. Inter-linkages and ‘inter-linkage theory’ has been
synonymous with the international environmental law regime since the late 1990s. Chambers,
who has written extensively on this aspect of MEAs, believes inter-linkage theory constitutes
‘a strategic approach to managing sustainable development that generally seeks to promote
greater connectivity between ecosystems and societal actions’. Briceno further supposes
that there are ‘basic connections that exist between ecosystems and human and social actions,
including economic activities – connections which may be discoverable through research in
the natural and social sciences’. These statements, whilst broad in scope, can be brought
back into focus through the paradigm of international legal regimes, whereby inter-linkages
theory, ‘postulates that treaties that have overlapping subject areas and contradictory
obligations can work to solve these conflicts through greater cooperation’. This is
facilitated via an ‘inter-linkages approach’ which ‘from a legal perspective can therefore be
viewed as a normative theory that postulates that treaties can improve their legal performance
through greater inter-treaty cooperation.

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113 Steiner et al, 228
114 See Roch, P., and Xaver Perrez, F. ‘International Environmental Governance: The Strive Towards a
Comprehensive, Coherent, Effective and Efficient International Environmental Regime’ (2005) 16(1)
Colorado Journal of International Environmental Law & Policy 1-26, 13; Iwama, T. ‘Multilateral
65, 86-87; Iwama at 87 describes varying approaches to clustering in so far as ‘Clustering could group
MEAs either into issue clusters such as atmosphere, oceans, fresh water, biological diversity and waste
or into functional issue clusters such as capacity building, environmental assessment, scientific
assessment, monitoring, administrative management, reporting and so on’. For a detailed analysis of
the different approaches to clustering, its objectives and rationale, see generally, Oberthur, S.
‘Clustering of Multilateral Environmental Agreements: Potentials and Limitations’ (2002) 2
115 Chambers, 134
116 Briceno, S. ‘Institutional Linkages among Multilateral Environmental Agreements: An
Organizational and Educational Development Perspective’ Paper presented at the United Nations
University’s International Conference on Synergies and Co-ordination between Multilateral
Environmental Agreements, Tokyo, Japan, July 14-16, 1999, 2
117 Chambers, 135
118 Chambers, 139
By unpacking the ‘inter-linkages approach’ and applying it specifically to international environmental treaty regimes, MEA inter-linkages are best conceptualised as the compatibilities between related MEA instruments and institutions which provide a basis upon which to enhance mutual effectiveness. In effect, MEA inter-linkages are the connections between treaties that can be used to improve the effective implementation of environmental laws and policies, as well as strengthen global environmental governance more broadly.

Chambers attempts to summarise the practical implications of adopting the inter-linkages approach in order to improve MEA effectiveness, and its two integral components as follows:

On a practical level, it promotes greater cohesiveness among environmentally issue-based and development-focused policies and institutions across and between international, regional and national scales. The interlinkages approach to sustainable development comprises two fundamental elements: synergism and coordination. It is believed that a synergistic approach to managing institutions will lead to a more effective and resource-efficient assessment, negotiation, decision-making, planning and implementation of policies and measures. Similarly, improved coordination of institutions at the international, regional and national levels will minimize inadvertent conflicts between policies and measures and between different international, regional and national regimes.119

Two practical elements of the inter-linkages approach – synergies and coordination – which are critical mechanisms for improving treaty effectiveness are explored separately below.

3.2.3 Fostering synergies between MEAs

Fostering synergies between MEAs can improve their problem-solving capacity. As regards synergies, Chambers proposes that these ‘can be understood as the point of convergence between environmental science and environmental politics’120. Chambers further argues the point that synergies arise ‘when scientifically identified environmental inter-linkages are accommodated within the policy-making process’121 of MEA negotiation, implementation, enforcement and review. In this respect, Briceno suggests that synergy is the process by which inter-linkages between MEAs can be developed in ‘a systematic, profound and long-term oriented manner in order better to attain individual and common objectives, such as sustainable development’.122 Synergies can thus best be understood as the (often politically) negotiated scientific and technical ‘complementarities’ between binding MEAs which inform the practical, non-binding instruments of MEAs such as joint-programmes.

A notable example of exploiting MEA synergies is the ‘River Basin Initiative – on integrating biological diversity, wetland and river-basin management’ which began in 2000 and is organised as a Joint Work Plan under the mandate of both the CBD and Ramsar Convention. Its stated aim is to provide ‘a mechanism to promote sharing of best practices and issues relating to integrated management of river basins based on an ecosystem approach’123 whereby it will ‘support implementation of convention decisions related to better management of inland water ecosystems and associated biodiversity, water resources and

119 Chambers, 134
120 Chambers, 134
121 Chambers, 134
122 Briceno, 2
wetlands. The scope for synergies can therefore be said to largely determine the extent to which the practical implementation of two or more related MEAs are mutually-reinforcing. In sum, the over-riding aim of promoting synergies is in seeking to achieve scientific and technical ‘best practice’ to problem-solving-related sustainable development challenges addressed by complementary MEAs.

3.2.4 Increasing coordination amongst MEAs

Increasing coordination amongst MEAs can aid efficient mutual implementation and strengthen environmental governance. Coordination of MEAs ‘relates to the need to minimise inadvertent conflicts between environmental policies and with other different but inter-related regimes’. Consequently, coordination is specific to matters associated with strengthening the efficiency of MEAs (and which therefore also can often involve the identification and promotion of synergies). This notion of ‘efficiencies’ via coordination broadly encompasses ways of working within and between MEAs that prevent inconsistencies, limit contradictions, avoid duplication, maximise cost-benefit outcomes, and overall, achieve sustainable environmental outputs and behavioural changes in relation to their legal, policy and institutional implementation. Hence, the subsequent benefits of coordination include ‘avoiding double work, increased cost efficiency and reaping the potential benefits from economies of scale’ which in-turn increases synergies. It is important to note that whilst coordination predominantly emerged from a ‘top-down’ call for reducing institutional inefficiencies such as within and between MEAs, there is also scope and demand for ‘bottom-up’ coordination in the form of ‘financial or technology transfer as well as legal and technical expertise’. Coordination therefore assists MEA implementation by identifying areas where institutional (infrastructural, financial) and human/technical (expertise, programmes) resources can be better allocated and utilised in order to maximise beneficial results (outcomes, outputs, behavioural change) and reduce waste (time, costs, errors).

An extremely pertinent and timely example of increased coordination amongst MEAs (as regards the UNWC and UNECE Water Convention) is the recent convening of joint meetings of the CoPs of the three legally autonomous MEAs which collectively govern global chemical and hazardous waste safety, the: Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (Basel Convention); Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Rotterdam Convention); and, Stockholm Convention on Persistent Organic Pollutants. This historic joint meetings of the CoPs, the first coordination initiative of its kind by related MEAs to hold back-to-back meetings of the CoPs, took place over two weeks in April/May 2013 and was initiated specifically to ‘strengthen cooperation and collaboration between the conventions, with a view to enhancing the effectiveness of their activities on the ground’. To summarise, increasing coordination thus seeks to achieve more mutually efficient implementation of related MEAs.

3.3 MEAS IDENTIFIED AS HAVING INTER-LINKAGES, SYNERGIES, AND COORDINATION ELEMENTS WITH THE UNWC AND WATER AGREEMENTS.

124 See: [link to Ramsar news archives]
125 Chambers, 134
126 Chambers, 134-135, Briceno, 2; Rosendal & Andresen, 3
127 Rosendal & Andresen, 3
128 Rosendal & Andresen, 3
129 See: [link to POPS conventions joint meetings]

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Analysis of options for a global institutional framework for the implementation of the UNWC begs the question of whether synergies and inter-linkages exist with current global and regional MEAs, as well as with other regional and basin/sub-basin watercourse agreements? The following section discusses these possibilities within the paradigm of specific thematic ‘clusters’.

3.3.1 Biodiversity

Biodiversity-related MEAs represent the most advanced thematic area for inter-linkages, synergies and coordination (due primarily to UNEP’s central position coordinating several of the MEA secretariats, such as the CBD) with the key initiative being the establishment in 2009 of regional biodiversity MEA focal points. These focal points, hosted by five of UNEP’s regional offices on different continents around the world, ‘work at the regional and national level with countries by providing technical and advisory services, information exchange and capacity-building for synergistic implementation of MEAs’ in order to ‘provide technical and advisory support directly to MEA secretariats, as well as to enhance countries' capacities to implement biodiversity-related agreements’ including the CBD and Ramsar Convention.

Under the CBD and confirmed by the MEA secretariats, each regional focal point has recently been tasked with ‘providing technical and advisory support to the governments with their NBSAP [National Biodiversity Strategic Action Plans] update and revision processes, coordinating training workshops and implementing Global Environment Fund (GEF) related projects’ which is intended to be ‘guiding framework involving all sectors, local communities and policy makers in promoting synergistic actions at the national levels’. Other significant biodiversity-related MEA initiatives include: the creation of joint research, reporting and assessment bodies such as the UNEP World Conservation Monitoring Centre with the goal to ‘provide authoritative, relevant and timely information for countries, MEAs, organizations and companies to use in the development and implementation of their policies and decisions’; the signing of a large number of MoUs between MEA secretariats to agree on a range of formal cooperation instruments; and ‘the formation of new regimes, the potential role in co-ordination and assistance through MEA secretariats, project management in liaison with other organisation, and information work’. From the above discussion of the aforementioned regional biodiversity focal points, along initiatives such as UNEP’s World Conservation Monitoring Centre, UNEP could potentially play a central role in supporting joint implementation of biodiversity-related MEAs that are complementary to the UNWC, regional/basin watercourse agreements and national water laws, and vice versa.

130 See, Rosendal & Andresen, 5-6
131 See http://www.cms.int/news/PRESS/nwPR2012/06_jun/nw_200612_unep_mea_fps.htm
132 See http://www.cms.int/news/PRESS/nwPR2012/06_jun/nw_200612_unep_mea_fps.htm
133 See, http://www.unep.org/delc/NBSAPRevisionProcess/tabid/101090/Default.aspx where it states that regarding the regional biodiversity MEA focal points, the CBD ‘Conference of the Parties (COP) 10 decision X/2, requested UNEP and other international organizations to support the implementation of the Biodiversity Strategic Plan 2011-2020 beginning with the National Biodiversity Strategy and Action Plans (NBSAPs) revision process, and to commence its implementation by 2014’.
136 See, http://www.unep-wcmc.org/about-us_17.html, where it also states that UNEP’s Governing Council, in its decision [Decision GC.22/1/III ] recognised the Centre as ‘UNEPA’s specialist biodiversity and assessment arm providing a range of biodiversity-related services to UNEP, governments, Multilateral Environmental Agreements and their constituent party states, and other bodies in the NGO and private sectors’.
137 Rosendal & Andresen, 13
138 Rosendal & Andresen, 13
The cluster of biodiversity-related MEAs is thus the most evident area where synergies and inter-linkages would occur with the UNWC, regional, basin and watercourse-specific agreements, as well as national water laws. As a point of departure, both the UNWC and the Water Convention share common goals with the principal global MEA in this field - the Convention on Biological Diversity (CBD). On this basis, Brels et al., argue that all three conventions are ‘mutually supportive’ in addressing critical gaps and fragmentation in the international legal and policy framework and each would therefore benefit from exploiting key synergies and inter-linkages to achieve common objectives. To this end, all of these conventions arguably fall within the ‘sustainable development’ paradigm that was central to the CBD and many other global/regional MEAs, and is at the core of the UNWC.

A suggested legal platform for inter-linkages and synergies based on these shared objectives is the promotion of international cooperation over transboundary resources. In this respect, both the Water Convention and UNWC set out specific rules, principles, and procedures for transboundary water management which could help to address gaps in the regulatory framework of the CBD regarding international cooperation for preservation of aquatic ecosystems in transboundary watersheds. As regards the establishment of transboundary agreements and institutions, the Water Convention goes even further than the UNWC in obligating member states to establish basin and watercourse agreements for transboundary water management, yet the UNWC stipulates more detailed procedures regarding data and information exchange in addition to prior notification and consultation for planned measures. These complementary provisions provide ‘a complete and detailed set of rules and mechanisms’ that could effectively support the CBD’s weak legal and policy bases for transboundary cooperation in relation to freshwater biodiversity resources. In parallel, the overall aim of the CBD is to promote the sustainable use of the world’s biological resources; the UNWC generally aims to foster international cooperation for the use and management of transboundary watercourses; and the Water Convention seeks to achieve a similar aim to the UNWC, but more so in a regional context and with a greater focus on protection of transboundary aquatic ecosystems and water quality. See generally, Brels et al., Annex III, for a comprehensive and detailed analysis of the provisions of all three conventions which identifies areas for exploiting synergies and interlinkages.

See generally, Brels et al., 6, 19
See generally, Brels et al., 6, 19
See, Brels et al., 19, on this point state that ‘Arguably, as effective global legal frameworks dealing specifically with the conservation and management of transboundary watersheds, those conventions would foster and support the adoption and implementation of watercourse agreements at the basin level’ that would help to ‘advance the implementation of the CBD’.
See, Brels et al., 19, where they highlight examples of these rules and procedures, including ‘the duties to cooperate and negotiate in good faith, to exchange information regularly, to prevent significant transboundary harm, and to use and protect international watercourses and their ecosystems in an equitable and reasonable manner. Such principles supplement key CBD provisions (i.e., article 5, on international cooperation; article 13(1)(c), on information exchange and interstate consultations; and article 18(1), on technical and scientific cooperation’.
See also, Rieu-Clarke & Pegrum (forthcoming)

See, Brels et al., 12, where they point out that the CBD ‘stresses “the importance of, and the need to promote, international, regional and global cooperation among States” (paragraph 14 of the preamble). The CBD also requires Parties to, “as far as possible and as appropriate, cooperate with other Contracting Parties … on … matters of mutual interest, for the conservation and sustainable use of biological diversity” (article 5)” (author’s emphasis added).
See, Brels et al., 18, positing that their brief analysis ‘shows that, although the relevant CBD programme of work takes into account both water allocation/management and transboundary waters, it lacks specific principles and rules governing transboundary water allocation and management’. They
through the on-going implementation of the CBD and development of related laws and policies, particularly transboundary cooperation via regional biodiversity focal points, ‘biodiversity considerations add significant weight to the case for the wider adoption and implementation of the UN Watercourses Convention and the Water Convention’.\(^{149}\)

Individually, the UNWC and UNECE Water Convention have distinct aspects which would be complementary to the CBD.\(^{151}\) With the central foci of the Water Convention, its Protocols, and non-binding instruments being dually on the preservation and protection of aquatic ecosystems, and water quality for environmental and health purposes, the CBD can assist and benefit in this regard. Brels et al, single out the Water Convention’s adoption in 2006 of recommendations on payment for ecosystem services in integrated water resources management as ‘an example of the convention’s important linkages and synergies with the CBD, especially with respect to the implementation of the ecosystem approach in the context of shared water resources’\(^{152}\). Concurrently, the strong procedural elements codified in the UNWC in relation to data and information exchange on surface and groundwater resources as well as dispute resolution mechanisms, when in force ‘will reinforce inter-State cooperation at the basin level, significantly improving global water governance, and thus enhance the legal regime under the CBD for conserving and sustainably using inland water biodiversity’\(^{153}\).

In sum, the current implementation of the Water Convention, potentially enhanced by the entry into force of the 2003 amendment, coupled with the entry into force and widespread implementation of the UNWC, undoubtedly presents a critical opportunity to utilise synergies and inter-linkages with the CBD and other biodiversity-related MEAs that would be mutually supportive in achieving their collectively shared, and respectively separate, objectives. To be successful, it is clearly apparent from the above analysis that such initiatives must be underpinned by the joint promotion of international cooperation via the establishment of transboundary watercourse and basin agreements where they do no currently exist. On this basis, the UNWC and Water Conventions could effectively ‘supplement and strengthen the CBD programme of work on the biodiversity of inland water ecosystems’\(^{154}\).

### 3.3.2 Wetlands

The Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)\(^{155}\), adopted in 1971, is the primary MEA focusing on issues related to the use, conservation and protection of wetlands of global significance situated within and between national boundaries. It currently has 158 contracting parties, whereby approximately 30% of the total Ramsar wetlands listed are situated within international river basins.\(^{156}\) Specifically regarding international watercourses, the Ramsar Convention provides that

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149 Discusses previously in relation to current best practice on inter-linkages and symmetry within the CBD Secretariat and UNEP’s role in coordination.

150 See, Brels et al, 6

151 See generally, Brels et al, 21-28 for an overview of the inter-linkages and synergies between the CBD and the UNWC; See generally also, Brels et al, 28-33 for an overview of the inter-linkages and synergies between the CBD and the Water Convention

152 See, Brels et al, 19

153 Brels et al, 18

154 Brels et al, 18


156 Rieu-Clarke & Pegrum (forthcoming), 69
‘contracting parties shall consult with each other about implementing obligations arising from the Convention especially in the case of a wetland extending over the territories of more than one contracting party or where a water system is shared by contracting parties’. Hence, scope exists for potential inter-linkages and symmetries between the Ramsar Convention, other MEAs, and the UNWC, regional/basin agreements, and national laws pertaining to transboundary water resources, including international watercourses.

Extensive technical research on the allocation and management of water resources has been conducted under the Ramsar Convention by the Scientific Technical Review Panel (STRP) and external partner agencies. The resulting series of Handbooks for the Wise Use of Wetlands is highly instructive on the possible scientific characteristics of wetland management which could be conducive to synergies and inter-linkages with global, regional, and transboundary basin or watercourse agreements. In particular, Handbooks 6 (Water-related Guidance) and 7 (Water Allocation and Management), collectively explore the linkages between the water resource allocation and management, specifically in the context of river basin management, and the effective functioning of wetland ecosystems. Therefore, while there are preliminary grounds to suggest that technical aspects of water allocation and management under the Ramsar Convention would be compatible and complementary to transboundary watercourse instruments at the global, regional and basin scales, closer examination is required in order to identify and develop any potential synergies and inter-linkages.

The use, conservation, and protection of wetlands are also closely related to the biodiversity cluster and the CBD in particular, especially in relation to aquatic ecosystems and land uses impacting surface and groundwater resources. Significantly, the Ramsar Convention is similar to the CBD on such issues in that it ‘requires cooperation between Parties on matters of mutual interest and highlights the urgent need to improve the allocation and management of water within transboundary inland water systems’. However, with respect to how the UNWC and Water Convention could specifically complement the CBD and Ramsar Conventions relating to the use and management of international watercourses. In this regard, Brels et al highlight that ‘while the CBD has incorporated concerns with transboundary waters into its programme of work on inland water ecosystems, the Ramsar Convention has adopted important guiding tools dealing specifically with interstate cooperation for managing transboundary wetlands’. Specifically, Handbook 17 on ‘International Cooperation’ provides guidance to parties for cooperation with neighbouring States over shared wetlands, including the formation of joint management institutions for implementing transboundary management plans and strategies. Hence, as for the CBD, the detailed legal obligations of

157 Rieu-Clarke & Pegrum (forthcoming), 69, citing Art 5 of the Ramsar Convention (emphasis added by the author)
158 Brels et al, 12
159 See, Brels et al, 12, where it also lists certain applicable handbooks in the series, including ‘Handbook 3 (Laws and Institutions) provides guidance on reviewing laws and institutions to promote the conservation and wise use of wetlands. Handbook 6 (Water-related Guidance) explains the linkages between the allocation and management of water and the functioning of wetlands. Handbook 7 (River Basin Management) explores the role of water management in the context of river basin management. Handbook 8 (Water Allocation and Management) provides extensive policy and management guidance for allocating and managing water resources’.
160 See, Brels et al, 12
161 See, Brels et al, 20, stating that whilst some important work on the ‘understanding and governance of technical and policy issues relating to the management of transboundary inland water systems’ has been conducted under the auspices of the Ramsar Convention, there is a significant need to build upon this body of research.
162 Brels et al, 20
163 Brels et al, 20
164 See, Brels et al, 20
the UNWC and Water Convention for establishing watercourse agreements and related institutions for the purposes of transboundary water management could enhance the implementation of the Ramsar Convention.\textsuperscript{165}

### 3.3.3 Climate Change

Whilst the precise long-term impacts of climate change are not yet known, it is generally agreed that the most significant impacts will be on the earth’s hydrological cycle at the global, regional, and basin levels.\textsuperscript{166} On a global scale, the UN Framework Convention on Climate Change (UNFCCC)\textsuperscript{167} is the over-arching international instrument aimed at addressing the multifarious and interdependent issues associated with climate change. Adopted in 1992, it has been ratified by 192 States, and provides the legal and policy framework governing measures for adaptation, and mitigation of, the impacts of climate change, including to precipitation patterns and in-turn water supply for land and aquatic environments. Its over-riding goal is to provide the basic legal and institutional architecture for more specific agreements to be negotiated at a range of scales targeting the known causes and effects of climate change, whilst taking into account current variables, predicted risks, and the future evolution of this relatively inexact field of science. As specifically concerns international watercourses, the UNFCC obliges contracting parties to ‘develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods’.\textsuperscript{168}

Although detailed research into potential linkages and synergies between transboundary water resource management and climate change mitigation and adaptation measures is only now beginning to emerge, there exist some basic legal and policy interfaces between the UNWC and UNFCCC. Behrmann \textit{et al} have identified four fundamental features of the UNFCCC that would underpin any such connections between the two instruments: the concept of ‘cooperative climate change adaptation’\textsuperscript{169}; regional programmes facilitating implementation; the development of national adaptation programmes of action (NAPAs); and, the ‘minimization of adverse effects from adaptation and mitigation measures’.\textsuperscript{170} They then go further by marrying these aspects with specific substantive rules and procedures of the UNWC and explain how certain provisions individually or collectively reinforce the development of climate change governance and legal/policy mechanisms under the UNFCCC.\textsuperscript{171} Just how these detailed aspects of the UNWC relate to the UNFCCC is outlined below.

Primarily, the UNWC’s comprehensive substantive rules and procedural provisions on transboundary cooperation, including the adoption of basin agreements, will assist in filling considerable gaps in the framework for transboundary freshwater resource management as provided for in the UNFCCC.\textsuperscript{172} In particular, Behrmann \textit{et al} highlight the following key provisions as critical to addressing this issue: the adoption of watercourse agreements under

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\textsuperscript{165} See, Brels \textit{et al}, 20, where they allude to the benefits of the UNWC and Water Convention to the implementation of the Ramsar Convention in so far as ‘practice shows that, not simply guidance, but clear procedural and substantive binding rules are necessary for governing international watercourses and thus enabling interstate cooperation even in situations of water-related conflict across international borders’.

\textsuperscript{166} Brels \textit{et al}, 12, Behrmann, Loures & Swain (forthcoming), 207


\textsuperscript{168} Rieu-Clarke & Pegram (forthcoming), 70, citing Art 4(1)(e) UNFCC.

\textsuperscript{169} Behrmann, Loures & Swain (forthcoming), 209

\textsuperscript{170} Behrmann, Loures & Swain (forthcoming) 209.

\textsuperscript{171} See generally, Behrmann, Loures & Swain, (forthcoming)

\textsuperscript{172} See generally, Behrmann, Loures & Swain, (forthcoming)
Articles 3-4 of the UNWC that take into account climate change factors;\textsuperscript{173} framing the consideration of climatic factors, as well as water rights allocation and benefit-sharing, as an on-going dialogue in any assessments or negotiations to determine equitable and reasonable utilisation of watercourses;\textsuperscript{174} consistent and regular data and information exchanges on the hydrological aspects of climate change impacts to aquatic and land based ecosystems as it relates to watercourses;\textsuperscript{175} the establishment of joint watercourse institutions to deal with shared water resource management and regulation issues could provide a much needed platform for basin-wide and regional planning and implementation of climate change mitigation and adaptation measures impacting communal freshwater resources;\textsuperscript{176} Arts 27 and 28 of the UNWC broadly sets out rules and procedures aimed at preventing or resolving situations where harmful conditions or emergencies arise which encompasses the potential severe future effects on watercourses from climate change; and, with climate change predicted to exacerbate existing detrimental impacts on aquatic ecosystems, including the prevention and abatement of cross-border pollution, Part IV of the UNWC stipulates specific guidelines and processes that could assist in applying the UNFCCC to shared watercourses. Supporting these inter-related elements of international cooperation, the UNWC also reinforces the objectives of the UNFCCC and vice versa via the former’s dispute resolution provisions.

The above legal and policy components underpinning international cooperation will be critical to the implementation of the UNFCC and UNWC in so far as it is generally predicted that ‘through its direct and indirect impacts on water resources, climate change will aggravate the global water crisis and is likely to increase the risk for disputes between and within riparian states’\textsuperscript{177}. ‘Water wars’, as they have been termed, are seen by some as a major threat to the future political stability of basin States.\textsuperscript{178} In seeking to avoid such disputes, the UNWC can provide substantive rules and procedures for climate change mitigation and adaptation programmes at the regional, basin and national level, especially ‘by governing directly interstate relations in the absence of applicable agreements’,\textsuperscript{179} while at the same time, science and policy from the UNFCCC can inform transboundary freshwater management at the global, regional and scales. This complementarity of ‘multi-layered governance’ for effective and cooperative transboundary management of international watercourses is aptly highlighted by Behrmann et al when they state that ‘an effective UNWC can serve as a unified, widely accepted, authoritative and comprehensive global legal framework with minimum standards of cooperation for transboundary watersheds in the face of climate variability and change’\textsuperscript{180} which would in-turn ‘supplement the UNFCCC and water treaties at various levels, and draw states’ attention to the issues at the core of climate change mitigation and adaptation with regard to international watercourses’\textsuperscript{181}.

Broader linkages with other regional and watercourse-specific agreements, as well as other MEAs, are also apparent. The UNWC provides a ‘useful framework’ for integrating research and practice on the impacts of climate change as well as exploring the linkages between water, food and energy in transboundary basins. Considerable linkages to other MEAs,
including the CBD and Ramsar Convention, already exist due to the impacts of climate change on inland freshwater ecosystems and land use management which must be factored into coordination of a global watercourse institution. However, it must be noted that the future of the UNFCCC and the climate change regime more broadly is increasingly uncertain in the wake of perceived flaws and failures related to the last two rounds of international negotiations seeking to set binding carbon emissions targets. Yet, it remains the current global institutional framework for addressing the multifaceted challenges of climate change, consequently any synergies and inter-linkages that will enhance the future implementation and coordination of the UNWC must be taken into account for the time being. Therefore, despite this uncertainty, any ‘linkages between water, aquatic ecosystems, biodiversity and climate change need to be considered’.

3.3.4 Desertification

The hydrological cycle is fundamental to issues of water scarcity, drought and desertification. With 40% of both the world’s surface area and global population situated within areas classified as drylands, addressing the environmental and socio-economic challenges associated with land degradation (which are exacerbated by the impacts of climate change discussed above) is critical to the common goal of sustainable development. As the chief MEA for such matters, the UN Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (UNCCD) focuses on combatting the problems associated with global and regional land degradation across a range of arid and dry-land areas. With 193 contracting parties, the UNCCD is widely supported and also enjoys ‘quasi-universal’ ratification. The over-arching aim of the UNCCD is to alleviate drought and desertification using integrated approaches to sustainable development in dryland areas. This is achieved by facilitating innovative local and regional land use programmes and projects which are concurrently supported by a range of international partner development and funding agencies. As regards transboundary watercourses, the UNCCD member states are required to develop ‘long-term integrated strategies that focus simultaneously, in affected areas, on improved productivity of land, and the rehabilitation, conservation and sustainable management of land and water resources’.

Commonly referred to as the world’s ‘sustainable development’ MEA, there are obvious shared objectives for exploring inter-linkages and synergies between the UNCCD and the UNWC; as well as regional, basin and sub-basin agreements and other MEAs. Firstly, as the goal of ‘sustainable development’ lies at the core of both of these framework conventions they are mutually supportive in so far as the UNWC could assist the UNCCD in terms of providing substantive and procedural rules for integrated water and land resource management at the transboundary and regional levels. Conversely, the UNCCD is more detailed in terms of national land use action plans and programmes which could therefore

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182 Brels et al, 12
183 Behrmann, Swain & Loures, (forthcoming), 221
185 Behrmann, Swain & Loures, (forthcoming), 221
186 Rieu-Clarke & Pegrum, (forthcoming), 70
187 Behrmann, Swain & Loures, (forthcoming), 222
188 Behrmann, Swain & Loures, (forthcoming), 222
189 Rieu-Clarke & Pegrum, (forthcoming), 70, citing UNCCD Art 2(2) (emphasis added by original author).
190 Behrmann, Swain & Loures, (forthcoming) 221
191 See generally, Behrmann, Swain & Loures, (forthcoming)
192 See generally, Behrmann, Swain & Loures, (forthcoming)
assist the development and implementation of the UNWC at the local level. Secondly, there is a common focus on environmental protection within both conventions. Specifically, Part IV of the UNWC and Articles 2(2), 3(c), and 4(2)(d) of the UNCCD ‘reinforce each other in their common recognition of the necessity to protect and preserve ecosystems, thriving to integrate the ecological and economic dimensions of sustainable development’.

Thirdly, and common to other MEAs and basin agreements, there is a mutual emphasis on international cooperation. This recognised need for collaborative efforts in reaching their separate objectives is evinced in the various provisions of both conventions, such as the UNWC’s detailed measures on information exchange between States, dispute resolution procedures, and promotion of transboundary watercourse agreements and institutions, along with the UNCCD’s provisions explicitly advocating for the development of joint programmes for sustainable transboundary natural resource management. Hence, Behrmann et al, purport that the UNWC and UNCCD are effectively ‘in harmony with each other in promoting cooperation between states that share natural resources’. Finally, there is a strong development and participation focus in the UNCCD that is somewhat commensurate with the UNWC. However, the UNCCD provides more detail than the ‘equitable and reasonable utilisation’ paradigm of the UNWC with regard to establishing ‘strong links between development and desertification and droughts’ as well as placing a high degree of emphasis on the involvement of local populations and NGOs in programme development.

Due to the close symbiotic relationship between water resource management, climate change, and land degradation in water scarce and drought affected areas, there are ostensibly sound reasons for further investigating potential inter-linkages and synergies between the UNCCD and the UNWC, related regional, basin and sub-basin agreements, as well as other MEAs such as the UNFCCC, CBD and Ramsar Conventions.

3.3.5 Related international legal regimes

Due to the complex and highly inter-dependent nature of land use and water issues, the possible extent of future inter-linkages and synergies in this field go well beyond MEAs and watercourse agreements. Bourgeoing agricultural production caused by greater food demand means that trade and investment regimes such as the World Trade Organization (WTO) will have an increasing impact on this legal framework. There is also the added question of how transboundary watercourse agreements at global, regional, basin and sub-basin scales, as well as water laws and policies at the national, sub-national and local scales, link to human rights regimes such as the Universal Declaration of Human Rights at the global level and the European Convention on Human Rights at the regional level, when considering the practical legal impact of the UN GA Declaration on the human right to water in 2010. Moreover, a global watercourse regime would be ideal for strengthening coordination of these multifaceted and evolving legal instruments with transboundary watercourse agreements, especially with the UNWC and UNECE Water Convention operating at the global level.

3.4 TRANSBOUNDARY FRESHWATER AGREEMENTS: INTER-LINKAGES, SYNERGIES AND COORDINATION

See generally, Behrmann, Swain & Loures, (forthcoming)
Behrmann, Swain & Loures, (forthcoming), 226
Behrmann, Swain & Loures, (forthcoming), 227
Behrmann, Swain & Loures, (forthcoming), 228
Behrmann, Swain & Loures, (forthcoming), 229
Having examined different thematic clusters of water-related MEAs and how they can mutually support implementation of the UNWC, a more obvious sphere of international agreements for inter-linkages, synergies and coordination are those that specifically concern transboundary freshwater resources. Despite some fundamental similarities in the aims, objectives, provisions and outcomes between the majority of transboundary freshwater agreements that would support their joint implementation with the UNWC, there is also a high degree of variance in both the substantive and procedural content of such agreements. Not only does this problematise inter-linkages, synergies and coordination amongst transboundary water agreements, but in-turn, it complicates such connections with the implementation of the UNWC. Hence, it is important to assess the current legal and institutional architecture for transboundary water resources at the global, regional and basin levels, when considering the question: why is there a need for such global legal framework instruments?²⁰⁰

From a legal and institutional perspective, severe fragmentation and gaps currently exist across all regions of the globe. As highlighted by Dombowsky’s estimation that, ‘of the 276 international river basins in the world there are 62 with international river basin organizations, of which 26 are bipartite and 36 are multipartite, whereas only seven basin organizations are basin-wide.’²⁰¹ Furthermore, compounding this legal and institutional fragmentation is what some have categorised as ‘asymmetry’ at the different scales of transboundary water resources management: ‘functional asymmetry’ in institutional mandate and coordination at the international/global level; ‘geographic asymmetry’ in stakeholder imperatives, legal mechanisms, and institutional capacity at the regional level; ‘hydrological asymmetry’ in water resources, infrastructure requirements and institutional management responses at the basin level; and ‘capacity asymmetry’ in domestic policies, resources, and enabling institutions at the nation level.²⁰² Critical elements of these asymmetries could be addressed through a global institutional framework for transboundary watercourses, as will be outlined later.

While notable examples of effective governance arrangements exist at the regional, basin and sub-basin levels, UN-Water sum up the situation as follows,

Existing agreements are sometimes not sufficiently effective to promote integrated water resources management due to problems at the national and local levels such as inadequate water management structures and weak capacity in countries to implement the agreements as well as shortcomings in the agreement themselves (for example, inadequate integration of aspects such as the environment, the lack of enforcement mechanisms, limited – sectoral – scope and non-inclusion of important riparian States).²⁰³

It was indeed for many of the challenges noted above that the UN General Assembly (‘UNGA’) first conceived of the UNWC. UNGA Resolution 2669 of 8th December 1970 recognised the challenges of population growth, increasing water demands, water scarcity and degradation; as well as ‘the importance of legal problems relating to the use of international watercourses’.²⁰⁴ While recognising the various bilateral and multilateral arrangements in

²⁰⁰ This architecture is further explored in sections 4, 5 and 6 of this report.
²⁰² See specifically, WWF & DFID, ii, 29
place, the UNGA also alluded to fragmentation, thus recognising that, ‘the use of international rivers and lakes is still based in part on general principles and rules of customary law’.205

In seeking to determine the value added of multi-basin legal agreements for addressing transboundary water issue, it is important to recognise the role that regional multi-basin agreements have played in addressing fragmentation. For instance, 20 years of successful implementation of the UNECE Water Convention at the regional level would appear to testify to the fact that there is indeed an important role that these framework instruments can play in supporting the implementation of basin and sub-basin specific agreements. The Southern African Development Community’s 2000 Revised Protocol on Shared Watercourses (‘SADC Revised Protocol’)206 also attests to the benefit of adopting multi-basin framework agreements relating to transboundary waters, within a multi-level governance context.

Reinforcing the urgency to address the legal and institutional fragmentation of watercourse agreements at the regional, basin and sub-basin level is the current context of global transboundary water instruments. With the ILC Draft Articles going before the UNGA in September 2013 to decide their final form and the UNECE Water Convention’s 2003 Amendment likely, the synergies and inter-linkages between these global instruments and the UNWC and how it may best be coordinated with other agreements in the future.

A distinct window of opportunity therefore presents itself to build upon and integrate existing global, regional, and basin-specific watercourse agreements and institutions, along with global and regional MEAs, into a global institutional framework for transboundary freshwater resources. Any such institution must therefore seek to exploit major synergies and inter-linkages between watercourse agreements in order to enhance the effective implementation of the UNWC and transboundary water agreements at all levels. The global and regional conventions highlighted above, along with some of the main basin/sub-basin agreements, and their related institutions are subsequently examined below in relation to their roles, relevance, and relationships within the global architecture for transboundary water resources.

3.4.1 The ILC’s Draft Articles on Transboundary Aquifers

During the work of the ILC on the law of the non-navigational uses of international watercourses, a number of Special Rapporteurs emphasised the importance of the groundwater. Early on in the work, Schwebel noted that, ‘while surface runoff is the most visible source of moisture for watercourses, it is less important than groundwater, which is believed to constitute 97 per cent of the water on earth, excluding oceans, ice-caps and glaciers.207 Evensen reiterated Schwebel’s sentiments and concluded that, ‘ground-water resources will to a large extent be a relevant component or part of an international watercourse and should as such fall under the applicable rules and principles laid down in a framework convention on the non-navigational uses of international watercourse’. However, Evensen pointed out that, ‘ground-water resources may form totally independent resources unrelated to a specific surface watercourse’.208 McCaffrey focused attention on groundwaters during his time as Special Rapporteur, noting that ‘the volume of groundwater

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209 Evensen, J. para 30.
alone lends weight to the argument for including it within the scope of the draft articles, for it is bound to be subject to increasing demands by watercourse States in the coming years and decades.210

Schwebel also observed that, ‘under certain geological conditions, groundwater may be confined between impervious layers of rock. Such aquifers… can by very large.’211 It was further recognised by both McCaffrey and Schwebel that such ‘confined’ aquifers were likely to be limited given that water is rarely stationary, and often flows from the charging areas, to surface areas of natural discharge such as springs and lakes.212

A case was therefore made for the need to include both surface water and connected groundwater in the work of the ILC on the law of the non-navigational uses of international watercourses. Ultimately, it can therefore be concluded that groundwater was given significant attention during the work of the ILC, and ultimately was included in the definition of ‘watercourse’ that appeared in the 1994 ILC Draft Articles and the UNWC. Article 2(a) of the latter instrument accordingly defined a ‘watercourse’ as, ‘a system of surface and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus’.213

The issue of confined was addressed by the ILC through a Resolution on Confined Transboundary Groundwater, which was included along with the 1994 ILC Draft Articles.214 The Resolution recognised, ‘the need for continuing efforts to elaborate rules pertaining to confined transboundary groundwater’, and considered that, ‘the principles contained in its draft articles on the law of the non-navigational uses of international watercourse may be applied to transboundary confined groundwater’.215 While excluding confined groundwater from the scope of the 1994 Draft Articles, the ILC urged States to be guided by the Articles in regulating transboundary confined groundwater.216

Then in 2012, subsequent to the work on the law of the non-navigational uses of international watercourses, the ILC included the topic of ‘shared natural resources’ in its programme of work.217 Rosenstock – who was also Special Rapporteur at the time of the adoption of the 1994 ILC Draft Articles, therefore suggested that, ‘the Commission could usefully undertake a topic on “Shared natural resources” focused exclusively on water, particularly confined groundwater, and such other single geological structures as oil and gas’ [emphasis added].218 Chusei Yamada was appointed as special rapporteur, and he, ‘considered that it would be

211 Id. On the linkages with surface water, McCaffrey went on to note that while in exceptional cases groundwater might exist in areas where there is virtually no surface water, it is normally closely associated with rivers and lakes” ….
212 1994 ILC Draft Articles on the Law of Transboundary Aquifers
213 In 1992 Special Rapporteur Robert Rosenstock suggested the inclusion of all groundwater, including confined groundwater, in the scope of the draft articles, but his proposal was ultimately rejected. The ILC was reluctant to broaden the scope of its work to include an issue area that it had not considered in detail while formulating the articles, see
215 Id.
216 Id.
218 Id. p. 141.
appropriate to begin on the codification of groundwaters as the follow-up of the Commission’s previous work on the codification of the law of surface waters’ [emphasis added].

By representing the ILC’s early work as solely focusing on surface waters, this statement demonstrates a more general apathy to link this later work on aquifers to the early work on watercourses – defined as a system of surface and groundwaters. It has been argued that one factor contributing to such apathy was the status of the UNWC at the time. By 2002, there were only 12 contracting parties to the Convention, and no new ratifications were deposited in 2003 and 2004.

Following commencement of the work in 2002, a set of 19 Draft Articles were adopted on first reading by the ILC in 2006 and submitted to Governments for comments and observations by 16 January 2008. The ILC Draft Articles adopted on first reading were also debated in the Sixth Committee of the UN General Assembly in 2006 and 2007. All in all these written and oral comments reflected the opinions of 47 governments. Following these comments and observations, and after further debate in the ILC, the Draft Articles were revised and adopted upon second reading in 2008. In the same year the UN General Assembly encouraged states, ‘to make appropriate bilateral or regional arrangements for the proper management of their transboundary aquifers, taking into account the provisions of [the] draft articles’. At the same time, the UN General Assembly decided to examine, ‘the question of the form that might be given to the draft articles’ in a subsequent session.

Pursuant to UN General Assembly Resolution 66/104 it was decided to include the ILC Draft Articles in the Agenda for its sixty-eighth session in 2013.

The ILC Draft Articles are made up of 19 Articles separated into four parts. The first part deals with issues of scope and use of terms; the second part sets out general principles; part three relates to protection, preservation and management; and part four covers miscellaneous provisions, including technical cooperation, emergency situations, protection in times of armed conflict, and data and information vital to national define and security.

In terms of scope, the ILC Draft Articles apply to the, (a) utilisation of transboundary aquifers of aquifer systems; (b) other activities that have or are likely to have an impact upon such aquifers or aquifer systems; and (c) measures for the protection, preservation and management of such aquifers or aquifer systems.

‘Aquifer’ is defined in the Articles as, ‘a permeable water bearing geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation’; whereas ‘Aquifer system’ means ‘a series of two or more aquifers that are hydraulically connected’. A ‘transboundary aquifer’

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221 See UN Treaty Collection, Multilateral Treaties Deposited with the Secretary General, http://treaties.un.org/Pages/DB.aspx?path=DB/MTDSGStatus/pageIntro_en.xml.
223 Id.
228 Article 1(a) – (c).
229 Id.
or ‘transboundary aquifer system’ is defined respectively, as ‘an aquifer or aquifer system, parts of which are situated in different states’.  

The scope of the ILC Draft Articles raises a number of issues in relation to the UNWC. Firstly, it can be seen that the word ‘transboundary’ is preferred over ‘international’. Yamada noted that the term ‘international’ was … objected as it might suggest internalisation of aquifers’, and ‘the Commission adopted the term ‘transboundary’ to allay these misgivings’.  

It could be argued that this represented a step backwards from the text of the UNWC, and international cooperation more generally; although the term ‘transboundary’ is also commonly used, see for example the UNECE Water Convention (discussed below).

A second important point on scope is the definition of ‘transboundary aquifer’ or ‘transboundary aquifer systems’. By including the criteria that such an aquifer or aquifer system is situated in different states, it is unclear whether an aquifer solely located in one state, but connected to another state via a watercourse system, e.g. an aquifer located entirely in an upstream state may contribute to surface water flows in a downstream state, would be covered by the ILC Draft Articles.

Additionally, the broad definition of aquifers contained in the ILC Draft Articles raises questions over the compatibility of the latter to the UNWC. No distinction is made between aquifers that form part of a watercourse system, and confined aquifers, with the conclusion being that the former type of aquifers fall under the scope of both the ILC Draft Articles and the UNWC. This conclusion is confounded by Article 1(b) and (c) of the ILC Draft Articles which cover the activities impacting aquifers or aquifer systems, and measure for protection and preservation. Such measures could be potentially far-reaching, and would certainly encompass qualitative and quantitative influences on aquifers from an international watercourse.

A further divergence between the UNWC and the ILC Draft Articles is contained in Article 3 of the latter instrument, which stipulates that, ‘each aquifer State has sovereignty over the portion of a transboundary aquifer or aquifer system located within its territory. It shall exercise its sovereignty in accordance with international law and the present articles.’ No such provision is contained in the UNWC. As McCaffrey, succinctly notes,

‘If the subject matter being regulated is an immovable part of the territory of states, it is only natural to conceive of states as having “sovereignty” over it. But if the subject matter is some-thing that moves from one state to another, from underground to surface, from surface to atmosphere, from atmosphere back to surface, and so on in the hydrologic cycle, the notion that states have sovereignty over it seems a far from perfect match.’

Given the definition of an aquifer as being both the ‘permeable water bearing geological formation underlain by a less permeable layer’ and ‘the water contained in the saturated zone

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230 Article 1(2)(c), 2008 ILC Draft Articles.
232 Article 1(2) of the UN Charter stipulates that a key purpose of the United Nations is, ‘to achieve international co-operation in solving international problems of an economic, social, cultural or humanitarian character’ Charter of the United Nations, 557 UNTS 143 (adopted 26 June 1945, entered into force 24 October 1945).
233 2008 ILC Draft Articles.
of the formation’, the approach of the ILC Draft Articles is both problematic and inconsistent with the approach taken by the UNWC.

Interestingly, questions relating to the compatibility of the UNWC and the ILC Draft Articles were clearly recognised by the ILC during the preparation of its work on the latter. At one stage the Special Rapporteur even proposed an article that read:

‘… when the States parties to the present draft articles are parties also to the Convention on the Law of the Non-navigational Uses of International Watercourses, the provisions of the latter concerning transboundary aquifers or aquifer systems apply only to the extent that they are compatible with those of the present draft articles.’

While this Article was subsequently removed, a key issue that must be addressed is how the inconsistencies between the UNWC and the ILC Draft Articles might be addressed. In this regard, Allan, Loures and Tignino argue that:

‘…groundwater resources require special rules under international law due to their unique characteristics, such as their greater vulnerability to long-term damage from contamination and over-exploitation, the need to protect the recharge process and the fact that groundwater is not always directly hydraulically connected to surface waters. Such special rules, however, do not entail the development of an independent legal regime, but rather reflect the need to apply and adjust general international water law to the special case of groundwater.’

Loures and Dellapenna, further suggest that the ILC Draft Articles should be developed into a protocol to the UNWC:

‘The UN General Assembly should consider adopting a protocol to the UN Convention to create a strong foundation for global freshwater policy. The convention has served as the primary basis for the elaboration of the ILC Draft Articles and thus to the development of international ground-water law. Adopting them as a protocol would be the logical outcome of this process. The convention’s substantive provisions guide decision-making and interstate relations through its binding procedural rules, forming ‘a comprehensive framework to address the multitude of issues arising out of present and future conflicts over water.’ Unifying the law on transboundary river basins and aquifers would reflect sound science, simplify implementation of international law, and enable integrated water resources management in a transboundary context and at the basin and border-region scales.’

With a view to the UNWC’s on-going advancement, probable future adoption and entry into force, it is essential from this point onwards to factor in possible integration options with the ILC Draft Articles. While this section has provided significant justification for need to

237 Loures & Dellapenna, 62.
238 The issue of integration in the future is summarised by Rieu-Clarke and Loures, at 32, where they point out that because ‘the Convention is still not in force, it is possible that the draft articles are eventually adopted as a separate, independent treaty, rather than a protocol to the Convention. This outcome would run counter to the goal of promoting integrated water resources management. Hence, once in force, the Convention will be politically better suited to serve as a mother treaty for future protocols adopted with the intent of progressively developing treaty law in the field’.
examine such options, the modalities of how this integration might take place will be explored later in this report.

3.4.2 Regional Watercourse Agreements & Institutions

3.4.2.1 UNECE Water Convention

Whilst for reasons outlined previously the UNECE Water Convention will soon essentially function as a global transboundary water agreement, it was originally conceived as a predominantly regional framework convention and so will be evaluated in this context. Adopted in 1992 and entered into force in 1996, it is one of two ‘regional’ agreements focusing on the use, management and protection of transboundary freshwater resources (the other is the SADC Revised Protocol, discussed below). Its primary aim is to ‘strengthen national measures for the protection and ecologically sound management of transboundary surface waters and groundwaters’ and it incorporates a range of binding and non-binding instruments. As a mostly ‘pan-European organization’ whose remit includes environmental matters, UNECE member States are the broad geographical focus of the UNECE Water Convention. In relation to transboundary waters, the UNECE Water Convention also laid the foundations for the European Union’s Water Framework Directive which ‘builds on the experience and knowledge acquired through the implementation of that treaty’. As highlighted earlier, the UNECE Water Convention will soon become open to accession by non-ECE member States once the 2003 amendment adopted at the last MoP becomes operational, most likely by the end of 2013.

The UNECE Water Convention is a comprehensive legal framework Convention in so far as it sets out key, over-arching objectives that are to be achieved in the realm of international cooperation concerning transboundary freshwater resources. These key objectives include: ‘strengthening national and international actions aimed at the protection and ecologically sound management of transboundary waters, both surface waters and groundwaters, and related ecosystems; prevention, control, and reduction of transboundary pollution; reasonable and equitable utilization of transboundary water resources’. In achieving these objectives,

239 See <http://www.unece.org/env/water/>
241 Member States of the UNECE are: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uzbekistan. See: <http://www.unece.org/oes/member_countries/member_countries.html>
242 Wouters & Vinogradov, 56
243 For an overview of the EU Water Directive Framework, its aims and general provisions, see Wouters & Vinogradov, 60-61
245 Hence, as Tanzi (2013 forthcoming) alludes to, the relationship between the Water Convention and the UNWC ‘gains special relevance at a time when the entry into force of the UNWC appears imminent, just like the entry into force of the amendments to the UNECE Water Convention that would open accession to it by non-UNECE countries’.
246 Wouters & Vinogradov, 56
significantly, the UNECE Water Convention adopts a ‘two-tiered approach’\textsuperscript{247} in so far as it firstly sets out general obligations in Part I of the Convention that apply to all State parties.

Part II of the UNECE Water Convention stipulates more specific duties that must be implemented by ‘Riparian States’\textsuperscript{248} via specific international agreements pertaining to the particular transboundary water resources that they border and share. The obligations contained in Part II relate generally to the protection of freshwater ecosystems through stringent safeguards on transboundary pollution and water quality monitoring standards. In this respect, the duties codified in the UNECE Water Convention are ‘more detailed than one would generally expect to find in an umbrella agreement; this is especially true with respect to provisions contained in Part II’\textsuperscript{249}. This additional level of detail regarding State responsibility in the main text of the Convention, along with its subsidiary binding and non-binding instruments, can be seen dually as advantageous to the development of an integrated, multi-scale global regime with the UNWC, but yet may potentially hinder possible global ratification, especially in developing countries, if the 2003 amendment enters into force. Such considerations will be explored in the following Section within the discussion on potential scenarios and institutional options.

Displaying the significant evolution of this particular regime in its relatively short lifetime, the UNECE Water Convention has also adopted two protocols as well as various guidelines, assessments and non-binding declarations. The Protocol on Water and Health, which entered into force in 2005, aims to ‘protect human health and well-being by better water management, including the protection of water ecosystems, and by preventing, controlling and reducing water-related diseases’\textsuperscript{250}. It is the first Protocol of its kind in that it was adopted specifically for the purposes of securing an adequate supply of potable water for Riparian States via effective sanitation and water quality monitoring standards within the broader strategic framework of IWRM. The overall aim being to protect human health through the protection of aquatic ecosystems and the freshwater resources they provide for drinking and sanitation purposes. In order to attain this over-arching goal, State parties are required to set targets and implement standards for monitoring and maintaining both the quality of potable water and any discharges into freshwater resources; acting in concert with certain standards for water supply and treatment.\textsuperscript{251} The Protocol stipulates that these standards must be determined in accordance with internationally recognised benchmarks, referring specifically to ‘the World Health Organization (WHO) guidelines for drinking-water quality and the WHO/UNEP (UN Environment Programme) guidelines for the safe use of wastewater and excreta in agriculture and aquaculture, thus creating another link stretching beyond the UNECE institutional boundaries’\textsuperscript{252}. This aspect ties into the institutional arrangements whereby the Protocol’s secretariat functions are jointly administered by the UNECE and WHO/EURO Secretariats, demonstrating some critical elements of institutional coordination already established under the UNECE Water Convention regime.\textsuperscript{253}

The Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (Civil Liability Protocol), adopted in 2003 but not yet in force, gives ‘individuals affected by the transboundary impact of industrial accidents on international watercourses… a legal claim for adequate and prompt

\textsuperscript{247} Wouters & Vinogradov, 56
\textsuperscript{248} Riparian States are defined in the UNECE Water Convention as those States who are parties to the Convention and which border specific transboundary freshwater resources.
\textsuperscript{249} Wouters & Vinogradov, 56
\textsuperscript{250} See: http://www.unece.org/env/water/pwh_text/text_protocol.html
\textsuperscript{251} See, Wouters & Vinogradov, 58
\textsuperscript{252} Wouters & Vinogradov, 58
\textsuperscript{253} Wouters & Vinogradov, 58
compensation. The result of a joint initiative carried out under the auspices of the UNECE Water Convention and the UNECE Industrial Accidents Convention, its aim was to fill ‘a significant gap in the regional legal framework, a gap that became particularly obvious after a series of pollution accidents involving transboundary waters’. In seeking to address the shortcomings of existing civil liability regimes at the time and provide more legal remedies for victims of transboundary pollution, the Protocol aims to provide a ‘comprehensive regime for civil liability, including adequate and prompt compensation for transboundary damage caused by industrial accidents affecting transboundary watercourses’. To this end, strict liability is imposed on all operators causing transboundary damage to freshwater resources via pollution, subject to certain common limitations for such civil liability regimes. Significantly, the Protocol provides private citizens recourse to seek compensation from operators found responsible for transboundary damage in regards to ‘personal injury and harm to property and other legally protected interest, as well as the cost of response measures and measures of reinstatement of the impaired transboundary waters’.

Non-binding instruments, especially guidelines, and declarations have been developed over time primarily in order to help bolster implementation of the more specific obligations of the UNECE Water Convention and its Protocols. In effect they provide greater clarity and precision for State parties on how to act in accordance with the Convention and its Protocols in order to fulfill their legal obligations. It is widely acknowledged that despite their non-binding nature, given their rapid proliferation in such a relatively short amount of time, the suite of subsidiary instruments which have been adopted is not only extremely impressive, but also collectively they have made a significant contribution to strengthening the implementation of the UNECE Water Convention and its Protocols. Most crucially, the Guide to Implementing the Convention, which was developed by the Legal Board and adopted by the MoP in 2009, is the primary subsidiary instrument which aims to provide strategic and detailed (yet non-binding) directions for State parties on how to meet their legal obligations under the Convention.

The comprehensive range of issues covered by other instruments of the UNECE Water Convention regime includes, but is not limited to, some of the following documents: guidelines adopted in 1993 on the ecosystem approach in integrated water resource management; recommendations adopted in 1996 regarding measures to ‘prevent, control, and reduce groundwater pollution from chemical storage facilities and waste disposal sites’; guidelines adopted in 2000 for monitoring and assessment of transboundary rivers, and transboundary groundwaters; a guidance paper produced in 2009 regarding water and

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255 Wouters & Vinogradov, 58; The most notable of these incidents was the Baia Mare mine tailings spill in Romania which resulted in cyanide wastewater polluting the Lapis-Tisza-Danube river system which in-turn had severe impacts downstream in Serbia and Hungary.
256 Wouters & Vinogradov, 58
257 Wouters & Vinogradov, 58
258 Wouters & Vinogradov, 58
climate change adaption; and, a set of guidelines published in 2012 regarding good practices to ensure equitable access to water and sanitation under the UNECE Water Convention.

Regarding the potential development and integration of the ILC Draft Articles on Transboundary Aquifers with the UNECE Water Convention as well as the UNWC, it is crucial to acknowledge that the UNECE Water Convention’s Legal Board conducted a study on the legal application of the Convention to transboundary groundwaters. Based on the results of this preliminary study released in 2011, it was decided that the Legal Board should ‘elaborate a set of model law provisions serving as a guidance for drafting bilateral or multilateral agreements or protocols on transboundary groundwaters’. These model provisions on transboundary groundwaters were presented to the sixth MoP of the UNECE Water Convention in Rome, Italy in November 2012. Reinforcing the regime’s application to transboundary groundwaters, the Convention’s Protocol on Water and Health also ‘sets out the obligations for its Parties in the areas of water supply and sanitation which require respective action for the management and protection of groundwaters that, whether in domestic or transboundary aquifers, should be considered as one of the sources of water supply’.

Many of the above subsidiary instruments have been developed to support the implementation of particular projects or initiatives under the UNECE Water Convention and its Protocols. The aim is thus to ‘operationalise’ the policies and strategies that fall within the overall regime of the Convention and its Protocols or under specific agreements between Riparian States. Projects that have been instigated through the ambit of the UNECE Water Convention encompass a vast spectrum of issues, yet many are geographically and scale specific in nature. The Aggtelek/Slovak Karst groundwaters pilot project initiated between Hungary and Slovakia for the Sara River Basin Management Plan which targeted the issue of capacity building for monitoring and assessment is one such example, whereby its successful completion in-turn spurred a number of similar follow up proposals for implementation in other geographical areas within the region. Conversely, the first (2007) and second (2011) Assessment of Transboundary Rivers, Lakes, and Groundwaters provide a comprehensive and detailed examination of the ‘status of transboundary waters in the European and Asian parts of the UNECE region, covering more than 140 transboundary rivers, 25 transboundary lakes, about 200 transboundary groundwaters and 25 Ramsar Sites or other wetlands of transboundary importance’. Crucially, for the following examination of possible inter-linkages and synergies with the Convention, these assessments were conducted in close collaboration with the secretariat and subsidiary working groups of the Ramsar

265 See: http://www.unece.org/index.php?id=29170
267 See: http://www.unece.org/fr/env/water/groundwaters_activ.html
268 See: http://www.unece.org/fr/env/water/groundwaters_activ.html
271 See: http://www.unece.org/env/water/publications/pub/second_assessment.html; for the full publication, see:

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Certain UNECE Water Convention projects focus especially on sub-regional implementation, such as the Capacity for Water Coordination Project. Its aim was to strengthen the capacity of transboundary water management in the Eastern Europe, the Caucasus and Central Asia (EECCA) by providing funding for multidisciplinary training over three years for national experts involved in IWRM from State parties to the Convention. Via a series of training workshops resulting in bi-lingual (English and Russian) outcome documents for dissemination, the project’s intention was thus to create a framework and network of EECCA experts for ‘cross-fertilization and exchange of experience between river basins and countries on regulatory, institutional, methodological and other aspects of integrated management of transboundary waters, and, at the same time, bring in valuable experience from other parts of the UNECE region.

Other projects have been firmly driven by institutional bodies formed under the Convention to address particular issues. Sometimes these projects are conducted in collaboration with parties from other international agreements where scope for cooperation is evident. This is the case regarding the current development of ‘a checklist/methodology for harmonized contingency planning for accidents with potential impacts on transboundary watercourses’ via the Joint Expert Group of the Water and Industrial Accidents Convention. In this instance, signatories to the UNECE Water Convention and the UNECE Convention on the Transboundary Effects of Industrial Accidents decided to cooperate on developing a mutual checklist as described above due to the inter-linkages and synergies apparent between both Conventions on this specific issue. Hence, due to the considerable experience in both strategising and ‘operationalizing’ such a broad spectrum of projects, the UNECE Water Convention undoubtedly provides many lessons to utilise at the regional, sub-regional, basin and national levels in order to assist with the effective implementation of the UNWC upon its likely entry into force.

Institutionally, the UNECE Water Convention has a relatively well-organised institutional structure which, as opposed to the UNWC, was provided for in the text of the Convention. Firstly, there is a formal MoP that convenes once every three years, along with a Secretariat and a Bureau that together broadly support the MoP and other organisational and logistical elements in relation to strengthening coordination and in-turn improving the implementation of the Convention. For particular issues identified in the implementation of the Convention that need to be addressed, a number of permanent and ad-hoc working groups have been established. The Working Group on Integrated Water Resources Management (IWRM) focuses on ‘intersectoral activities’ that support IWRM activities in the implementation of the Convention. Thus, its over-riding aim is to promote initiatives that ‘prevent, control and reduce transboundary impacts and thereby prevent damage to the environment; promote the ecosystem approach in the framework of integrated water resources management; and ensure

274 See: http://www.unece.org/env/water/cwc.html
275 See: http://www.unece.org/env/water/cwc.html
278 Part III UNECE Water Convention
conservation and, where necessary, restoration of water-related ecosystems’ and, more specifically, ‘payments for ecosystem services;…. prevent accidental water pollution; and to further adaptation to climate change in the transboundary context, including floods and droughts management’.

The other key subsidiary organ of the UNECE Water Convention is the Working Group on Monitoring and Assessment. The focus of this institutional arm of the UNECE Water Convention is ‘to assist Parties bordering the same transboundary waters in establishing and implementing joint programmes for monitoring the conditions of transboundary waters, including floods and ice drifts, as well as transboundary impacts’. Additionally, this Working Group has been the given the mandate to lead on the task of preparing periodic assessments on the water quality status of transboundary watercourses (surface and groundwaters) and lakes that fall within the boundaries of member States. In-turn, these are used as indicators ‘for measuring progress in the implementation of the Convention’. More broadly, the Working Group on Monitoring and Assessment aims to promote and facilitate the regular exchange of data and information between State parties on the environmental conditions of shared transboundary freshwater resources. Notably, due to the need to consider monitoring and assessment in many aspects of IWRM, there is close collaboration between the Working Group on Monitoring and Assessment and with the Working Group on IWRM, often via joint projects. Therefore, together, these two Working Groups form the two main subsidiary bodies of the UNECE Water Convention established by the MoP.

Smaller organs exist within the institutional structure of the UNECE Water Convention and its Protocols that deal with more specific technical, scientific and legal aspects of the regime. Regarding specifically legal issues, between 2007 and 2009, the Legal Board (together with the Working Group on IWRM) focused its work on the development of the Guide to Implementing the Convention, which as noted previously is the central document for State parties providing them with detailed instructions on how they can seek to meet their legal obligations under the Convention. Since then the Legal Board has focused on developing a framework for monitoring compliance and enforcement regarding implementation of the Convention which it is intended to be tabled to the MoP in Rome in November 2012 for possible adoption.

From a scientific and logistical perspective, The Task Force on Water and Climate is ‘responsible for activities related to adaptation to climate change, including flood and drought management’. Similarly to the Legal Board, from 2007 to 2009 they worked in close collaboration with the Task Force on Extreme Weather Events (established under the Protocol on Water and Health) to prepare an instructional document, Guidance on Water and Adaptation to Climate Change, which ‘provides governments with strategic recommendations on how to implement adaptation in the water sector and throughout water-related policy sectors addressing in particular transboundary aspects’. Since the report was adopted at the MoP in 2009, these two bodies have focused on developing and implementing pilot projects on climate change adaptation. It is important to note for the later discussion of the potential outcomes for global membership of the UNECE Water Convention that the joint efforts of the Task Force on Water and Climate and the Task Force on Extreme Weather Events are seen as being at the forefront of collaborative international projects regarding climate change.

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adaptation for transboundary freshwater resources. 289 This is reflected in their close collaboration with other key international institutions such as European Commission, UNDP, UNEP and the World Migration Organisation on climate change adaptation pilot projects in the UNECE region.290

As noted previously, a Joint Ad-Hoc Expert group on Water and Industrial Accidents exists between State parties to the UNECE Water Convention and the Industrial Accidents Convention, which has been, and continues to be, extremely proficient in developing a range of guidelines on related issues, as well as supporting the drafting of the Protocol on Civil Liability.291 Finally, the International Water Assessment Centre, which was established in 2000 at the second MoP as the ‘operational arm’ of the Convention and its Protocols in order to ‘transform these instruments’ obligations into concrete action on the ground’292. Formally inaugurated in 2009 and hosted by Slovakia, it is a collaborative institution between all the State parties and subsidiary organs. From 2010 to 2012 it has focused its work specifically on ‘supporting pilot projects and providing input to the preparation of the second Assessment of Transboundary Rivers, Lakes and Groundwaters’, mentioned above.293

Given the abovementioned legal provisions and subsequent areas of work under the UNECE Water Convention, it is extremely pertinent to examine its legal compatibility with the UNWC and other transboundary water agreements in order to assess how its programmes and pilot projects can support the implementation of the UNWC in particular, as well as water laws more broadly. At the global interface, from a strictly legal standpoint, the UNECE Water Convention and UNWC vary on some specific matters but yet, in some part due to this divergence, also complementary in many areas of interpretation and application.295 Both differ in relation to their scope,296 substantive rules,297 procedural content,298 and dispute resolution procedures.299 Tanzi singles out the main difference between the two conventions as being ‘the way each of them addresses the issue of cooperation’,300 in so far as the UNECE Water Convention requires watercourse states to enter into agreements and establish joint water management institutions (discussed below); as well focusing cooperative efforts for

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290 See: http://www.unece.org/fr/env/water/water_climate_activ.html
291 See: http://www.unece.org/env/teia/jeg.html which also lists other non-binding instruments that the joint expert group has been involved with since its inception.
292 See: http://www.unece.org/env/water/services/serv_1.html
293 See: http://www.unece.org/env/water/services/serv_1.html
294 See: http://www.unece.org/env/water/services/serv_1.html
295 See: http://www.unece.org/index.php?id=12621
296 The UNWC is a framework convention which is globally focused and contains basic principles regarding the use, management and protection of transboundary watercourses. Conversely, the Water Convention is largely a manifestation of regional members’ interests and is more targeted and stringent in the measures it sets out for transboundary watercourses and lakes, especially relating to water quality and ecosystem protection.
297 The most noticeable difference here being their respective engagement with the principle of ‘equitable and reasonable utilisation’. Wouters & Vinogradov, 60, summarise this as ‘The principal provision of the 1997 UN Watercourses Convention is that states are entitled to a reasonable and equitable use of their shared waters—which, under certain circumstances, might permit causing some transboundary impact’ whereas ‘By comparison, the ECE Water Convention contains a cursory reference to the need to ensure that transboundary waters are utilized in an equitable and reasonable way, but does not go beyond that’ For a discussion of the particular differences as well as certain similarities in this regard, see generally, Tanzi, (forthcoming).
298 For a discussion of the particular differences as well as certain similarities in this regard, see generally, Tanzi, (forthcoming).
299 For a discussion of the particular differences as well as certain similarities in this regard, see generally, Tanzi, (forthcoming).
300 Tanzi, (forthcoming), 239
negotiation and implementation on the institutional context of the MoP and its permanent subsidiary bodies, whereas the UNWC only encourages the co-riparians to enter into transboundary water agreements and in-turn establish joint management institutions. Another specific differentiation is their respective inclusion of groundwater resources. The UNECE Water Convention unequivocally includes these resources within its purview via Art 1(1) which defines ‘transboundary waters’ as ‘any surface or groundwaters’ [emphasis added]. This interpretation is supported by both the Guidelines on Monitoring and Assessment of Transboundary Groundwaters and Guide to Implementing the Convention, whereby the Legal Board is currently elaborating ‘a set of model provisions on transboundary groundwaters to guide future negotiations on specific groundwater agreements’. Conversely, under Art 2(a) of the UNWC, only groundwaters connected to surface waters so as to be deemed to constitute a ‘unitary whole’ are considered within the scope of the Convention. Thus, the Conventions clearly differ markedly in both legal scope and practical application regarding the inclusion of groundwater resources with surface waters.

However, this variance on legal requirements for cooperation, as with most of the other legal differences between the Conventions, is not irreconcilable. Indeed, previous comparative studies have determined that there is ‘a basic compatibility’ between the two conventions and that they ‘appear to be complementary to each other’. More recently, Tanzi goes further in positing that both conventions do broadly ‘complement each other’. To this end, Tanzi contends that any substantive or procedural variances between their provisions can be framed within a relationship of interpretation, whereby ‘one norm assists in the interpretation of another ... for example as an application, clarification, updating, or modification of the latter. In such situation, both norms are applied in conjunction’. This relationship of interpretation is said to arise for certain substantive principles such as the rules of no significant harm and equitable and reasonable utilisation. In this instance, Tanzi posits that at first glance the UNECE Water Convention, Arts 2(1)-(2) adopts a more concise and detailed approach to the no harm rule and its relationship to the principle of equitable and reasonable utilisation which could therein appear to hold no significant harm superior to equitable and reasonable utilisation; whereas he argues that Arts 5 to 7 of the UNWC, if taken as a package, effectively ‘place them on an equal footing’. When these two principles are integrated within one normative setting as part of a relationship of interpretation, Tanzi asserts that the UNECE Water Convention’s provisions, along with related guidelines for implementation, are ‘many more, and more detailed, than those set out in the UNWC, giving clearer substance to the general principles at issue’. Moreover, Tanzi highlights that ‘while Article 7 of the UNWC does not expressly provide clues for the identification of ‘all the appropriate measures’ of prevention, the UNECE Water Convention does so’. Hence, using Tanzi’s relationship of interpretation to evaluate the normative aim and context of these provisions, in concert ‘this is one of the many cases in which the latter Convention complements the former; to the overall extent that ‘the two conventions under review complement each other’.

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301 See, Tanzi, (forthcoming). At the same time, Tanzi does point out though that this important difference ‘does not prevent cooperation from being an essential feature of the UNWC’.
302 Tanzi, (forthcoming), 236
303 Tanzi, (forthcoming), 236
304 Wouters & Vinogradov, 60
305 Wouters & Vinogradov, 60
306 Tanzi, (forthcoming), 238
307 Tanzi, (forthcoming), 242
309 Tanzi, (forthcoming), 237
310 Tanzi, (forthcoming), 238
311 Tanzi, (forthcoming), 238
312 Tanzi, (forthcoming), 238
There are many other complementary aspects between the UNECE Water Convention and UNWC. On a general level, the UNWC provides a broader legal framework to support the implementation of shared legal principles and procedures for watercourses shared between ECE and non-ECE member States, and more detailed guidelines and standards for certain aspects of transboundary water resource management, including procedures for prior notification and consent concerning planned measures. Reciprocally, the provisions of UNECE Water Convention are widely recognised as being ‘many more, and more detailed, than those set out in the UNWC, giving clearer substance to the general principles at issue’.

At the regional, basin, sub-basin and national scales, complementary legal aspects between the UNECE Water Convention and other transboundary water agreements have broadly been identified as ranging from: inter-governmental negotiations in formulating basin-wide water policies that are synergistic with regional as well as national laws; to, regional assistance with operational and technical capacity regarding implementation of water laws at the national level. Supporting these legal complementarities, a ‘close normative interface’ exists between the UNECE Water Convention and related regional laws and policies because many reference the same instruments, including corresponding obligations. This greatly assists in the interpretation of legal provisions across multi-sectorial initiatives and thus significantly aids their implementation. The EU Water Framework Directive is one such instrument, whereby its Preamble refers to important obligations within the UNECE Water Convention. Hence, the EU Water Framework Directive was seen as a major development in the effective implementation of the UNECE Water Convention to the extent that both are seen as not only compatible but, very complementary.

From a practical standpoint, the UNECE Water Convention can also offer policy guidance on the implementation of several UNWC provisions. A clear example here is the development of the UNECE Water Convention’s ‘Recommendations of payments for ecosystem services in integrated water resources management’ which have been strategically disseminated to State parties through training workshops and conferences. These recommendations can provide lessons and interpretative guidance for enhancing implementation of the UNWC in relation to Art 20 on the Protection and Preservation of Ecosystem. On a practical level, payment for ecosystem services projects such as that within the Lake Issyk Kul basin in Kyrgyzstan (a designated site of globally significant biodiversity under the Ramsar Convention) could provide invaluable knowledge and experience of applying such recommendations to transboundary water resources. Moreover, this project, like many under the UNECE Water Convention was a collaborative initiative incorporating a range of critical stakeholders, in so far as it was funded by: a national government (Switzerland); a regional inter-governmental body (the European Commission); a global funding organisation (the GEF); and an academic institution (the United Nations University); with responsibility for implementation taken by an independent international non-profit organisation (CAREC – The Regional Environmental Center for East Asia) based in Kazakhstan. Although Lake Issyk Kul is not a transboundary

313 Tanzi, (forthcoming), 240
314 Tanzi, (forthcoming), 237
315 Wouters & Vinogradov, 60
316 Wouters & Vinogradov, 60
317 Wouters & Vinogradov, 59, which lists examples of mutual obligations, including ‘an obligation of co-operation and its more specific requirements such as transboundary notification, joint assessment and monitoring, consultations, exchange of information and technology, and mutual assistance’
318 Wouters & Vinogradov, 59
319 Wouters & Vinogradov, 61
320 See generally, Wouters & Vinogradov, 61
322 See: http://www.unece.org/env/water/ecosystems.html
323 See: http://www.unece.org/env/water/ecosystems.html
324 See: http://www.carecnet.org/about-carec/?lang=en
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In terms of institutional coordination with the UNWC, the UNECE Water Convention has a very small secretariat based in Geneva, Switzerland within the UNECE. It maintains a traditional MEA institutional structure with a secretariat, a MoP (which meets every three years), and subsidiary technical bodies. From a procedural perspective, smaller secretariats tend to be less bureaucratic than larger ones. Reports consistently suggest the Water Convention secretariat has, and continues to enjoy, a supportive and productive relationship with the MoP, member States, and relevant stakeholders. However, due to its small size, this also means that the UNECE Water Convention Secretariat would benefit from additional resources and coordination support. Due to its location, the secretariat and in-turn the MoP have relatively proximate access to many of the key global and European environment and development institutions in and around Geneva which are crucial to its implementation.

As regards collaborating with external institutions, the growing need for cooperation with funding and development institutions to support the UNECE Water Convention’s implementation was originally conceived and codified through the Declaration of The Hague – a policy decision adopted by the MoP which ‘envisages cooperation under the Convention

325 See: http://www.unece.org/env/water/ecosystems.html
326 See: http://www.unece.org/env/water/ecosystems.html
327 See: http://www.unece.org/env/water/ecosystems.html
328 See: http://www.carecnet.org/about-carec/?lang=en
329 According to its website, the Water Convention has nine staff of the UNECE Secretariat servicing the Convention; see www.unece.org/env/water/addresses/addr85.html
330 This conclusion is based on personal communications with past and current Chairs of the MoP to the Water Convention, as well as administrative staff at the Secretariat, and is supported by the positive reviews of the development and recognised achievements of the Water Convention (and its subsidiary instruments) as per general discussion in the previous section.
331 The UNECE Water Convention secretariat is located in the Geneva with the CMS Secretariat whilst the Ramsar Convention is based in Gland, Switzerland. There are also existing collaborations with other Geneva-based organisations on water-related projects, including the World Migration Organisation for climate change adaptation, and the World Health Organisation on water sanitation and hygiene initiatives.
with new partners, such as the Global Water Partnership, the World Bank, and the UN Development Programme (UNDP), and contains an offer of the parties to share their experiences around the world. More recently, these inter-relationships have been further developed by GEF and other funding and development institutions (see discussion in Section 4) through various collaborative pilot projects under the UNECE Water Convention, such as the Lake Issyk Kul outlined above. The UNECE Water Convention is also the focal treaty within the global regime for international watercourses whereby coordination with related laws and policies at all scales is vital. This is precisely the case regarding UN-Water projects, which UNECE take the lead on (with UNESCO) regarding transboundary water issues.

When placed in the context of the GEF statement at the last MoP in Rome in November 2012, such relationships will only continue to be strengthened as State parties to the UNECE Water Convention and project partners seek to develop further pilot projects on emerging transboundary water issues. The success and longevity of the GEF/UNDP/World Bank funded project for managing the water of the Danube River and Black Sea (see discussion in Section 4) demonstrates the importance of establishing and maintaining these relationships to the implementation of the UNECE Water Convention as well as transboundary water agreements more broadly. Hence, these projects which show the most effective way to build relationships with external funding and development bodies would provide an invaluable source of learning from which State parties to the UNWC could benefit from when implementing similar projects upon its entry into force.

To summarise the opportunities and importance of institutional coordination at the global level for when two global Conventions will be in force comes from Rieu-Clarke and Loures who argue that the UNECE Water Convention, with its range of binding and non-binding instruments, ‘has played a… very useful role, and serves to exemplify what the UN Watercourses Convention could offer to the international community globally’. During over 20 years, the UNECE Water Convention, its Protocols, and its subsidiary instruments and the institutional arrangements that have evolved with this regime have collectively come to be widely recognised as an example of a successful and progressive regional regime in the field of transboundary freshwater resource management. Its ‘flexibility, responsiveness, and organic evolution’ are held up as a respected model for regional cooperation and management, in so far as it has ‘developed into a coherent and flexible legal framework capable of quick response to new emerging issues such as the prevention and control of water-related diseases and civil liability for transboundary environmental damage’. Hence, State parties to the UNWC could learn a great deal by effectively coordinating with the UNECE Water Convention to aid its future implementation.

In conclusion, the UNECE Water Convention along with the UNWC will, together, soon form the ‘global dimension’ of transboundary water law. Accordingly, the UNECE Water Convention can offer more specific guidelines for the application and implementation of the

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332 Wouters & Vinogradov, 60
333 Rieu-Clarke & Loures, 33
334 Wouters & Vinogradov, 62 highlight that ‘Given the relatively short life span of the ECE Water Convention, the number of such supporting instruments adopted over the last ten years is impressive. They deal with the entire range of issues that have to be addressed in order to make the ‘water regime’ actually workable’.
335 Wouters & Vinogradov, 62, underscore that the ‘Water Convention regional regime offers many examples of good practice and should be examined more closely internationally’ and ‘from the point of view of regime evolution its progress has been quite remarkable’
336 Wouters & Vinogradov, 62
337 Wouters & Vinogradov, 61; this is supported by Brels et al, 5-6, stating, ‘In creating a consistent and detailed legal framework with high-level standards and stringency for transboundary water management, the UNECE Water Convention has made an important contribution to the codification and progressive development of international law in this field’.
UNWC. With the UNECE Water Convention now soon to be open to accession by States outside the UNECE, it brings regional experiences, work programmes and lessons learned to be shared on a global scale with the UNWC. The fact that the UNECE Legal Board commissioned a report in 2000 into the relationship between the UNECE Water Convention and the UNWC shows clear foresight on behalf of State parties to this originally regional Convention into ascertaining the legal and institutional complementarities between the two instruments, which have been shown above to be mutually reinforcing in many respects. When considered in concert with the adoption of the UNECE Water Convention’s 2003 Amendment, it demonstrates significant legal and institutional foresight as to ‘the deliberate global outreach of this Convention’\(^338\). With this in mind, institutional coordination between these two global transboundary water conventions, whether formal or informal in nature, is absolutely imperative – and for which the key available options will be proposed and analysed in Section 5.

3.4.2.2 SADC Revised Protocol

In Southern Africa, the SADC Revised Protocol entered into force in 2003 thus replacing the original Protocol (of the same name) which entered into force in 1996. The stated purpose of the Revised Protocol is ‘to foster closer cooperation for judicious, sustainable and co-ordinated management, protection and utilisation of shared watercourses and advance the SADC agenda of regional integration and poverty alleviation’\(^339\). It was specifically revised in order to bring certain provisions in-line with the UNWC (adopted in 1997 soon after the original Protocol came into force) and therefore both mirror each other verbatim in many parts of the text.\(^340\) This has important ramifications for compatibility and integration between the UNWC and the Revised Protocol in their implementation. Crucially, of those States that are party to the Revised Protocol, South Africa and Namibia have also ratified the UNWC.

In parallel with the UNECE Water Convention, there are some key substantive and procedural similarities and differences between the Revised Protocol and the UNWC that may assist or limit synergies and linkages and overall coordination between them.\(^341\) Both substantively and procedurally, the Revised Protocol repeats many of the provisions of the UNWC verbatim, but with some important distinctions in scope and/or specificity.\(^342\) Firstly, the Revised Protocol obliges member States to strictly apply the Revised Protocol to future agreements without scope for adjustment, whereas the UNWC states that watercourse agreements may ‘adjust’ the provisions to suit the context where necessary.\(^343\) Hence, it is more stringent in this regard than the UNWC. Secondly, the Revised Protocol stipulates in its dispute resolution procedures that conflicts arising between member States must be submitted to the SADC Tribunal for a binding and final verdict. This in contrast, but not necessarily conflict, to the applicable UNWC procedures allowing for arbitration and, if required, submission to the ICJ ‘unless States have agreed otherwise’ (as could be interpreted by State parties to the Revised Protocol).\(^344\) Nevertheless, as the UNWC clearly allows States to agree otherwise, these dispute resolution procedures may, in practice, not lead to any issues over conflicting jurisdiction with the Revised Protocol.

\(^{338}\) Wouters & Vinogradov, 60

\(^{339}\) Art 2


\(^{341}\) See, Malzbender & Earle, 41-45

\(^{342}\) See generally, Salman, 1006–1022; Malzbender & Earle, 36-51

\(^{343}\) See, Malzbender and Earle, 42-44; Salman, 1013–1015

\(^{344}\) See, Malzbender and Earle, 41, 49-50; Salman, 1019
However, the most potentially controversial divergence between both instruments is one of legal interpretation in so far as the Revised Protocol possibly prioritises the rule of no significant harm over the rule of equitable and reasonable utilisation. It is generally said to constitute the inverse relationship under the UNWC. However, this is by no means a widely recognised contradiction between the two instruments, and in any case, the relationship between the rules of no significant harm and equitable and reasonable utilisation within each separate agreement is a source of on-going academic debate; one that some believe is a moot point. On this point, Salman as well as Malzebender and Earle, argue this issue of legal interpretation may not constitute a contradiction between the instruments depending on how one reads the travaux preparatiores for each agreement and considers that the Revised Protocol was indeed specifically revised with the intention of mirroring the UNWC. All of these nuances however will seemingly remain a moot point until a matter is presented for dispute resolution by State parties to both agreements that tests and discerns a legally binding outcome for these potential interpretative discrepancies.

While the above distinctions would need to be examined in greater detail and potentially resolved prior to seeking to develop certain synergies and inter-linkages, along with the related institutional arrangements, there is substantial scope for substantive and procedural coordination. Fundamental elements exist which would be mutually complementary from the outset in coordinating and implementing both agreements. Firstly, both the SADC Revised Protocol and the UNWC allow for the formation of specific basin agreements and their associated institutions for the purposes of improving governance and effective transboundary water management. Secondly, both the Revised Protocol and UNWC encourage harmonisation of existing/new basin agreements with their respective principles and substantive rules which could aid regional coordination with non-SADC member States, providing greater legal clarity and improving regionally integrated water management. Lastly, as stated above, the Revised Protocol and the UNWC set out separate dispute resolution provisions that together can be seen as mutually supportive in a regional context. In this regard, upon the UNWC’s entry into force, the Revised Protocol would be used for SADC member States and the UNWC provisions could potentially be used for disputes between SADC and non-SADC nations, depending if either State was a party to the UNWC. On this basis, there appears to be significant legal scope for utilising the Revised Protocol’s substantive and procedural inter-linkages and synergies with the UNWC within a global institutional framework for effective implementation of international watercourse laws.

Institutionally, the secretariat for the SADC Revised Protocol is relatively small and sits structurally within the overall SADC secretariat, located in Gaberone, Botswana. From a procedural and substantive standpoint, the implementation of the SADC Revised Protocol is coordinated by the SADC Water Division, established in 2005 under the Directorate of Infrastructure and Services, which has been mandated as its ‘custodian’ by the SADC Secretariat. Hence, the Revised Protocol has a less traditional institutional structure to most MEAs and regional conventions whereby the SADC ‘Secretariat (through the Water Division) is responsible for promoting and monitoring the implementation of the (Revised) Protocol, which is the framework under which SWCIs [Shared Watercourse Institutions] operate’.

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345 See, Malzbeder and Earle, 38-40; Salman, 1007–1010
346 See, Malzbeder & Earle, 43-44; Salman, 1012-1015, 1018
347 See, Malzbeder & Earle, 49; Salman, 1021–1022
348 See, Malzbeder & Earle, 50-51; Salman, 1021–1022
349 See, Malzbeder & Earle, 49-50
352 Wouters & Vinogradov, 57
Conversely, the Water Division of the SADC Secretariat ‘is primarily responsible for promoting, coordinating and monitoring the implementation of the Revised Protocol on Shared Watercourses, as well as encouraging and guiding regional harmonisation of national policy and legislation’\textsuperscript{353}. It follows ‘a programmatic approach to implementing the Regional Water Policy and Strategy, based on water sector priorities and linkages to other SADC sectors such as health, energy, agriculture and tourism’\textsuperscript{354}. Hence, embedded within the SADC Secretariat, the Water Division is seemingly well-placed strategically to exploit linkages and synergies in implementing not only the SADC Revised Protocol but other regional laws.\textsuperscript{355} In practice though, the SADC is traditionally quite bureaucratic and generally tends to operate in ‘silos’\textsuperscript{356} rather than across sectors which can hamper any integrated approaches to implementation, monitoring and enforcement of regional water laws and watercourse agreements.\textsuperscript{357}

3.4.3 Basin and Sub-basin Watercourse Agreements and Institutions

The legal architecture for transboundary waters at the basin and sub-basin level varies quite significantly between regions. Before examining individual regions, it is worth noting that the rate in which basin and sub-basin agreements have been adopted has significantly slowed over the last decade or so. Around the time of the Earth Summit at Rio in 1992, the number of agreements being adopted each year was around 14 per year.\textsuperscript{358} However, this rate has slowly declined since then. For instance, in all of 2005, 2006 and 2007 only one agreement is identified in the Transboundary Freshwater Dispute Database.\textsuperscript{359}

Such a slow rate of adoption can be contrasted by the number of basins that still lack cooperative arrangements. For example, throughout Africa there are 59 transboundary river basins, which make up 62 percent of the continent’s land surface.\textsuperscript{360} Of these transboundary river basins, 16 are covered by basin-wide agreements, three are partially covered by agreements and 40 have no basin-specific agreements in place.\textsuperscript{361} Additionally, Angola, Botswana, Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South


\textsuperscript{356} Silos in this context refer to the practice of developing initiatives which are institutionally isolated from other parts of an organisation irrespective of whether those parts of the institution may be related to, or beneficial for, an integrated cross-sectorial approach to designing, implementing, monitoring and evaluating the project/programme.


\textsuperscript{358} See: http://www.transboundarywaters.orst.edu/database/

\textsuperscript{359} Id.


\textsuperscript{361} UNEP et al, Atlas of International Freshwater Agreements, at 27-50.
Africa, Swaziland, Tanzania, Zambia and Zimbabwe have ratified the Revised SADC Protocol (as discussed above).

Throughout Asia there are 57 transboundary river basins, which account for 39 percent of the continent’s land surface. 362 10 river basins, constituting 3,270,600 km² of the land mass, are covered by basin wide agreements. 363 15 river basins, representing 12,584,400 km², are partially covered by basin agreements, and 32 river basins representing 1,933,060 km² are not covered by any basin agreement.

Across Europe there are 64 transboundary river basins covering 54 percent of the continent’s land surface. 364 35 rivers are covered by basin-wide agreements, whereas 10 are partially covered, and 19 have no basin-specific agreements in place. 365 However, most European states are also obligated to implement two relatively stringent regional agreements, namely the EU Water Framework Directive and the 1992 UN ECE Convention (as discussed above). 366

In North America, there are 41 transboundary river basins that cover 35 percent of the continent’s land surface. 367 There are 28 basin-wide agreements, and a further 4 river basins are partially covered by agreements. 368 Only 9 river basins have no basin-specific agreements in place, representing 76,000 km². 369 Last but not least, South America is home to 38 transboundary river basins, which make up 60 percent of the continent’s land surface. 370 Of these river basins, 23 are covered by basin-wide agreements, whereas 15 basins are not subject to any basin agreements. 371

The above analysis demonstrates that transboundary waters are a significant percentage of the overall water resources in most regions, but the current basin and sub-basin legal architecture is fragmented. The need to address such fragmentation was supported in the findings of a range of regional and basin assessments, which were conducted as part of the UN Watercourses Convention Global Initiative. 372 These regional and basin assessments conducted a comparative analysis of the existing legal architecture for transboundary waters in a number of regions and basins, and the text of the UN Watercourses Convention. The assessments covered Central America, Central Asia, Congo, East Africa, Europe, the Indus, South America, Southern Africa, West Africa, South-east Asia. 373 While the assessments support the fragmentation noted above, they also attest to the complementary nature of the UNWC. In West Africa, for example, a key finding was that the UNWC was not in conflict with the text of existing agreements, but could supplement those instruments in areas such as

362 Wolf, 399-403
363 UNEP et al, 51-76
364 Wolf, 404-408
365 UNEP et al, 77-132
367 Wolf, 408-410
368 UNEP et al, 133-162
369 Wolf, 410-416
370 Ibid.
371 UNEP et al, 163-170
372 See: http://wwf.panda.org/what_we_do/how_we_work/policy/conventions/water_conventions/un_watercourses_convention/
equitable and reasonable use, notification and third party fact-finding. Similarly, the European assessment concluded that the existing legal architecture for transboundary waters in Europe was more stringent than the UNWC, but a number of States still ratified this global framework instrument in order to support their foreign and development policies.

3.4.3.1 Basin and Watercourse-Specific Coordinating Institutions

Transboundary basin and sub-basin institutions represent the most fundamental institutional component of the international architecture for managing transboundary surface and groundwater resources. Not only are they widely recognised as the key institutional platforms via which most transboundary freshwater initiatives are collectively planned, negotiated, overseen, and sometimes implemented, but certain regional agreements go so far as to call for their establishment to assist in the effective joint management of international water resources. The formation of the Orange-Senqu, and Limpopo, River Commissions (ORASECOM and LIMCOM respectively) under the jurisdiction of the SADC Revised Protocol are significant examples. However, as highlighted by WWF and DFID, ‘The institutional arrangements and capacity at a national (and sub-national) level is probably the key determinant of effective transboundary management’. Nonetheless, these basin and watercourse institutions are pivotal elements in relation to the overall design of a global water institution for the coordination and implementation of international watercourse agreements.

Due to their inherently contextual nature, transboundary basin and sub-basin joint institutions generally vary widely in formation, membership, evolution, mandates, functions, and performance. Rather than analysing an exhaustive or perfunctory list in order to describe and analyse the major similarities and differences between these institutions, it is much more instructive for this study to group them on the basis of their key characteristics. In this regard, Rieu-Clarke and Pegrum have discerned four discrete yet not mutually exclusive categories of transboundary basin and watercourse institutions: ‘water (basin) infrastructure authorities’; ‘bilateral issue based bodies’; ‘multi-lateral basin committees’; and,

376 Art 3 of the SADC Revised Protocol calls for the ‘Establishment of river basin management institutions for shared watercourse systems in the SADC region’. Arts 4-6 set out the objectives, functions, financial and regulatory framework for these institutions.
377 See, Malzbender and Earle, 31-32
378 WWF & DFID, 13
379 There are many examples of individual studies focusing on basin-specific institutional arrangements in different regions around the world which demonstrate the variability of those and other elements between and amongst these types of institutions, such as: the Orange-Sequ River Basin in Southern Africa (see generally, Heyns, Patrick & Turton, 2008; SADC, 2009); the Mekong River Basin in South East Asia (see generally, Jacobs, 2002; Backer, 2007); and the Danube River Basin in Europe (see generally, Linnertooth-Bayer & Murcott, 1996; Gerlack, 2004).
380 One such study ‘in-depth study of 12 international river basins which developed elaborate institutions for the management of their transboundary water resource’ is, Kliot, N., Shmueli, D., Shamir, U., ‘Institutions for management of transboundary water resources: their nature, characteristics and shortcomings’ (2001) 3 Water Policy, 229-255.
381 WWF & DFID,13, which defines them as ‘responsible for the development, financing and/or operation of joint water resources infrastructure between two or more countries, typically established under treaty between the parties’
382 WWF & DFID,13, which defines them as ‘created by agreement (or MoU) between two countries to engage a water issue of common concern, such as water sharing, infrastructure planning, aquifer management, hydropower, water quality and/or flooding’
‘multi-lateral basin organisations’. Whilst differing widely in their exact forms and functions, these distinct types of institutions, together and separately, constitute the critical ‘top-down’ and ‘bottom-up’ pivot-points in the establishment of a global water institution for the implementation of the UNWC as well as regional, watercourse-specific and national water laws.

At the same time, basin (and sub-regional) organisation support for the UNWC’s entry into force, which would strengthen the role of basin organisations within a multi-level governance framework, has been demonstrated by a number of international decisions, such as the Bangkok Declaration. Other international decisions and declarations from basin, sub-regional and regional organisations expressing similar support for the UNWC include: 2007 Call for Action on the Ratification of the UN Watercourses Convention by West African States (Dakar, Senegal); and the UN Secretary-General, before the 2007, 2008, 2009, 2010 and 2011 United Nations Treaty Events; 2008 Antigua Declaration on the 1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses; 2010 OSU Declaration, Interim Guinea Current Commission, during the 2nd Meeting of the Committee of West and Central African Ministers of the Guinea Current Large Marine Ecosystem Project; 2011 Bamako Declaration, during the Solidarity for Water in Niger Basin Countries forum; 2011 Declaration of the UN DPI/NGO Conference, with the purpose of informing the Rio +20 preparatory process; Convention on Biological Diversity, Decisions VIII/27 and IX/19; and, UNSGAB’s Hashimoto Action Plans I and II; and the 2009 Bangkok Plan of Action for Strengthened Transboundary Freshwater Governance. Hence, it is clear from the number of international statements and legal documents expressing support for the UNWC that there is increasing recognition at the basin and sub-regional level of the potential benefits an over-arching global legal framework could have for transboundary water resources.

Finally, it is insightful to highlight some key common limitations and perceived bases for success of basin and watercourse institutions within the aforementioned categories in so far as it will influence the design of the global institutional architecture. The Mekong River Commission (MRC), which predominantly falls within the description of ‘multi-lateral basin committees’ and forms the principal inter-governmental platform for management of the Mekong River Basin, is broadly credited for providing a ‘forum for cooperative, international discussions on an issue of common interest when tensions were running high’ between

383 WWF & DFID, 13, which defines them as ‘created by an agreement (or MoU) to advise the parties on a range of transboundary water management issues and priorities, including the development of a basin agreement/plan concerning the allocation of water, transboundary objectives and institutions to be established to foster cooperation in the basin’.

384 WWF & DFID, 13, which defines them as ‘established with a permanent secretariat by transboundary agreement, in order to advise the parties on water resources related issues of common concern at a transboundary level’.

385 Top-down here refers to the role global and regional watercourse instruments and institutions play at the basin level in various ways, such as promoting substantive and procedural laws and policies as well as coordinating global, regional, and basin level organisations.

386 Bottom-up here refers to the role that local, national and watercourse/basin experiences play at the basin level in various ways, such as influencing the negotiations for, and establishment of, transboundary agreements and institutions, as well as the formulation and on-going assessment of transboundary plans and programmes of work and joint international projects, including infrastructure projects.


388 Jacobs, ‘The Mekong River Commission: Transboundary Water Resources Planning and Regional Security’, 168(4) The Geographical Journal 354 (2002), at 363; see also Kliot et al, at 252, where it points out that as regards institutions such as the MRC, in terms of patterns or models of cooperation, ‘the many institutions which govern the management of transboundary water resources point to the fact
riparian States. Hence, such transboundary institutions can be ‘a good example of what good basin management can do in the context of international co-operation, even in an initial environment of conflict and distrust’ and how this can consequently ‘play a role in contributing to international cooperation and to broader notions of regional security’. Yet, the MRC is widely recognised as ‘not perfect’ with an often stressed critical limitation to its success being the lack of membership from all riparian States, and weak legal mandate. This is a significant and all too common problem for basin and watercourse transboundary institutions, which only further heightens the need for a global water institution.

The Senegal River Basin Authority (Organisation pour La Mise en valeur de Fleuve Senegal or OMVS), as the inter-governmental institution mandated with the joint-management of the Senegal River Basin, would be broadly classified as both a multi-lateral basin organisation and a water (basin) infrastructure authority. It differs from institutions such as the MRC in that, crucially, it enjoys membership by all of the basin riparian States, and that unlike the MRC, based on the mandate provided by its Convention, ‘OMVS not only plans and formulates policies but also implements them’. In this respect, OMVS is generally held up as a comparatively successful institution in its role ‘as a multipurpose organization with a comprehensive development policy which it has actually realized’. Yet, common to the relative successes of institutions such as the MRC and OMVS is the important role external organisations and agencies have played in providing the necessary resources for implementation.

With the expansion of different types of watercourse and basin-specific institutional arrangements, the need to improve coordination and harness institutional learning between similar organisations at the transboundary scale has been identified. To this end, formal linkages such as the International Network of Basin Organisations (INBO) have become

that in many river basins countries are able to overcome their differences and cooperate to the benefit of all’.

390 Jacobs, 363; see also, Kliot et al, at 252, supporting this conclusion by stating ‘it should be remembered that institutions, preferably, basin-wide integrated development institutions, may prevent eventually acute conflicts as they regulate behavior in shared river basins’.
391 Jacobs, 363, citing, Millington, 26.
392 China and Burma are not parties to the Mekong Agreement (Laos, Thailand, Cambodia and Vietnam are), which exacerbates problems of cooperation and planning as they are both upstream States. China especially, as the most important nation in terms of its planned infrastructure developments, particularly hydropower schemes, is a critical absentee from the MRC. As Kliot et al, at 252, aptly point out, ‘Institutions in which only a few of the riparians are involved (Mekong… for example) may become useless in the future when non-member riparians demand their share in the common pool’.
393 Since 1963 the Senegal has been managed by the OMVS in which Guinea, Mali, Mauritania and Senegal are members (Godana, 1985; OMVS, 1988).
394 Kliot et al, at 250; as highlighted in WWF & DFID at 12, regarding the role of these different types of basin/watercourse institutions, ‘It is important to distinguish those bodies that are established for a specific clearly defined purpose (such as developing and implementing a water agreement) from those bodies that are established to foster cooperation. Similarly it is important to distinguish those that perform specific assigned functions (such as operating joint infrastructure) from those that are advisory in nature (and have no inherent management functions)’.
395 Kliot et al, at 250, state that ‘The functions of the OMVS are navigation, promotion of irrigation and hydropower production and the authority to construct and operate joint projects (which it did)’.
396 In this regard, for OMVS, Kliot et al, 249-250, identify ‘Its greatest success lay in its mobilization of $700 million from the donors for its various projects’, whereby ‘OMVS was initiated and funded by 14 different donors - Arab Bank, African Development Fund, USAID, EEC, UNDP, the World Bank and others. These agencies provided the technical aid and funding that secured the success of that organization (Le Marquand, 1986; Ibrahim, 1988). The influence of these foreign agencies is similar to the impact of such agencies in the development of the… Mekong Committee’.
crucial systems for sharing information, experiences and expertise between basin organisations that might otherwise only interact at the regional level. With objectives such as: the development of permanent relations between basin/river organisations; promoting recognised principles and policies for cooperative transboundary water management; facilitating joint evaluation of current integrated water resource management practices and dissemination of results; and the development of training programmes and toolkits for practitioners, organisations such as INBO occupy a vital niche in the coordination of the institutional aspects of watercourse agreements.397

3.5 CONCLUSION

Upon its entry into force, the UNWC will be but one global legal instrument within a vast and complex international law regime. Under the general banner of international environmental governance, considerable efforts have been put into advancing inter-linkages, synergies and coordination within and between MEAs. The implication of these efforts are twofold: firstly, existing practice in coordinating MEAs provides important insights into how watercourse agreements at different scales can be better coordinated; and secondly, such efforts suggest ways in which watercourse arrangements can be coordinated with other MEAs, e.g. climate change, wetlands and biodiversity. Therefore,

3.5.1 Synergies and inter-linkages between the UNWC and related agreements

How can synergies and inter-linkages between the UNWC and related agreements be fostered? In developing inter-linkages, synergies and coordination between the UNWC and MEAs, based on the analysis above we suggest four key insights should be considered, namely:

- **MEAs cross sectors and multiple governance levels in their application**, and hence do not function in isolation despite being specialised legal instruments focusing on specific environmental challenges;

- **Inter-linkages within and between MEAs can enhance the effectiveness of one or more MEAs** by identifying and integrating the substantive and institutional ‘compatibilities’ of treaty form and function;

- **Fostering synergies between MEAs can improve their problem-solving capacity** as scientific and technical ‘complementarities’ which are incorporated via negotiation in the policy-making process; and,

- **Increased coordination amongst MEAs can lead to more mutually efficient MEA implementation** by utilising both ‘top-down and ‘bottom-up’ approaches as required and relevant to the particular regime(s), with the overall aim of avoiding duplication and inconsistencies, and maximising resources.

The implication of these insights are twofold: firstly, existing practice in coordinating MEAs provides important guidance into how watercourse agreements at different scales can be better coordinated; and secondly, such efforts suggest ways in which watercourse arrangements can be coordinated with other MEAs, e.g. climate change, wetlands and biodiversity. UNEP, in conjunction with a range of UN and non-UN agencies, currently conducts – individually and jointly - a range of initiatives and activities aimed at developing or improving inter-linkages, synergies and coordination for MEAs, particularly those for which it is the coordinating institution. Such coordination efforts provide crucial experience

in how implementation of the UNWC might be supported and how this could enhance mutually reinforcing implementation of other transboundary water agreements, especially the UNECE Water Convention at the global and regional levels, as well water-related MEAs.

3.5.2 Existing legal instruments supporting implementation of the UNWC

To what extent do existing legal instruments support implementation of the UNWC? While it was noted above that many of the existing efforts in coordinating MEAs provide important insights into how watercourse agreements at different scales can be better coordinated, this begs the question how does the existing architecture support transboundary watercourse management. An analysis of the existing architecture leads to the following key insights:

- **There are clear linkages between the UNWC and existing MEAs operating at the global level, including Biodiversity Convention, Climate Change Convention and Desertification Convention.** Strong implementation of the UNWC can therefore help strengthen key aspects of these global MEAs with regard to transboundary cooperation, and vice versa.

- **There are clear linkages between the UNWC and the 2008 ILC Draft Articles on Transboundary Aquifers.** While the Draft Articles focus exclusively on aquifers that cross national borders, the UNWC covers aquifers that are connected to surface waters. However, the latter instrument does not cover confined aquifers. There is therefore some overlap in the scope of both instruments, and it will be important that both instruments are implemented in a coordinated manner.

- **A strong interface exists between the UNWC and the UNECE Water Convention.** While the UNECE Water Convention is more detailed in both content and the institutional mechanisms to support its implementation, the UNWC has important supplementary provisions, e.g. planned measures on notification and consultation. Additionally, the UNWC was negotiated and adopted by a broader range of states. Given their complementary nature it will be important to ensure that synergies and inter-linkages between these two instruments are exploited once both are in force at a global level, especially given the UNECE’s 20 years of experience in supporting implementation of transboundary water arrangements at a regional, basin, sub-basin, national and local level.

- **The existing architecture for transboundary water management is highly fragmented.** While a significant number of regional (SADC Revised Protocol and UNECE Water Convention), and basin-specific agreements exist, many transboundary waters lack any basin-specific agreement. Moreover, where basin agreements are in place not all the basin states are party to them, or they do not embody modern rules and principles of international law. There is therefore an important role that a global regime for transboundary waters can play in addressing fragmentation and ensuring harmonisation of the existing legal architecture across levels (global, regional, basin, national and local).

Based on the above points, it would seem necessary and indeed practical to have a legally mandated institution at the global level to ensure the over-arching coordination of the vast and complex array of institutional agreements for managing transboundary waters at all scales. An institution for global governance of transboundary water resources is required for two main reasons. One is predictability, whereby States can commit to the rules and principles contained in the legal document, and work towards their implementation and improvement. Secondly, it would ensure that transboundary water issues/ institutions having a strong ‘voice’ at the global level. A legal agreement such as the UNWC would thus help strengthen the legitimacy of an institution charged with representing transboundary
institutions at a national, transboundary, regional level, as well as government and non-governmental organisations. Consequently, when it comes to negotiating transboundary water aspects of global legal statements, such as Rio+20, this legally mandated institution could have a stronger influence.

On a global scale, fundamental elements exist for the establishment of a global transboundary water resources institution, particularly focusing on watercourses, to support inter-linkages, synergies and coordination. This institution could be built around global framework agreements such as the UNWC and/or the UNECE Water Convention given that it is highly likely that both will be effectively operating as global conventions in the next 12 to 24 months, as well as the ILC Draft Articles on Transboundary Aquifers depending on the outcome of the UN GA in September 2013 to decide the final form these will take. At the regional level, it is clear that both the UNECE Water Convention (as it still has clear regional context) and the SADC Revised Protocol Secretariats will undoubtedly have important roles to play in developing vertical inter-linkages and synergies with the UNWC at the global level, as well as between watercourse laws and policies at all levels below within the global institutional architecture for international watercourses. Just how significant the respective or joint roles these global and regional instruments will take in shaping any global institution for transboundary water is a crucial topic for discussion and the current subject of much debate.398

Coordination of basin and sub-basin institutions for the purposes of sharing information, experiences and expertise is also now recognised as a very important component of the international architecture and has improved accordingly. Where previously, coordination below a regional scale hardly existed, now it can be seen that advocacy, capacity-building and training networks such as the INBO and GWP play a pivotal role at the global level in facilitating shared learning as well as joint planning and implementation of IWRM between transboundary water stakeholders.399 Whatever form it takes, any global watercourse institution should be able to draw upon potential synergies to support the role these vital platforms for coordination play in strengthening the governance of transboundary freshwater resources and, in-turn, improve the coordination of synergies and linkages between the UNWC, regional/basin watercourse agreements, national water laws and other MEAs.

398 The nature of the UNECE Water Convention and its Secretariat in relation to the UNWC and plans for its institutional design and establishment of a secretariat was one of the central topics of conversation and debate at the recent event in Helsinki, Finland in September 2012 to celebrate the 20th Anniversary of the Water Convention. Several nations have also put forward proposals to host the UNWC secretariat upon its entry into force.

399 Previous examples of basin organisation coordination beyond a regional scale traditionally took the form of ‘twinning’ arrangements whereby national level water authorities would identify a basin organisation somewhere that mirrored the circumstances/context of the one in question, but where they could learn from the advanced/different practices of the other nation.
4. WHICH INSTITUTIONS SUPPORT THE IMPLEMENTATION OF GLOBAL LEGAL INSTRUMENTS?

4.1 INTRODUCTION

We have already discussed the integral role that the autonomous institutions of MEAs, with their secretariats and MoPs/CoPs, have in the overall effectiveness of MEAs, as well as the much debated role of UNEP in coordinating MEAs. Yet, general international institutions relevant to transboundary waters, as well as those that are basin specific, will undoubtedly also play a vital role in the implementation of the UNWC, related MEAs, as well as national laws and policies, at all scales. No investigation of the global institutional architecture for the UNWC would therefore be complete without a thorough examination of existing relevant international institutions that have some mandate to work in fields related to transboundary waters.

The following section therefore identifies important and established global, international, regional and transboundary institutions that would be relevant in the establishment, coordination and daily functioning of a global institutional framework for implementing the UNWC.

4.2 MAPPING THE EXISTING INSTITUTIONAL ARCHITECTURE: ROLES AND FUNCTIONS

4.2.1 Funding and Development Institutions

A complex and inter-connected system of related institutions and specialised agencies has subsequently developed within and outside of the UN system that are involved in the sustainable development agenda around transboundary freshwater resources. Development-focused institutions, such as the UN Development Programme (UNDP), play a role, as well as funding bodies such as the Global Environmental Facility (GEF). Administered through UNEP, the UNDP, and the World Bank, the GEF will be crucial to supporting the UNWC via regional, bilateral and national level implementation projects. This already occurs for example under the UNECE Water Convention in relation to the Guidance on Water and Adaptation to Climate Change, as one of several joint initiatives between the Convention and GEF, which are only going to expand further based on a GEF.

GEF funding for transboundary freshwater projects also includes support to legal and institutional mechanisms via the GEF International Waters (IW) Focal area which ‘has been supporting and catalyzing a number of institutional and legal frameworks as well as methods and toolsleading to strong regional organizations, as one of its key efforts. Such organizations include the Orange-Senqu River Commission (ORASECOM), International Commission for Protection of Danube River (ICPDR), Mekong River Commission (MRC), lake Victoria Basin Commission (LVBC) and Lake Victoria Fisheries Organization (LVFO) within the Freshwater sphere.’ Hence, the GEF should play a critical role in the institutional architecture for transboundary freshwater resources, hopefully by supporting joint programmes and projects between the global transboundary freshwater agreements - the UNECE Water Convention and the UNWC.

400 Andresen, 2. The Commission on Sustainable Development (CSD) is one such example.
401 Roch & Perrez, 9
Hence, the existing institutional funding relationships in relation to transboundary freshwater resources must be integrated as a pivotal component of the global institutional architecture in so far as the GEF already has strong ties to projects for water-related MEAs, such as the CBD. Drawing on the experiences of the Environmental Management Group, which assists coordination between these funding and implementation bodies, the effectiveness of the UNWC will be enhanced by reinforcing ‘the MEA effect of efficient and coordinated action among its partner agencies’, as concerns funding for implementation of infrastructure, governance and management initiatives of the UNWC and related MEAs, regional and national laws.

The UNDP ‘is the lead agency in the UN system for capacity building for sustainable development at local, national and regional levels,’ and ‘a large part of UNDP is already decentralised’. In relation to transboundary water resources, the UNDP is currently engaged in work on the sub-topic of ‘Transboundary Waters’ under the ‘Water and Ocean Governance’ Programme. Importantly, many of the ‘Transboundary Waters’ projects and programmes are conducted in collaboration with other key institutions such as the GEF. One longstanding example of this has been the joint project for managing the Danube River Basin (which flows through Eastern Europe and empties into the Black Sea) and the Black Sea. Beginning in 1991, with direct support from the GEF and UNDP, as well as other institutions including the World Bank and UNEP, riparian countries along the Danube each identified their transboundary pollution problems and collectively agreed to environmental programmes. These programmes led to measurable improvements in water quality for the Danube River and resulted in the general stabilising of nutrient levels, and in-turn improvements in fish

403 Briceno, 5, states that GEF is ‘designated to operate the mechanisms to provide financial resources to enable the implementation of the three Rio Conventions’. See also, Andresen & Skjaerseth, 17; Rosendal and Andresen, 9, also highlight specific work related to the UNWC in terms of synergies and linkages with other MEAs, such as ‘Under UNEP/GEF enabling activities, the UNEP GEF Coordination Office assists 28 countries in preparing biodiversity action plans and national reports and in accessing the CBD clearing-house mechanism; and 118 countries in preparing national biosafety frameworks’, and, ‘GEF has operational programmes in biodiversity (following the ecosystem approach in forest, mountain, arid, semi-arid and wetland ecosystems), climate change, international waters, persistent toxic substances and the ozone layer’.

404 Kanie, 77 which states that the ‘The EMG was formed to assist in the coordination of activities between UNEP, UNDP and other UN agencies, Funds and Programmes and MEA secretariats’.

405 Steiner et al, 230, ‘It serves an additional integrating function insofar as its projects realize goals pursuant to more than one convention (Werksman, 1995; GEF, 2002a); and Andresen & Skjaerseth, 17, ‘in the same manner as with other IEAs linked to the UN system, the financial system is linked to various parts of the UN system’.

406 Iwama, 85


408 For more information, see specifically:

409 For more information, see specifically:
http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/focus_areas/water_and_ocean_governance.html

410 According to the UNDP website, ‘The UNDP/GEF Danube Regional Project was implemented by UNDP and involved the International Commission for the Protection of the Danube River. The UNDP/GEF Black Sea Ecosystem Recovery Project was developed under the GEF and involved UNDP, the UN Environment Programme and the UN Office for Project Services. The World Bank/GEF Investment Fund for Nutrient Reduction was an investment fund created by the World Bank to provide GEF grant support to leverage World Bank financing for nutrient reduction investments.’ See specifically:
http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/projects_and_initiatives/managing_the_blackseaandthedanuberiverbasin/
stock, in the Black Sea. In this respect, consolidation of transboundary freshwater projects between UNEP and the UNDP and World Bank development initiatives and consultative groups can be ‘used as vehicles for regular national planning and review’ and ‘enable the regional and country level delivery that is currently deficient’. Along with the increasing financial involvement of regional funding bodies such as the Asian, and African, Development Banks, especially concerning infrastructure projects, a global water institution must seek to coordinate links between these key global and regional funding institutions in order to buttress State-funded initiatives.

The complex and persistent issue of global and regional funding bodies financially supporting the development of large-scale, national or bilateral hydropower projects is one extremely sensitive matter that must be carefully considered in the global architecture. Establishing clear and open lines of communication between a global institution for international watercourses and those key stakeholders involved in such projects, including inter-governmental regulatory agencies such as the World Commission on Dams, will be critical in attempting to achieve outcomes that support the principles of international water law, especially equitable and reasonable utilisation and no significant harm. Hence, a global institution for international watercourses must seek to establish linkages with these types of institutions in order to self-empower riparian States sharing freshwater resources so that they can ‘fund, promote and guide transboundary initiatives and infrastructure, due to the capital and capacity constraints on many countries’, yet do so in a way that does not undermine the established principles and objectives of international water law. The advantage of having the UNWC in force therefore is that it would provide a legally mandated agreement upon which a global institutional

4.2.2 Technical support and awareness-raising

Existing institutions play a vital role in policy development, technical support and the awareness-raising in respect of international water laws and policies. At the global level, institutions such as UN Educational, Scientific and Cultural Organization (UNESCO) through their International Hydrological Programme (IHP) play a central role in framing debates and raising awareness concerning the latest developments and practices across all facets of water use and management. UN-Water, as the official UN mechanism established in 2003 to promote coherence and coordination in water initiatives across all 26 of the UN agencies, programs and funds dealing with water issues, as well as improving links with external stakeholders, is pivotal in this regard. Other significant institutions operating at this scale across a global range of issues, stakeholders, and geographical foci include: the Global Water

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411 Iwama, 85. The significance of UNDP’s combined role with these institutions in MEA implementation is further emphasised by Rosendal & Andresen, 9, where it states that this is an ‘important relationship… that of the UNDP (and the World Bank) through their collaboration with UNEP in administering the GEF’.

412 Mee, 256. Here, Mee points out that there are some highly pragmatic reasons for better coordination between UNEP and UNDP in their programming and implementation of MEAs, in that it would: ‘making optimal use of UNEP’s regional and non-sectoral country office structure… Widen access to UNEP’s information services… Build on the twin political mandates of the organisations… and, reinforce coordination between MEAs and help them by facilitating reliable information on one hand, and improved access too stakeholders on the other.’

413 As noted by Rieu-Clarke & Pegram, 72, ‘While such activities are commonly also part of the responsibility of national governments, resource limitations and existing legal constraints on basin organizations require most financing from global and regional institutions’

414 WWF and DFID, 13

415 WWF and DFID, 13

416 See, Brels at al, 16, where it also describes these additional functions in so far as ‘UN-Water also works to improve links with external partners, assesses and reports on the state of the world’s water systems, and oversees the implementation of the water- and sanitation-related targets’.

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Partnership (GWP); the International Network of Basin Organizations (INBO); and, the World Bank and its coordinating partners (such as UNDP and GEF).

Global events which bring together key water stakeholders from around the world are also critical platforms for promoting and facilitating discussions on technical, policy and legal developments given the cross-sectoral nature of transboundary water management. Stockholm International Water Institute (SIWI) annually hosts the World Water Week in Sweden, which ‘has been the annual focal point for the globe's water issues since 1991’, and carries a different thematic focus each year. Additionally, the World Water Council has convened the World Water Forum every three years since the inaugural event held in Marrakech, Morocco in 1997. As the ‘largest international event in the field of water’, it is framed as ‘one week of discussions, hot debates, solutions and best practice sharing in order to achieve concrete solutions and commitments for the cause of water’. As an indication, the most recent 6th event in Marseille, France in June 2012 brought together more than 35,000 participants from 125 nations, ranging from 15 heads of State to 3,500 representatives from NGOs and civil society.

Established institutions with a regional focus or foci can play an even more important role in this regard due primarily to their enhanced contextual geographic expertise and legitimacy which is necessary to ‘enable greater buy-in to global mechanisms, increase compliance and have greater emphasis on the South’. Regional economic development bodies such as the UN Economic and Social Commission for Asia and the Pacific, the Economic Community of West African States, SADC, and UNECE are integral regional mechanisms in the broader sustainable development framework for transboundary water management.

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417 See, www.gwp.org/en/About-GWP/Partners/ where it states that GWP is a ‘global action network’ of organisations from around the world ‘involved with issues related to the sustainable development, management and use of water resources’. Partners are then organised into country and regional water partnerships for IWRM projects, overseen by a global secretariat. Hence, GWP’s ‘chief focus is to support social change processes that further the sustainable management and development of water resources’.

418 See, www.inbo-news.org/inbo/organization/article/charter-of-organization-and where it explains that the INBO is open to ‘the organizations managing large national or federal, or even transfrontier river basins and the cooperation structures they have developed among them’, as well as ‘the governmental administration in charge of water management in the countries applying or being interested in applying integrated water management’. In terms of mandate, the INBO, ‘is a flexible structure relying on the members’ willingness to work together’, but ‘has no legal statute, nor a status of international organization, it is simply governed by this CHARTER OF ORGANIZATION AND OPERATION’.

419 There are similar types of global events which focus specifically on transboundary water management. For example, UNEP organised the first global forum for transboundary river basin organisations in October, 2011 (which was postponed due to flooding in the host city, Bangkok, Thailand).

420 See, www.worldwaterweek.org/about.

421 See, www.worldwaterweek.org/strategy where it states that the event ‘provides a unique forum for the exchange of views, experiences and practices between the scientific, business, policy and civic communities’, and, ‘the perspective is global, but the context is attuned to differences and similarities between regions of the world, phases of development, political systems and climatic conditions’.

422 As outlined on the World Water Council’s website, the four main purposes of the World Water Forum are: ‘To raise the importance of water on the political agenda; To support the deepening of discussions towards the solution of international water issues in the 21st century; To formulate concrete proposals and bring their importance to the world’s attention; To generate political commitment’. See generally, www.worldwatercouncil.org/index.php?id=6

423 Of governments and European Commissioners; see generally: www.worldwaterforum6.org/en/the-forum/about/

424 See: www.worldwaterforum6.org/en/the-forum/about/

425 Mee, 256

426 WWF and DFID, 39.
has been posited as particularly successful in this respect, as evinced by the earlier discussion of administering projects and programmes for the joint implementation of the UNECE Water Convention and other MEAs.\textsuperscript{427}

Mee points out that in designing the UNWC’s global institutional framework, ‘the establishment of regional mechanisms (or adaptation of existing ones) should be an important feature of the new institutional architecture’\textsuperscript{428}. Regional water networks, including the African Network of Basin Organizations and Network of Asian River Basin Organizations, focus ‘on transboundary organizations as part of the support to integrated water resources management’. These collaborative networks operate alongside, and often in-conjunction with, regional inter-governmental water bodies, such as the African Ministers’ Council on Water. The Global Water Partnership (GWP) is an important example of a global organisation which is facilitating collaboration between stakeholders and providing technical assistance at different scales of transboundary water management: national, basin and regional levels. GWP’s comprehensive network of partners around the world (GWP has over 2,800 partners in 167 countries) is open to all institutions and organisations involved in water resources management. GWP acts as a central facilitator between partners, helping ‘countries to connect water resources planning and operations at different scales […] so that actions are coherent and sustainable’\textsuperscript{429}, which in-turn provides ‘knowledge and builds capacity to improve water management at all levels: global, regional, national and local’\textsuperscript{430}. Given the emphasis that global networks such as GWP place on linking regional, basin, sub-basin, national and local contexts to effective transboundary water resource management at all levels, these facilitative and capacity-building organisations will have a fundamental role to play in the global institutional architecture for transboundary watercourses, especially supporting the implementation of important water agreements, laws and policies which govern these resources, such as the UNWC.

4.2.3 Training, education, research

There are many institutions both within and outwith of the UN system that have a long tradition of providing technical support, education at freshwater initiatives at both the global and regional scales. Some, including UNESCO can offer specific and considerable expertise within the global institutional framework. UNESCO’s IHP Centres, which are situated around the world and typically hosted by academic institutions,\textsuperscript{431} as well as the International Association of Hydrological Sciences, have researchers who specialise in different water sectors and can provide valuable education and training to practitioners at the regional and national levels regarding technical aspects of implementation.\textsuperscript{432} Hence, it has been suggested that ‘Continued emphasis must be placed on institutional capacity building at a national level to ‘level the playing field’ and strengthen basin management, but in the context of local requirements, opportunities and constraints (rather than a universal model or approach)’\textsuperscript{433}.

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\textsuperscript{427} Mee, 256
\textsuperscript{428} Mee, 256. It must be noted that Mee made this conclusion based on a recommendation that UNEP and UNDP become a single, integrated organisation focusing on ‘sustainable development’ rather than remaining separately related to ‘environment’ (UNEP) and ‘development’ (UNDP) matters. Due to the UNWC’s underpinning sustainable development objectives and considering the integral role of UNEP and UNDP (along with other organisations within the institutional framework for sustainable development) this statement is commensurate with the circumstances of designing a global water institution. This statement is supported by WWF and DFID, 39
\textsuperscript{429} See: http://www.gwp.org/en/About-GWP/The-network/
\textsuperscript{430} See: http://www.gwp.org/en/About-GWP/The-network/
\textsuperscript{431} The IHP-HELP Centre for Water Law Policy and Science (under the auspices of UNESCO) based at the University of Dundee in Scotland, U.K. is one such example of this decentralised network of IHP Centres embedded within academic institutions.
\textsuperscript{432} Rieu-Clarke & Pegram (forthcoming), 74
\textsuperscript{433} Rieu-Clarke & Pegram (forthcoming). 74. This statement is supported by WWF and DFID, 13
4.2.4 Facilitation, coordination and dispute resolution

Facilitation, coordination and dispute resolution is ‘an area that requires greater attention and institutional development for the successful implementation of transboundary management’ of freshwater resources. A complex global framework for facilitation and coordination of water initiatives has developed. Currently however, at the global and regional levels, the institutional framework is ‘unevenly developed’. As discussed above, the over-arching role of coordinating MEAs, their linkages and synergies, has largely fallen to the UN, and UNEP in particular. However, with more than 20 different UN institutions dealing with freshwater issues, and given the scope of this paper, we cannot specifically investigate each of these UN bodies and their relevance to coordination of a global institutional architecture for watercourses and related MEAs. Indeed, many other existing international institutions that are not UN agencies or bodies also deal with the facilitation, coordination and dispute resolution of MEAs as well as water-related agreements, laws, and policies. The resulting mix of key stakeholders involved in these critical aspects of environmental law and policies is explored below.

At the global level, UNEP stands out as an important facilitating institution for transboundary water agreements given its role coordinating the Secretariats for seven key MEAs, as well as the Regional Seas Conventions. Crucially, several of these secretariats are located in cities different to UNEP’s global headquarters. In terms of coordinating these MEAs, ‘UNEP’s relation to the MEA secretariats involves both administration and substance’. Administratively, since 1998, UNEP provides all such assistance to secretariats via the UN Office of Nairobi (UNON), in the form of organising logistics and timetabling support for meetings and conferences. Substantively, UNEP’s role in co-ordinating the MEAs centres upon providing technical advice, policy communications, and information exchange to the secretariats for reporting purposes to their respective CoP/MoP. Typically, the scope of UNEP’s coordinating role is heavily influenced by the attitude and circumstances of the respective CoP/MoP.

UNEP is also involved in several MEA coordination initiatives that are broadly relevant to watercourse agreements at all scales, especially regional/basin instruments and national water laws. Their African Caribbean and Pacific MEA (ACPMEA) program provides strategic human, technical and financial resources to an MEA hub in each of these regions (as well as

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434 WWF & DFID, 13. See generally, WWF & DFID, 51-53
435 WWF & DFID, 13.
436 Andresen, 10, where it states: ‘it has recently been noted as a severe problem of co-ordination that there are more than 20 UN bodies dealing with freshwater (United Nations, 2006)’.
438 Andresen & Skjaerseth, 16-17, ‘For CITES and CMS there are joint secretariats with UNEP, based in Germany and Switzerland respectively, while the main UNEP Secretariat Nairobi is the base of the Vienna Convention (and the Montreal Protocol). The Ramsar Convention has links to UNEP, but also to IUCN while the Basel Convention is administered by UNEP but the Secretariat is located in Geneva’.
439 Andresen, 14; Also see, Iwama, 73.
440 Andresen, 14
441 Bauer, 34; Andresen, 14
442 Bauer, 34; Andresen, 14
443 Andresen, 14 ‘the secretariats look more towards their COPs for guidance, and not to UNEP’, and ‘Here the scope of UNEP’s role is influenced largely by the respective COPs: the multilateral environmental agreements are generally not ready for interference on the part of UNEP’.
for specific MEAs) with the aim of ‘strengthening the capacity of national governments, stakeholders, and regional organizations’ for MEA implementation. In 2011, UNEP also launched the website, InforMEA, a unique information portal for MEAs that includes ‘Conference of the Parties decisions and resolutions, news, calendars, events, country specific MEA Membership, national focal points and, in the near future, national reports and implementation plans organized against a set of 200 hierarchical terms taken from MEA Conference of the Parties (COP) Agendas’. InforMEA thus aims to ‘improve the sharing of information relating to over a dozen international agreements’ whereby ‘Harmonization of information standards and formats will facilitate the development of many other knowledge tools among conventions’. This range of initiatives, along with those targeting joint funding sources for the implementation of related MEAs, would allow UNEP to provide strong foundational mechanisms for linkages, synergies, and coordination between watercourse agreements at all scales and water-related global MEAs.

As regards dispute resolution, global institutions such as the World Bank have typically been playing the role of ‘honest broker’, an impartial decision-maker, in multi-stakeholder water infrastructure projects. The International Court of Justice (ICJ) and the Permanent Court of Arbitration (PCA) are the global institutions with both a general and a sometime specific mandate for resolving disputes. Such bodies are playing an increasingly important role in the use and management of freshwater resources, with disputes over transboundary water resources predicted to grow in the future.

Regional development communities and economic bodies such as the SADC and the UNECE have a clear mandate for not only facilitation and coordination of transboundary freshwater agreements, but oftentimes also regarding related matters involving dispute resolution within their jurisdiction. For instance, some argue that disputes falling under the umbrella of both

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444 See: http://www.acpmeas.info/about-structure.asp
445 See generally: www.informea.org
446 See:
447 See:
448 at its outset, InforMEA was said to include ‘17 MEAs from 12 Secretariats hosted by three UN organizations and the International Union for Conservation of Nature (IUCN)’ and that ‘It is open to observers involved in MEA information and data management’.
449 UNEP also coordinates initiatives such as a joint funding initiative to support the implementation of MEAs concerning chemicals and waste management. See generally,
450 Rieu-Clarke & Pegram, (forthcoming), 74
451 WWF and DFID, 13; See specifically, Art 33 UNWC regarding ‘Settlement of Disputes’, and the Annex regarding Arbitration.
452 The Pulp Mills on the River Uruguay Case, finally decided before the ICJ in 2010, is a crucial example of how the ICJ has played, and will increasingly play, a pivotal role in conflict resolution regarding transboundary water resources. See generally, Del-Cerro, M.A. ‘Paper Battle on the River Uruguay: The International Dispute Surrounding the Construction of Pulp Mills’ (2007-2008) 20 Geography International Environmental Law Review 161
454 Article 7 of the SADC Revised Protocol
the SADC Revised Protocol as well as the UNWC (when it enters into force) would ultimately be referred to the SADC Tribunal for a final, binding decision, rather than the PCA or ICJ. Hence, potential overlapping mandates with global institutions require careful consideration in the design of a global institutional framework for transboundary waters.

4.2.5 Non-State actors: interest based-organisations and companies

The increasing importance of interest-based representation from civil society and private sector institutions at the global level must not be understated. High-profile environmental non-government organisations (ENGOs), including the World Wide Fund for Nature (WWF) and the International Union for the Conservation of Nature (IUCN), are ‘in the vanguard’ who have conducted public and political awareness-raising, lobbying and advocacy campaigns around specific transboundary water issues. Examples of their work that is relevant to the implementation of the UNWC and other water-related agreements include: IUCN’s BRIDGE (Building River Dialogue and Governance) Project which aims to ‘build water governance capacities through learning, demonstration, leadership, and consensus-building, in particular in transboundary river basins’; and, WWF’s promotion of private sector water stewardship at the global level through close involvement in such the CEO Water Mandate, a unique public-private initiative designed to assist companies in the development, implementation and disclosure of water sustainability policies and practices, as well as networks such as the Water Footprint Network and the Alliance for Water Stewardship.

They are typically supported in their work at this global scale through collaboration with particular civil society and ENGOs that focus predominantly or solely on water-related issues such as Green Cross International (GCI) and International Rivers. However, these organisations generally prefer to target national and local issues rather than at the regional or global levels, as well as addressing more ‘tangible’ topics such as potable water supply and sanitation, rather than dealing with international law matters; although notable exceptions exist.

Additionally, multinational water companies play a fundamental role in water use and management at global and regional scales, especially regarding planned infrastructure projects such as hydropower schemes (although these are inevitably constructed at the transboundary and national levels). Corporate inter-governmental bodies such as the World

455 See, Salman, 1019
456 Rieu-Clarke & Pegrum, (forthcoming), 74
457 For examples of the WWF’s work in this area, see generally wwf.panda.org/about_our_earth/about_freshwater; For examples of the IUCN’s work in this area, see generally, www.iucn.org/about/work/programmes/water/
458 See: http://www.iucn.org/about/work/programmes/water/wp_our_work/wp_our_work_initiatives/wp_our_work_bridge/
460 See: http://wwf.panda.org/what_we_do/how_we_work/conervation/freshwater/water_management/
461 See generally: http://www.waterfootprint.org/?page=files/home
462 See generally: http://www.allianceforwaterstewardship.org/
463 See: http://www.gcint.org/what_we_do/water_for_life_and_peace
464 See: http://www.internationalrivers.org/
465 A pertinent example of this is the Thai energy company (Ch. Karnchang Public Company Limited) which signed a MoU in 2007 with the Laos PDR government regarding the construction and operation of the Xayaburi Hydropower Project on the mainstream of the Mekong River in Laos over a 30 year period, all of which is the subject of much controversy at present. For further information, see generally: http://www.internationalrivers.org/resources/media-kit-on-the-xayaburi-dam-3412
Economic Forum, and more specifically the UN CEO Water Mandate, are also ‘beginning to explore business risks’ around transboundary water resources. Thus, any global water institution must also maintain close links to the business community in order to effectively make use of the water sector’s vast financial and technical resources.

4.3 EXISTING INSTITUTIONS COULD AID IMPLEMENTATION OF THE UNWC

While it was noted earlier in Section 3 that many of the existing efforts in coordinating MEAs provide important insights into how watercourse agreements at different scales can be better coordinated, this begs the question of how does the existing architecture support transboundary watercourse management? It is clear from the preliminary analysis above that existing institutions already play a significant role in promoting and supporting transboundary water management at the global, regional, basin, national and local levels. Such roles include funding and development; technical support and awareness-raising; training, education and research; facilitation, coordination and dispute resolution. Ultimately, having a globally agreed legal mandate for transboundary water cooperation would enhance the legitimacy of existing activities, strengthen coordination, and provide a stronger focal point for promoting transboundary water issues within the international community.

466 See, generally www.unglobalcompact.org/issues/environment/ceo_water_mandate/ where it states: ‘Launched by the UN Secretary-General in July 2007, the UN Global Compact’s CEO Water Mandate is a unique public-private initiative designed to assist companies in the development, implementation and disclosure of water sustainability policies and practices’.

467 Rieu-Clarke & Pegrum, (forthcoming), 74
5. INSTITIONAL OPTIONS FOR COORDINATING GLOBAL INSTRUMENTS GOVERNING TRANSBOUNDARY FRESHWATER RESOURCES

Based on the range of ‘internal’ and ‘external’ factors listed above relating to treaty effectiveness, it is of vital importance that certain scenarios and the subsequent options that they present for the UN Watercourses Convention and the UNECE Water Convention, along with the ILC Draft Articles be considered urgently in order to shape the institutional architecture around these instruments. Below is an overview of the possible scenarios that could occur from the current developments concerning these international instruments and the resulting institutional options that are presented for their separate and/or mutual implementation.

These scenarios do not seek to prescribe one particular option, but rather examine certain possibilities and their likely consequences. It is hoped that by presenting these four scenarios in such a manner, this document and the underlying research will assist decision-makers to evaluate the various institutional options that might support the implementation of the UNWC. These proposed options and scenarios reflect a careful review of knowledge and experiences of appropriate institutional arrangements for the implementation of MEAs; as well as the mechanisms that promote coordination between global instruments and related agreements.

Indeed, this final section of the Report specifically considers the relationship between the UNWC and the UNECE Water Convention, and the main options for ensuring their coordinated implementation in the future. Such a discussion is vitally important given the prospects of both conventions existing as global treaties in force on the same subject matter of transboundary water cooperation. Those likely prospects are based on the following factual scenarios:

- The UNWC is open to accession by all countries and, as of May 2013, counts 30 contracting states – 5 short of the number required for entry into force. The UNWC was adopted following an extensive process whereby all UN member states were invited to provide comments on its draft text; and permitted to negotiate on that text within the UNGA. A vote – open to all UN member states – was taken upon adoption of the Convention, with 106 states voting in favour of the text to 3 votes against. From the beginning, the UNWC was drafted and negotiated at the global level and designed to become a universal instrument. The UNWC lacks provisions on governance mechanisms and there is no body mandated to oversee its implementation.

- The UNECE Water Convention has 39 parties covering almost the entire UNECE region. It was negotiated through an intergovernmental process under the auspices of UNECE and was adopted as a regional treaty. In force since 1996, the Convention offers a fully developed institutional structure to support implementation, and a wealth of knowledge and experience that would be useful for countries beyond the UNECE region. The Convention has been amended to become global, and would thus operate at the same level as the UNWC. It is expected that all UN member states will be able to join the Convention as of the end of 2013.

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468 ‘Internal’ factors are those characteristics within a treaty that influence effectiveness, such as the wording of its provisions and its autonomous institutional structure, including the secretariat and MoP.

469 ‘External’ factors relate to the elements of a treaty that underpin mutually reinforcing inter-linkages, synergies, and coordination with other legal instruments, policies, and institutions.

470 The UNECE brings together 56 countries located in the European Union, non-EU Western and Eastern Europe, South-East Europe and Commonwealth of Independent States (CIS) and North America.
In terms of their respective texts, the UNECE Water Convention has generally more detailed requirements than the UNWC. Yet, certain provisions in the latter supplement the former, e.g., those on planned measures and the factors relevant to equitable and reasonable use. Taken as a package, the two Conventions are therefore mutually reinforcing. Wherever possible, countries considering accession to one or both of these global water Conventions should look at the two instruments side-by-side.

In this context, we invite those reviewing this Report to consider some vital questions:

1. How best to build on synergies, ensure coordination, and avoid duplication in the implementation of both Conventions?
2. How can states capitalise on both the global legitimacy of the UNWC and vast experience under the UNECE Water Convention towards progressively building an effective, legally mandated, and truly global transboundary water regime?
3. How might an institutional framework (formal or informal) address existing water law fragmentation at different scales, and what are the legal (substantive and procedural) practicalities that must be dealt with to ensure its formation?
4. What steps would be needed to ensure that the respective parties to these Conventions receive the political, technical and financial support necessary to facilitate effective implementation?

The adoption of the UNWC as a global framework and the decision to open up the UNECE Water Convention offer a unique opportunity to establish a truly global transboundary water regime. At the same time, the imminent entry into force of the UNWC and the opening of the UNECE Water Convention call for a careful analysis of how to:

- Ensure that the two global transboundary water Conventions are implemented in a mutually reinforcing manner, so as to avoid duplication, exploit synergies, maximise the efficient use of resources, and promote the coherent development of international water law; and
- Capitalise on the global legitimacy of the UNWC and the 20 years of experience under the UNECE Water Convention towards progressively building a legally mandated, effective and truly global transboundary water regime.

This Report aims to support such an analysis by exploring three basic options for coordinating the UNWC’s implementation process with activities carried out under the UNECE Water Convention. The three options, which are discussed in detail below, are as follows:

- **OPTION 1** – A formal institutional framework for the UNWC is created and the UNECE Water Convention secretariat is mandated to also service the UNWC parties.
- **OPTION 2** – A formal institutional framework for the UNWC is created and serviced by a new UNWC secretariat, separate from the UNECE Water Convention secretariat.
- **OPTION 3** – No formal institutional framework for the UNWC is created immediately following its entry into force.

One particular option is not favoured over another. Rather, in presenting these three options, the Report aims to tease out the most salient strengths, weaknesses, opportunities and threats of each. This, in turn, might assist the reader in formulating his or her own opinion as to the most preferred option.
It is also accepted by the authors that a full spectrum of different institutional arrangements could unfold for the future implementation of the UNWC and its coordination with the UNECE Water Convention. However, it is envisaged that, by focusing on the three options noted above, the Report captures the most salient positive or negative aspects of any potential option.

THREE MAIN INSTITUTIONAL OPTIONS: UNWC AND UNECE CONVENTION

Source: Authors’ own diagram

5.1 OPTION 1

A formal institutional framework for the UNWC is created and the UNECE Water Convention secretariat is mandated to also service the UNWC parties.

Under Option 1, a Meeting of the Parties (MoP) to the UNWC would be established, and would take place back-to-back with the MoP to the UNECE Water Convention. The mandate of the UNECE Water Convention secretariat would be extended to support the institutional frameworks of both Conventions in a separate, but coordinated manner. Work programmes under each Convention could include common objectives, joint activities and joint implementation bodies. Parties to the UNWC would not be bound by the obligations under the UNECE Water Convention, unless they joined the latter, and vice-versa.

5.1.1 Strengths and opportunities

a) Having the same secretariat service both Conventions is likely to be the most effective means by which to ensure that both instruments develop in a complementary and mutually reinforcing manner. Compared to options 2 and 3, therefore, a shared secretariat would be best placed to coordinate the respective implementation processes,
and avoid further legal fragmentation in the field. This option would therefore enable the coherent development of international water law.

b) A shared secretariat would also offer the most effective and efficient means by which to develop a common strategy for promoting new membership to both Conventions. Such coordination is crucial given that the lack of a common strategy could lead to states receiving mixed messages on the advantages and disadvantages of both instruments, or feeling overwhelmed with the prospects of joining a second global water treaty. Such mixed messages could jeopardise new membership to one or both Conventions.

c) This option would create a clear entry point and “one-stop shop” for transboundary issues at the global level, and the technical or legal assistance required.

d) Economic efficiencies are likely to be greater than for option 2, given that it would require less resources and time compared to establishing a completely new secretariat and separate activities for the UNWC.

5.1.2 Weaknesses and threats

a) Unless managed carefully, a secretariat based in Geneva may be perceived as being less favourable by some countries. However, the presence in Geneva of the permanent missions of practically all UN Member States would make it easier for developing countries and other states to engage in implementation activities and participate in meetings. In addition, the benefits from various water-related UN and associated offices being located in and around Geneva could prove compelling.

b) This option would require both a formal decision among the parties to the UNECE Water Convention to expand the mandate of their secretariat and an amendment to the UNWC incorporating provisions on governance mechanisms. Both decisions could take considerable time and resources to secure.

5.2 OPTION 2

A formal institutional framework for the UNWC is created and serviced by a new UNWC secretariat separate from the UNECE Water Convention secretariat.

Under Option 2, an institutional framework is created for the UNWC and serviced by its own secretariat separate from the UNECE Water Convention secretariat. This new structure could be established as an entirely new body, or hosted within an existing institution. The existence of separate secretariats for each Convention would not preclude the possibility of joint implementation activities, provided there was close coordination between the two bodies and the parties to each convention.

5.2.1 Strengths and opportunities

a) If hosted by an existing global organisation active in (transboundary) water issues, the UNWC could provide that organisation with a strong legal mandate to further its aims and objectives. Particularly if hosted by UNEP, the UNWC’s implementation could draw upon that programme’s experience in the implementation of MEAs and their effective coordination, including towards fostering synergies between the Rio Conventions on water-related issues.

b) The current lack of provisions in the UNWC offers an opportunity to create entirely new governance mechanisms for the 21st century.

c) As opposed to Option 1, establishing an entirely new UNWC institutional framework would not require any further changes to the UNECE Water Convention institutional framework.

d) The UNWC secretariat could be located in a developing country and/or in a region where there is a strong need to enhance transboundary water arrangements. This could give added impetus to strengthen transboundary water cooperation in that country or region.
e) Non-UNECE states could be more attracted to the UNWC with its institutional home being a global body, rather than a structure associated with the UNECE, which is a regional institution within the UN system.

5.2.2 Weaknesses and threats

a) The establishment of a formal secretariat and MoP would require all its parties to agree on the adoption of an amendment. The process for adopting and bringing into force such an amendment could require significant time and resources.

b) If such a secretariat were to be hosted under an existing organization, this would require a decision by the governing body of the organisation in question. This study has not assessed if and to what extent such a decision would be feasible within potential hosts. In general, the time and resources required to secure a positive decision would vary between different institutions. Where the governing body of a potential host is made up of states, considerable effort would likely be required to build widespread or, if required, unanimous support among its members for such an organization to service the UNWC parties.

c) Irrespective of whether a new formal institutional framework is independent or hosted by an existing institution, creating two parallel regimes is likely to result in the highest start-up and running costs out of all the three options.

d) Separate secretariats would increase the effort, time and resources required to coordinate between the UNWC and UNECE Water Convention. Therefore, achieving effective coordination would pose a greater challenge under Option 2 than under Option 1.

e) Demonstrating the benefits of an institutional framework and securing buy-in from states for this option would require time and resources. It might be easier to demonstrate the benefits of two institutional frameworks serviced by a unified secretariat, as envisaged in Option 1, given that the UNECE Water Convention regime is already established. Similarly, a less formal arrangement, as described in Option 3 below, might prove more feasible.

5.3 OPTION 3

No formal institutional framework for the UNWC is created immediately following its entry into force.

In Option 3, the contracting states to the UNWC would decide not to immediately establish a formal institutional framework to support its implementation. Such a decision would be without prejudice to any informal arrangements being established to create an institutional ‘home’ for the Convention. Such information arrangements could allow for some coordination amongst the UNWC parties, as well as between both Conventions.

5.3.1 Strengths and opportunities

a) No formal institutional framework to support the implementation of the UNWC coincides with the current situation. This option might therefore be the most acceptable to those parties that ratified the Convention on the basis of there being no formal mechanism in place and thus no need for financial commitments to support such a mechanism.

b) Informal arrangements – supported by individual or groups of Parties, as well as sympathetic inter-governmental and non-governmental institutions – could be put in place to support the implementation and development of the UNWC in the absence of a formal institutional framework. Such an arrangement could build upon and strengthen the activities undertaken through the UNWC Global Initiative, e.g., training and awareness-raising workshops, the 2012 UNWC global symposium, tools such as the user’s guide and its website, and country and regional assessments.
c) Costs of this option would be relatively low and non-structural, while at the same time providing support for the UNWC’s expansion and implementation.

d) This option would accommodate proposals that have already materialised, such as the offer by the French Government, at the 6th World Water Forum, to host a meeting of the parties to the UNWC upon its entry into force.

e) Through time, and if deemed necessary, such an informal platform could evolve into a more sophisticated mechanism for implementation and coordination, as envisaged in Options 1 or 2. A precedent for this can be seen in the evolution of the Ramsar Convention, from the adoption of the original text to the 1982 Protocol and ultimately the 1987 Regina Amendments.

f) The UNWC would remain an authoritative statement of existing and emerging customary international law, and would likely continue to influence state practice, especially if it progressively gained widespread endorsement.

g) If the UNECE Water Convention attained a significant number of ratifications from outside the UNECE region, and complementary informal activities to promote the UNWC were effective, a global transboundary water regime could still be formed under Option 3, while avoiding the added (structural) resources required in Options 1 and 2.

5.3.2 Weaknesses and threats

a) Parties to the UNWC would not benefit from having in place a formal institutional framework to expand its base. The absence of an institutional “home” for the UNWC could therefore be seen as a barrier to accelerating its ratification process.

b) The lack of a mandated structure to oversee the UNWC could have an impact on its parties, by making it harder to mobilise potential donors and partners around implementation. Entry into force of the UNWC as such creates a unique window of opportunity to address this risk.

c) It may be harder to coordinate activities between the UNECE Water Convention and UNWC when there is no formal institutional framework for the latter instrument.

5.4 ADDITIONAL POINTS TO CONSIDER WITH RESPECT TO ALL THREE OPTIONS

Under all three options, two Conventions remain. States that join both Conventions would be expected to engage in two implementation processes, each potentially with its own bodies, meetings and work programmes. To ensure that the benefits of having both Conventions operating at the global level are realised, it is crucial that, for whatever option, effort is put into developing suitable coordination mechanisms that maximise synergies and avoid duplication, such as back-to-back or joint meetings, shared work tasks and joint implementation bodies. Specifically, effective coordination would:

- Allow the UNWC parties to capitalise on 20 years’ experience in the implementation of the UNECE Water Convention, by ensuring that: a) the detailed text and accompanying recommendations, guidelines and model provisions of the latter help inform the interpretation and application of the more general provisions of the former; and b) the experience in setting and maintaining an institutional framework under the latter guides decision-making in this regard under the former.

- Provide parties to the UNECE Water Convention with the opportunity to exchange experiences with the parties to the UNWC, particularly in areas where the latter instrument is more detailed, or where UNWC parties were not also parties to the UNECE Water Convention.

- Enable both Conventions to operate at the global level whilst providing states with some flexibility. For example, some states may be more willing to join the UNWC as its provisions more closely reflect their existing treaty practice. Similarly, a state that may
have recently become a party to either Convention might initially wish to avoid undertaking a further, potentially lengthy, process of accession to another global water convention.

**Ineffective coordination** between the two instruments, which deal essentially with the same issues, could lead to confusion amongst states concerning the value of either regime, or why they should join both or choose between the two. Without a common strategy and message amongst those institutions promoting both of these Conventions as complementary and mutually reinforcing, such confusion could hamper efforts to attract additional parties to either Convention. Weak coordination could also lead to greater legal fragmentation and competition over resources, political attention and mandates.

**All three options envisage either or both Conventions operating at a truly global level.** However, it is not possible to predict at present whether the UNWC and/or the UNECE Water Convention will eventually enjoy universal ratification by states. Regarding this issue, some vital points to consider are that:

- As mentioned above, the UNWC carries considerable global legitimacy that stems from the open and global process leading up to its adoption. Despite this, the Convention has yet to enter into force. The acceleration in its ratification process over the last few years, however, sends a strong signal that the Convention will soon enter into force, which in itself could trigger renewed interest among states and additional ratifications over the coming years.
- As originally negotiated, the UNECE Water Convention was designed to address transboundary water issues within the UNECE region, and its current membership is dominated by European states. Non-UNECE states would have to be convinced that the Convention can benefit them. In this regard, the existing legal and institutional *framework* of the UNECE Water Convention is potentially flexible enough to prove relevant across the world’s transboundary waters. Since 2009, non-UNECE members have participated in activities under that Convention; and such activities could be expanded further as more states joined the regime. Parties to the UNECE Water Convention have engaged with other MEAs and global partners (e.g., UNFCCC, UN-Water, GEF and UNESCO). The UNECE has experience in servicing global processes, e.g., in the field of trade and transport, with an active involvement of countries throughout the world.

Regardless of which option is chosen – and in order to secure global membership of both Conventions and effective coordination – it may prove important to identify regional hubs, e.g., existing basin commissions or regional institutions that could take responsibility for promoting and implementing both Conventions in a coordinated manner.
6. KEY MESSAGES AND CRITICAL QUESTIONS

The likelihood of entry into force of the UNWC in the near future is now significant. This prospect opens up a unique and urgent window of opportunity to investigate how institutional mechanisms might support the implementation and effectiveness of this global framework instrument. Such mechanisms were not included in the original design of the Convention, and there is a scarcity of research looking at the role that a global convention and associated institutional mechanisms (in other words a regime\footnote{In this paper the classic international relations meaning of ‘regime’ is used, ‘implicit or explicit principles, norms, rules and decision-making procedures around which actors’ expectations converge in a given area of international relations’ (Krasner, 1989).}) might play in the context of the multi-level governance of transboundary waters. This Report therefore considers the ‘value add’ of having a global transboundary water regime in place, which while not replacing regional, basin and sub-basin arrangements could complement such instrument by capitalising on the benefits of collaboration and coordination.

The need to examine this issue is confounded by the fact that the State parties to the UNECE Water Convention have accepted the 2003 Amendment which will expand its geographic scope to the global level once it becomes operational, most likely by the end of 2013. Additionally, 2013 will see the UNGA decide, the final form of the International Law Commission’s 2008 Draft Articles on the Law of Transboundary Aquifers (‘ILC Draft Articles on Transboundary Aquifers’). In the foreseeable future, therefore, it is likely that there will be at least two, if not three, global conventions dealing with transboundary water issues in force. As previously stated at the beginning of this Report, given these critical developments in the legal architecture relating to transboundary waters, a fundamental question that must urgently be addressed is: \textit{what existing and potential institutional options are available to ensure that these global instruments are implemented in a mutually reinforcing and effective manner?} In seeking to answer this question, the key messages and some critical follow-up questions to consider that emerge from this Report are summarised below.

\subsection*{6.1 TOWARDS ENTRY INTO FORCE: KEY MESSAGES FOR AN EFFECTIVE UNWC}

\subsubsection*{6.1.1 What makes international environmental agreements effective?}

From this paper’s preliminary analysis of the internal structures of MEAs, formal institutional mechanisms, such as a secretariat, periodic meetings among parties, work programmes and subsidiary bodies, have collectively been shown to play a key role in fostering cooperation and facilitating implementation of international environment treaties at all relevant levels. Alternatively, informal institutional arrangements, such as educational workshops and consultations, the production of policy papers and training manuals, as well as advocacy campaigns to raise awareness about the benefits to riparian States of strengthening international water laws can also play a highly beneficial role in promoting MEAs, whereby such a strategy could be a possible starting point whilst formal institutional structures are planned for and implemented at a later point in time. A combination of mechanisms, whereby an informal arrangement may develop into a formal MEA institutional structure, could also be a positive strategy in a situation where establishing a legally-mandated, autonomous treaty body is not a viable or appealing option to State parties and other stakeholders in the short term. However, irrespective of the specific design and organisational elements that may constitute the institutional framework for the UNWC, it is undeniable that having some type of institutional arrangement(s) will support more effective implementation of the Convention upon its entry into force.
Outside of a treaty’s internal organisational design, this Report has also highlighted the myriad of institutions, organisations and stakeholders that, individually and collectively, play a vital role in ensuring the overall effectiveness of international environmental agreements. Our analysis has touched upon some of the key stakeholders in transboundary water governance across a range of areas; from funding and development bodies or training and research centres, to coordination and facilitation institutions, as well as non-State interest-based organisations, the global institutional architecture governing transboundary water resources is undoubtedly comprised of a complex web of actors. By mapping the different inter-connections between this vast range of stakeholders in more detail and then developing specific strategies to mobilise and utilise institutional resources in the most efficient way, State parties to the UNWC may be able to ensure the effective and mutually reinforcing implementation of the Convention with: the UNECE Water Convention; regional, basin and sub-basin transboundary water agreements; national water laws and policies; and, water-related MEAs.

In assessing which internal mechanisms and external actors should be integral to the development of an institutional framework for the effective implementation of the UNWC, this Report posits that the following key messages are the most vital considerations for State parties and relevant decision-makers to incorporate:

- **Complex problems, complex solutions**: Water cooperation constitutes a complex problem. Effective and sophisticated institutions must be in place to address knowledge gaps, develop shared understandings and ensure optimal and sustainable water management for the equitable benefit of all users.

- **Global instruments and interpretive mechanisms**: With clearer provisions, there is less interpretive discretion and breaches are easier to ascertain. However, complex problems often require ‘opened textured’ principles, such as equitable and reasonable use. Institutions play a key role in assisting in the application and interpretation of such principles within a given context.

- **Institutions as collective learning forums**: Through pilot projects, reporting, technical and scientific programmes, and so forth, institutions reinforce implementation by serving as effective vehicles for developing capacity and a better understanding of problems, designing tailor-made responses, and assessing the impacts of those responses.

- **Participation of non-state actors and the legitimacy and effectiveness of water regimes**: In moving beyond standard-setting, the value of non-state actors in the implementation of international agreements has become increasingly evident. Institutions can serve as the main communication channel between parties and other stakeholders.

- **Implementation primarily takes place at the national level**: The implementation of international legal commitments is contingent on the adequacy of national laws and institutions. Global and regional regimes can play an important role in supporting national implementation, as experience under the UNECE Water Convention so well illustrates.
6.1.2 Key elements to strengthen the global institutional framework for the UNWC

A number of key characteristics and elements from the above discussion translate directly to our examination of the main options for developing an institutional framework for effective implementation of the UNWC, and more broadly for the global institutional architecture governing transboundary waters, including the UNECE Water Convention. These are:

- **Governing transboundary waters equitably and sustainably is fundamental to addressing a range of pressing global challenges**, including water, energy and food security; climate change; and sustainable development.

- **While there has been significant progress within some regions, most shared freshwaters still lack adequate governance arrangements.** This is evident from the number of transboundary basins worldwide which are lacking a legal regime that covers all States within the basin or those legal regimes to which not all of the basin States are parties.

- **A global regime is thus needed to strengthen the governance of transboundary waters.** This is recognized by the adoption of the UNWC and the 2003 Amendment to the UNECE Water Convention opening it for accession by all UN member States.

- **The imminent entry into force of the UNWC and operationalisation the 2003 Amendment to the UNECE Water Convention calls for urgent and on-going global, multi-stakeholder debate** on how to:
  
  - Ensure that the two global water conventions are implemented in a mutually reinforcing manner, avoiding duplication, maximizing resources and exploring synergies; and,
  
  - Build on the complementarities between these Conventions in order to establish an effective global transboundary water regime.

**POTENTIAL BENEFITS OF A GLOBAL TRANSBOUNDARY WATER REGIME**

Act as a global hub through which to coordinate transboundary water-related initiatives, programmes, projects, and exchange best-practices across basins and regions;

Establish a visible and prominent global focal point to advance transboundary water cooperation within wider international policy, programmes and initiatives related to peace and security, sustainable development, climate change and so forth;

Foster shared understanding and widespread adoption of general rules and principles of international water law, with a view to raising the minimum legal standard;

Act as a mechanism to address legal and institutional fragmentation at various levels; and,

Support implementation and compliance at the basin and national level, through, e.g., compliance strategies, capacity building and technical assistance.
6.2 TOWARDS ENTRY INTO FORCE: TWO GLOBAL WATER CONVENTIONS

In the very near future it is extremely likely that there will be two global transboundary water conventions in force – the UNWC and the UNECE Water Convention. Therefore, a clear strategy for coordinating implementation of these two framework instruments at the global level is urgently required. Any strategy must incorporate practical options for developing institutional arrangements to support the separate but mutually reinforcing implementation of each Convention and facilitate their on-going coordination.

Several options can be envisaged in this context, each with their own strengths and weaknesses. These options were discussed in some detail above based on the similarities and differences between these legal instruments, their stakeholders, available resources, and respective experiences so far of effective implementation. The UNECE Water Convention has more detailed requirements. In its turn, the UNWC has important supplementary provisions, such as those on planned measures and dispute settlement. Taken as a package though, the two Conventions are mutually reinforcing. Hence, they should be promoted in a coordinated manner to non-party riparian States so as to highlight the respective strengths of each legal instrument and moreover, the complementarities of both Conventions when working together.

Wherever possible, therefore, countries considering accession should look at both instruments side-by-side. In sum, it is important to keep in mind the following:

- The UNWC was negotiated at the global level and designed to become a universal instrument; yet, this Convention currently lacks provisions on institutional implementation mechanisms, as its negotiators had envisioned that implementation would take place fundamentally in the context of watercourse agreements; and

- The UNECE Water Convention was negotiated and adopted as a regional legal instrument, among countries within the Pan-European region. Still, this Convention offers a fully developed institutional structure to support implementation, and a wealth of knowledge and experience to share with the world.

6.2.1 Critical questions for future institutional development and coordination

Beyond the issue of content, the potential existence of two effective global water conventions in the near future raises several critical questions pertaining to their implementation:

- How to build on synergies and avoid duplication between the UNWC and UNECE Water Convention, especially given the UNECE’s 20 years of experience in supporting transboundary water cooperation at various levels?;

- Which specific examples of MEA institutional arrangements (formal, informal, or a combination of both) developed prior to, and after, entry into force can be used to develop a roadmap for the UNWC and its relationship with the UNECE Water Convention?;

**KEY QUESTION FOR FURTHER INVESTIGATION**

What lessons can be learned regarding the institutional framework for implementing the UNWC from the Ramsar Convention - as a principle example of a global MEA developing from an informal arrangement (upon its entry into force) to later become a formal, legally mandated, institutional structure (after its entry into force)?
What specific examples of coordination mechanisms (e.g. joint secretariats and MoPs) between institutional frameworks of inter-related global MEAs exist which may assist the parties to the UNWC and UNECE Water Convention in planning coordination between these two global legal instruments?

KEY QUESTION FOR FURTHER INVESTIGATION

Can State parties to both the UNWC and UNECE Water Convention take any lessons from the coordination mechanisms utilised by the Secretariats of the three global chemical and hazardous waste Conventions (Basel, Stockholm and Rotterdam) which collectively have held joint CoPs in April/May 2013, the first back-to-back meeting of its kind for any of the global MEAs?

- How to make the best of both framework treaties being in force towards progressively building a legally mandated, truly global transboundary water regime?

Based on communication with States who have already initiated national ratification processes for the UNWC or who have expressed an interest in doing so, along with other officials closely monitoring the progress of operationalising the UNECE Water Convention’s 2003 Amendment, all of the above questions assume that, in the very near future (most likely within the next 12-18 months) the UNWC will enter into force and the 2003 Amendments to the UNECE Water Convention will become operational. Given that high-level discussions are already taking place regarding these issues and developing preliminary strategies to jointly promote these framework instruments. These questions are therefore not only extremely pertinent to the effective implementation of the UNWC, but also to the current debate as to how best to proceed with future plans to coordinate both Conventions at the global level.

6.2.2 Final comments

The above analysis, including three main institutional options presented for two global transboundary water agreements, does not seek to prescribe one particular institutional option to support the implementation of the UNWC, but rather seeks to suggest a number of possibilities and their likely consequences. Hence, the analysis is presented in such a way that hopefully assists readers in their own evaluation of the pros and cons of the various potential institutional options. Such an analysis also seeks to demonstrate that there are several ways in which the UNWC and UNECE Water Convention could be implemented in a mutually reinforcing manner. In so doing, it is hoped that this Report will provide useful preliminary guidance in any development of an institutional framework to support: the effective implementation of the UNWC; its coordination with transboundary water agreements, particularly the UNECE Water Convention; and, the development of mutually reinforcing inter-linkages and synergies with other environmental treaties, including water-related MEAs.

Perhaps more importantly, this Report has demonstrated that any crafters of an institutional framework for the UNWC do not have to ‘start from scratch’. Firstly, there is considerable knowledge and experiences of appropriate institutional arrangements for the implementation of MEAs; as well as the mechanisms that promote synergies and inter-linkages between agreements. Secondly, a significant number of transboundary water agreements and institutions already exist that can be used to draw lessons drawn from in developing the UNWC, most notably the existing institutional framework for the UNECE Water Convention. Finally, after broadly mapping many of the key stakeholders within the existing global institutional architecture for transboundary water resources, this Report makes the considered
argument that developing a global transboundary water regime in the future which builds upon the existing institutional architecture would be the most beneficial outcome to promote and facilitate the effective implementation of transboundary water laws at all levels. Therefore, any institutional arrangements for transboundary waters could and should strive to benefit as much as possible from this vast body of existing institutional knowledge and experience.