

**Dissolving Differences: Law and Water's role in legitimizing
global hierarchies**

Master of Philosophy: Marine Pollution and Environmental Law
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Table of Abbreviations:

CIL	- Customary International Law
ERU	- Equitable and Reasonable Utilisation
GATS	- General Agreement on Trade in Services
GATT	- General Agreement on Tariffs and Trade
GIL	- General International Law
ICJ	- International Court of Justice
IEL	- International Environmental Law
ILA	- International Law Association
ILC	- International Law Commission
IWL	- International Water Law
MDGs	- Millennium Development Goals
MEAs	- Multilateral Environmental Agreements
MNCs	- MultiNational Corporations
NAFTA	- North American Free Trade Agreement
NGO	- Non Governmental Organisation
SADC	- Southern African Development Community
UN	- United Nations
UNDP	- United Nations Development Program
UNEP	- United Nations Environmental Program
UNGA	- United Nations General Assembly
UNSC	- United Nations Security Council
VCLT	- Vienna Convention on the Law of Treaties
WTO	- World Trade Organisation

1. Introduction:

We live under the false illusion that there is an infinite supply of water on earth. In reality, quantities of available freshwater have remained constant for at least 2000 years while the global population has increased 33 fold during this same period. Rainfall remains the only form of renewable water resource and recycles around 45000 km³ of water per year, yet the world's population rises by around 85 million people per annum. Worryingly, World Bank estimates postulate a 56% increase in demand by 2025. As a result, the available quantity of water per capita is steadily decreasing and more than five million people, most of them children die every year from illnesses caused by drinking poor quality water. While at least one billion lack any access to clean water, North Americans use about 5,000 litres of water per person per day!¹

The number of countries experiencing chronic water shortages is likely to swell to 50 during the next 25 years yet overuse, pollution, diversion, waste and depletion continue at breakneck pace.² In the process, existing water sources are becoming more and more stressed as developing nations hastily and inefficiently develop new water sources while overlooking overuse and degradation of existing infrastructure and resources. The development of new dams continues at breakneck pace, often at the expense of local ecosystems and indigenous populations.³

Water is a vital resource to many levels of human survival. It fluctuates hugely in space and time and has multiple, conflicting demands on its use. Nations face increasing water demand for energy, industry, services and urban growth and states are increasingly linked by transboundary implications of their actions through the web of economic transactions across the globalising

¹ AT Wolf 'Conflict and cooperation along international waterways' (1998) Water Policy. Vol. 1 #2, 1998, pp. 251 at 252

² ibid

³ FA Hassan, 'Water for Peace: A Cultural Strategy' in 'History and future of shared water resources' (2003) UNESCO Technical Documents in Hydrology No. 6 available at unesdoc.unesco.org/images/0013/001332/133286e.pdf (Accessed Feb 2008) at 12

world. As a consequence, they are now forced to deal with implications of poor management techniques in other jurisdictions.⁴

The problems managing water are compounded in the international realm by poorly developed international law which is often contradictory or unenforceable. As a result, some commentators have argued that water is the resource that will bring future combatants to the battlefield in the 21st century. Invariably, they point to the arid and hostile Middle East as an example of a worst case scenario where armies have in fact mobilized and shots have been fired over this scarce and precious resource.⁵

Yet in this crisis lies opportunity, the opportunity to make a vast sum of money or the opportunity to secure a stable environment for the world's population. While the priority of the globalising world has clearly been commercial gain, it is imperative that we shift our objectives to spreading the benefits of access to sufficient water equitably throughout the world's population.

For an organisation that strives to secure world peace and cooperation, this restructuring of water rights must surely be a priority. The United Nations (UN) is committed to cooperation between nations and ensuring that the world's population has access to the resources necessary to live a life of happiness, freedom and productivity. Achieving these aims would go a long way towards reaching the UN's objectives of a more secure world and, in doing so, would contribute to their stock of that most desired commodity, legitimacy.⁶

However, security has proven to be elusive and global governance must overcome many challenges before they attain any semblance of it. Not least amongst these challenges is the international trading system itself, which consistently places economic imperatives before those of a stable environment and the needs of the global poor. As long as we allow

⁴ *ibid*

⁵ V Riana 'War over Water – Water flows uphill to money' (2003) Jubilee South available at www.jubileesouth.org/news/EpZyVVZykEBFJPggba.shtml (accessed October 2007)

⁶ DM Bodansky 'Legitimacy in international environmental law' (2006) University of Georgia School of Law Research paper series no. 06-007 available at papers.ssrn.com/sol3/papers.cfm?abstract_id=899988 (Accessed February 2008) at 6

international trading bodies a disproportionate amount of global power, the requirements of ordinary people will remain unserved and the staggering implications of a collapsing environment must surely take its toll.⁷

Water governance is shaping up as a crucial battlefield in the fight for primacy as, not only is it crucial to both national economies and individual needs, but it is fundamentally internationalised. Roughly 60% or 263 of the earth's rivers cross international boundaries and they hold unlimited potential for conflict. Indeed the value of water cannot be underestimated as corporations and governments alike scramble for already over utilised resources.⁸

The challenge for global governance is ensuring that all parties have adequate quantities to cater for their developmental needs while protecting this vulnerable resource. The international legal system needs to be equipped with pragmatic and flexible tools that are capable of achieving these ends. In doing so it can build the legitimacy of environmental protection measures and the organisations that seek to exert influence over the international realm.

2. Structuring change in the international system:

International law is a normative system that has as its primary objective the governing of state conduct to prevent conflict and ensure cooperation.⁹ International law, as distinct from national legislation, incorporates laws that have been developed over many centuries of interstate relations yet it continues to evolve to the present day.¹⁰ In fact, its evolution has accelerated dramatically over the last 50 years as it has matured from its original function

⁷ A Hilderling International law, sustainable development and water management (Delft: Eburon Publishers, 2004) at 113

⁸ At Wolf et al 'Navigating Peace: Water can be a pathway to peace not war' (2006) Woodrow Wilson Centre available at www.wilsoncentre.org/water (Accessed May 2008)

⁹ P Wouters et Al 'Sharing transboundary waters – an integrated assessment of equitable entitlement: the legal assessment model' (2005) UNESCO IHP-VI Technical documents in hydrology No. 74 Paris, available at

unesdoc.unesco.org/images/0013/001397/139794e.pdf (accessed December 2007)

¹⁰ *ibid*

of regulating formal diplomacy, to an extremely pluralistic, multifaceted role involving regulation of almost all fields of international activity.¹¹

While the increased breadth of coverage and involvement of international law in international affairs is highly desirable, its development has occurred in a haphazard manner and concentrates more on specific problem solving than on the formation of a coherent, structured body of laws.¹² Furthermore, it has tended to developed within regional or functional groups of states and thus a definite bias towards their preferences has been observed.¹³

The increased participation of all states, and inclusion of their vastly differing legal agendas, has lead to a plethora of differing viewpoints and has greatly challenged international law's institutional framework. It is in fact a well known paradox of globalization that while increasing uniformity of social life in different parts of the earth, it has increased fragmentation.¹⁴

While the reality of this fragmentation cannot be doubted, commentators are not in agreement on its effects. Some have criticized the undermining of GIL citing loss of legal security and the emergence of conflicting jurisprudence.¹⁵ Another view is that the alleged imperfections so often complained of in international law are for the most part only structural features inherent to the system, since they correspond to the needs of international society.¹⁶

Throughout legal history, norms and doctrines have competed for precedence and consequently the legal order has arranged itself in a hierarchical structure.¹⁷ As a result, international law is a structured legal system where new rules and principles that should be interpreted within the existing legal

¹¹ 'Fragmentation of international law: Difficulties arising from the diversification and expansion of international law' Report of the study group of the International Law Commission to United Nations General Assembly International Law Commission Fifty-Eighth Session Geneva. 1 May - 9 June and 3 July - 11 August 2006 at 3

¹² *ibid*

¹³ *ibid*

¹⁴ *Ibid* at 3

¹⁵ *Ibid* at 4

¹⁶ JA Carrillo Salcedo 'Reflections on the existence of a hierarchy of norms in International Law' (1997) 8 (4) EJIL 583 at 585

¹⁷ M Koskenniemi 'Hierarchy in international law: a sketch' (1997) 8 (4) EJIL 566 at 569

environment they are born into. It is not a random collection of norms and there are meaningful relationships and interactions between them. Norms may exist at theoretically higher or lower hierarchical levels, their formulation may have differing degrees of generality or specificity and their validity carries a multitude of temporal variations.¹⁸

However, as Brierly stated as far back as 1963, '*...the world is still in a laissez faire stage of legal development...*'¹⁹ and one wonders whether we have progressed much. Largely because of the lack of a central enforcement mechanism, international law often has no better recourse for the sanctioning of violations than the law of vendetta.²⁰ The International Court of Justice (ICJ) is the principal judicial organ of the UN yet it has failed to secure a clearly defined role as the central judiciary of the international community.

States or other entities more often refer disputes to standing judicial bodies and the strongest legal regimes have managed to create specialized panels that hear disputes applicable to their fields. Important standing judiciaries include the International Tribunal for the Law of the Sea, and the World Trade Organisation (WTO) Appellate Body. In many cases consent is given *ex ante* for this body to hear certain types of disputes such as subjects or claims under specific convention.²¹ In accordance with art 26 of its statute, the ICJ may form "specialized chambers" to deal with "*...particular categories of cases...*" Yet it is important to remember that international law is based on cooperation not subordination.²² Never can the jurisdiction of an international judiciary be presumed but can only be granted by the explicit consent of the states concerned.²³

¹⁸ *ibid*

¹⁹ JL Brierly *The Law of Nations* (Oxford: Oxford University Press, 1963) at pg 74

²⁰ JW Dellapenna 'International Water Law' (2003) *Water: Science and Issues* available at www.waterencyclopedia.com/La-Mi/Law-International-Water.html (accessed March 2007)

²¹ *ibid*

²² J Pauwelyn 'The role of public international law in the WTO: how far can we go?' (2001) 95 *The American Journal of International Law*, 535 at 552

²³ *ibid*

However, concepts such as sovereignty and consent are weakened in the age of transnational or even global consequences of activities within states.²⁴ The distinction between domestic and international jurisdiction has become increasingly blurred in the face of transboundary consequences.²⁵ The decline of the nation state has become apparent as borders become more permeable to people and ideas and governments are weaker than they were fifty years ago during the height of nationalism.²⁶ In the future, group rights may seriously challenge governments by legitimising and mobilizing primary loyalties other than the state, which increasingly cannot perform basic functions like mobilize force, provide basic services and maintain the rule of law.²⁷

Yet even as international law loses its force in the face of the weakening of consent, the growing list of international problems has necessitated a means to impose a set of universal norms on all nations of the world.²⁸ This function has been fulfilled by general international law, the rules of which are binding on all states and fill the gaps between treaties.²⁹ The emergence of general international law concepts such as *jus cogens* and their endorsement by such authoritative bodies as the ICJ seems to indicate that certain principles carry greater force and imply a hierarchy of norms in international law. The formulation of *jus cogens* strengthens the unity of international law by acknowledging that there are some norms which states may not legislate away or agree amongst themselves to abrogate.³⁰

²⁴ L Elliot "Expanding the Mandate of the UN Security Council to account for environmental issues" (2002) United Nations University Institute of Advanced Studies project on International Environmental Governance Reform working paper available at http://www.ias.unu.edu/sub_page.aspx?catID=112&ddlID=260(accessed October 2007)

²⁵ Ibid

²⁶ AR Turton 'Water and State Sovereignty: The Hydropolitical challenge for states in arid regions' (1999) available at www.soas.ac.uk/research/our_research/projects/waterissues/papers/38349.PDF (accessed October 2007) at 4

²⁷ Ibid

²⁸ D Shelton 'Normative hierarchy in international law' (2006) 100 *The American journal of international law* 291 at 293

²⁹ Pauwelyn op cit 22 at 554

³⁰ J Allain 'The jus cogens nature of non-refoulement' (2001) 13 (4) *The International journal of refugee law* 553 at 553

While less prescriptive ideas such as “global public law” or “global governance” may be easier to accept, the constitutionalisation of international law goes way beyond the idea of a hierarchy of norms derived from the prevalence of *jus cogens* norms and the priority granted UN charter obligations.³¹ Despite uncertainty over the role of human rights law, credence is being attributed to the emerging global bill of rights.

Human rights play an increasingly important role in protecting environmental and human security. The importance of human rights is widely acknowledged, yet their nature and role in international law remains uncertain.³² There is, however, increasing support for the idea that membership of the UN and participation in the International Legal Order entails respect for the inalienable core of human rights. Governments can no longer contract out of their human rights responsibilities by withdrawing from UN or other international agreements and can be held to these responsibilities through other mechanisms afforded them through international law.

Legitimacy of global governance:

While the forces of globalisation have, at times, proved problematic for international law as it has struggled to find flexible solutions to transboundary problems, it is possible that the increasingly important concept of legitimacy represents a new basis for compliance with international law. Ideally, Legitimacy is derived from legal authority, expertise or democratic accountability the belief that an entity acts within the ambit of international law.³³ What people consider legitimacy is shaped by their normative beliefs

³¹ M Wood ‘The Security Council and the ‘constitutionalization’ of international law’ (2007) University of Leeds available at www.law.leeds.ac.uk/leedslaw/webdocs/leedslaw/uploadeddocuments/cfig-wood.doc (Accessed December 2007)

³² Hilderling op cit 7 at 35

³³ RW Tucker and DC Hendrickson ‘The Sources of American Legitimacy’ (2004) Foreign Affairs available at <http://www.foreignaffairs.org/20041101faessay83603/robert-w-tucker-david-c-hendrickson/the-sources-of-american-legitimacy.html> (accessed January 2008)

rooted in opinion.³⁴ Therefore it is not impossible to say that a particular law or decision is misguided or inequitable or even unjust but is still legitimate.³⁵

Traditionally, the weakness of international institutions made legitimacy a less pressing issue in international law than in domestic law. To the extent that international law consists merely of specific treaty commitments, which states are free to accept or reject, the problem of rightful authority does not arise. However, the developing ability of international institutions to bind non-consenting states has begun to prompt concerns about the legitimacy of such bodies.³⁶

A major problem of globalization is that it involves the transfer of decision-making authority away from the nation-state towards a variety of unelected and unaccountable transnational bodies. Despite this, numerous provisions in international law have constantly affirmed the leading role of the UN and the non-violability of its web of treaties.³⁷ It is recognized that the UN charter itself enjoys special character owing to its universal acceptance and the fundamental nature of some of the norms it houses, particularly its principles and purposes and as a result it has strengthened the multilateral framework of GIL by receiving widespread ratification.³⁸

The primacy granted to the UN extends not only to the articles of its charter but also to the binding decisions made by UN organs such as the United Nations Security Council (UNSC). Given the constitutional character of the charter, coupled with the established practice of states and UN organs, charter obligations may also prevail over any inconsistent customary international law (CIL). This is especially clear in the case of art 103 which explicitly grants primacy to the charter and is an example of a provision of the charter having a constitutional function and character. In this way it does bear

³⁴ Bodansky op cit 6 at 6

³⁵ Ibid at 5

³⁶ ibid

³⁷ Kristin Dawkins 'The hierarchy of international law: a hierarchy of values? March 30, 2005. Institute for agriculture and trade policy www.iatp.org/iatp/commentaries.cfm?refid=89738 (accessed January 2008) at 1

³⁸ Pauwelyn op cit 22 at 565

some analogy with domestic law and carries a great deal of normative force, yet it does not provide the service of a "world constitution."³⁹ Indeed a too heavily constitutionalist approach would ignore the charter's subservience to preemptory norms and thus encourage acts *ultra vires* on the part of the council. Such acts contribute to the demonization of the Security Council and threaten the body's function as the central mechanism of multilateralism.⁴⁰

Indeed the UN is facing a crisis of legitimacy of unprecedented proportions. If they are to maintain their position as the pre-eminent international organ and strengthen their supra-national standing they must increase observance of the limitations of their powers laid out in the charter as well as those emerging in areas of human rights and the concept of *jus cogens* norms. The council often imposes unrealistic obligations on states, ignoring domestic legal traditions and capacities often contributing to internal conflict. Furthermore the UNSC is not subject to oversight or external controls which have the potential to further degrade its legitimacy.⁴¹

Thus, the proponents of global governance seem to be arguing for application of public law principles found in the domestic setting at the international level. A failure to do so may bring the legitimacy of their actions into question as domestic jurisdictions are likely to find fault with policies that are highly contradictory to their own.⁴² As Brierly notes '*...law will never play a really effective part of the international system until it can annex to its own sphere some of the matters that currently fall into "domestic jurisdiction"....*'⁴³

However, the international community has little in common with a national society and UN led International Criminal Tribunal for the former Yugoslavia warns '*...the transposition onto the international community of legal institutions, constructs or approaches prevailing in national law may be a source of great confusion and misapprehension...*'⁴⁴

³⁹ Wood op cit 31

⁴⁰ *ibid*

⁴¹ *ibid*

⁴² *ibid*

⁴³ Brierly op cit 19 at 75

⁴⁴ Wood op cit 31

In the past, the legitimacy of state power has been inextricably linked to their involvement with consensual forms of decision making. Thus the normative order of the young UN strove to enshrine consultation at all levels and sought to reconcile divergent views of the alliance partners. Although the collaborative system envisioned in the UN charter was an early victim of the cold war, the US continued to seek the broadest possible consensus within the western alliance and the broader international community for its actions. The aftermath of the second gulf war has further isolated the lone superpower from its allies in Europe and exacerbated already strained tensions with the Muslim world, where it desperately needs to win over the “hearts and minds” of the populace to lessen the appeal of terrorism.⁴⁵

The fall in US legitimacy corresponds to its rise in contempt for international organs and the invasion of Iraq in the face of UNSC opposition was a major turning point.⁴⁶ This and other unilateral normative extensions of the *jus ad bellum* places undue stress on the international system and have had a negative effect on US legitimacy. In addition, American supremacism is reflected in their stance towards the multilateral structure, notably their stance on the international criminal court, the Kyoto protocol and the human right to water. Unilateralism undermines the legitimacy and objectives of the UN and international problems should be tackled in a way that promotes the multilateral system.⁴⁷

Europeans have differed substantially in their approach, with a more favourable approach to both the rules-based world order and the central role of the UN in international affairs. The developing world, meanwhile, has used the stand-off as an opportunity to seek to strengthen the rules based and, crucially, justice-based world order. They should continue to show faith in the UN and seek to increase their participation in peacekeeping, treaty

⁴⁵ Tucker & Hendrickson op cit 33

⁴⁶ ibid

⁴⁷ ibid

negotiation and other forms of cooperation to ultimately strengthen capacity and attempt to build their economies.⁴⁸

Reform of the current system:

The UN's 1945 commitment to 'international cooperation' has not yet borne fruit and a revision and restructuring of interstate relations and strategic partnerships are a prerequisite of redress.⁴⁹ Indeed, most commentators agree that the UN is in dire need of reform yet there remains considerable debate over what form this reform should take.⁵⁰ NGO leaders seek a more democratic UN with greater accountability. Technocrats ask for greater efficiency and productivity among UN staff. Delegates promote national interests and powers. Idealists seek expanded mandates and a reduction of state sovereignty.⁵¹ Few reformers are willing to admit that the UN dysfunction results from deep-rooted disagreements among member states and increasing power imbalances throughout the global machinery. In the world of rising inequality, disagreement will surely continue to hamper the operation of the UN and maintain its fragmented and contradictory nature.⁵²

The existing international political and economic system grounded in the parochial interests of states and industries is a major part of the problem. The centre periphery nature of today's global economy results in unfair distribution of wealth and erodes the status of sovereign equals, yet challenges to this system are often perceived as challenges to the sovereignty of the nation state to execute their economic will.⁵³ It is important to remember that both trade agreements and human rights treaties coexist in the multilateral system alongside other regimes promoting their respective fields' principles.⁵⁴ It is

⁴⁸ *ibid*

⁴⁹ C Landsberg 'The United Nations: achieving a rules-based global order' (2003) UN foundation available at <http://www.unfoundation.org/newsroom/publications.asp>(accessed December 2007)

⁵⁰ J Paul and C Nahory 'Theses towards a Democratic reform of the UN Security Council' (2003) Global Policy Forum available at www.globalpolicy.org/security/reform/2005/0713theses.htm (accessed December 2007)

⁵¹ *Ibid*

⁵² *ibid*

⁵³ Turton *op cit* 26 at 6

⁵⁴ Dawkins *op cit* 37 at 1

becoming increasingly clear that reform of the Bretton Woods institutions is of great importance to properly embrace a fair trade approach and for rules-based ethos to penetrate the financial system. This shift to fairness entails the restructuring of the international financial architecture to further prevent the use of multilateral organisations for unilateral purposes.

If the world order is to be stabilized then greater effort needs to be given to establishing a new society that can convince rich and poor, weak and strong to comply with legitimately generated rules. The UN has a central role to play in articulating a principled and ethical rules-based world order that will offer both developing and developed nations an opportunity to defend their interests and rights. Reform must reach the decision making structures to democratise and restore accountability to these institutions. Since 1945, they have drifted further away from the UN system until they have become a law unto themselves. Their lack of global accountability has in part accounted for their inability to deal with financial volatility.⁵⁵

Global governance calls for the central role of the UN to be strengthened and to balance hard and human security issues.⁵⁶ However, UN structures continue to mirror post world war power relations and reform is painfully slow. Many in the developing world are calling for increased democratisation of the UNSC to make the primary organ more representative.⁵⁷ Further impetus comes from the realisation that the UNSC is administratively and normatively ill equipped to deal with emerging challenges.⁵⁸

By continuing on their path of multilateralism, the UN can develop principles rule and norms that will enhance their legitimacy and develop meaningful new relationships by continuing to emphasize the connection between socio-economic developments and adherence to democratic principles.⁵⁹ The UN is uniquely placed to foster new forms of cooperation between, for example,

⁵⁵ Landsberg op cit 49

⁵⁶ ibid

⁵⁷ ibid

⁵⁸ Elliot op cit 24 at 18

⁵⁹ ibid

Africa and the developed world, north and south.⁶⁰ In line with the commitment to a rules-based world order, the UN needs to foster close relationships with regional organizations like the Southern African Development Community (SADC), African Union, Organization of American States and European Union. The desired unity can only come about through strengthening of multilateral institutions and cooperation which needs to occur at all levels.⁶¹ The UN needs to utilize its position at the centre of international relations to overcome key challenges facing the global community. By focusing on results and increasing its efficiency and expertise, the UN can consolidate its legitimate role as the central actor in this arena.

Prioritising environmental imperatives:

Legitimacy is an increasingly important issue in international environmental law. The growing severity and complexity of environmental problems has increased the need for institutions with greater legislative, administrative and adjudicatory authority. It has also necessitated a more flexible approach, capable of dealing with emerging problems and solutions through the development, implementation and enforcement of international norms. Whether the international community is successful in developing such institutions will depend in part on whether they are accepted as legitimate.⁶²

Legitimacy has practical implications and represents a potential basis for compliance with IEL apart from consent, self-interest and coercion. A regime's legitimacy has been shown to have wider ramifications, influencing its development and stability. The willingness of states to accept IEL institutions and give them increased decision-making powers will depend on whether they trust it to make good decisions.⁶³

IEL has, like international law more generally, has relied on the two traditional bases of consent and legality to derive their legitimacy and, as a result, most

⁶⁰ *ibid*

⁶¹ *ibid*

⁶² Bodansky *op cit* 6 at 3

⁶³ *ibid*

of IEL has developed through a consensual process. Nowadays, states realise that they cannot solve transnational or global environmental issues in isolation and have agreed to collective means through a reciprocal exchange of promises. Such agreements cover many aspects such as the limitation of ozone depleting substances or the trade of endangered organisms. Because of the legitimacy of consent as a basis of obligation, these commitments persist through time and continue to bind states, regardless of their constant agreement with what they provide.⁶⁴

Two factors are likely to undermine consent and legality as bases of legitimacy for IEL. Firstly, the coming generation of environmental problems is likely to require the development of more flexible and expeditious lawmaking techniques, not wholly dependent on the consent of states. Consensus decision-making is time-consuming and difficult and often results in lowest common denominator type efforts.⁶⁵

It is for this reason that the UNSC requires the agreement of only the five permanent members of the UNSC and otherwise makes decisions based on a qualified majority vote. However, voting rules that depart from consensus decision-making raise significant legitimacy concerns and in this case they have grown pronounced as the UNSC's mandate has expanded and it has begun to exert quasi-legislative authority. Among Multilateral Environmental Agreements (MEAs), the Montréal protocol is the only one thus far to include a non-consensual mechanism, namely its adjustment procedure which allows a qualified majority to tighten control measures for limiting ozone depleting substances.⁶⁶

To the extent that international decision-making processes such as the UNSC and the Montréal Protocol are created by treaties, they ultimately rest on state consent. In this case they consent not to specific treaty obligations but to an ongoing system of governance. However, these examples illustrate that

⁶⁴ *Ibid* at 10

⁶⁵ *Ibid* at 11

⁶⁶ *ibid*

general consent, even in combination with legal legitimacy, may not be enough to insulate a governance system from criticism based on legitimacy grounds. This is linked to the greater surrender of autonomy associated with general consent since it is not sure what particular constraints may be imposed on it in the future. Thus, general consent may be enough to legitimize narrowly circumscribed decision-making mechanisms, yet falls short of providing global governance with the authority needed to deal with the dynamic challenges facing it.⁶⁷

Secondly, as IEL increasingly governs the conduct of non-state actors, state consent is losing its legitimating force, especially when given by the executive branch without appropriate controls by legislature. As it become increasingly commonplace for IEL to address subjects traditionally addressed by domestic law, the more it should be subject to the same standards of legitimacy. Thus IEL increasingly resembles domestic law.⁶⁸

Principles in Environmental law:

Internationally, the imperative to balance socio-economic factors with protection of the natural environment has seen the rise of several directing principles that embody the various approaches to protecting the environment.⁶⁹ Post-modern law has seen a move away from the traditional, rigidly structured approach to more dynamic, pragmatic methods aimed at balancing the ever-changing nature of social, economic and environmental practices and their conflicting interests.

IEL attempts to initiate the required flexibility and enhance its legitimacy through the development of several dynamic, pragmatic principles. It does so primarily through three guiding principles, namely the polluter pays, preventative and precautionary principles, which regulate and guide the

⁶⁷ *ibid*

⁶⁸ *ibid*

⁶⁹ N de Sadeleer *Environmental Principles: From political slogans to legal rules* (Oxford: Oxford University Press 2002) at 23

discretionary powers of decision makers.⁷⁰ As the primary principles of environmental law they offer a means of streamlining and coordinating the corpus of IEL to resemble a rules-based approach similar to the WTO's regime.

Modern law was characterised by a reactive nature and this mind frame is most clearly enunciated in the "polluter pays principle" that places the burden of rehabilitation squarely on the shoulders of the parties guilty of causing the damage.⁷¹ While a major step forward, shifting the burden from society at large, this principle is deeply flawed as it does not seek to avert damage, but rather seek to remedy damage that has already been caused.⁷² An added difficulty is the lack of scientific authority to quantify the damage and attempt to attribute the damage, or part thereof, to a party.⁷³

The preventative principle is geared towards the prohibition or control of a potentially damaging activity and involves such regimes as permitting and the use of the best available technologies. However, this principle is based heavily on acceptable thresholds that legitimise a level of degradation⁷⁴ and places a heavy burden on science for identifying acceptable thresholds.⁷⁵ It is also being diluted by the diversity of legal instruments that have arisen in its name. As a result of this uncertainty, the preventative principle needs to have its scope more precisely defined to increase its efficiency and decrease its fragmentary effects. The value of the preventative principle lies in its anticipatory nature that requires actors to report on, and take actions to minimize or eliminate, possible damage. This signals a fundamental shift in the approach to environmental law as it highlights the reflex towards security displayed by today's laws.⁷⁶

⁷⁰ *ibid* at 254

⁷¹ *ibid* at 59

⁷² *ibid* at 252

⁷³ *ibid*

⁷⁴ *ibid* at 254

⁷⁵ J Glazewski *Environmental law in South Africa* (Durban, South Africa: Lexisnexus Butterworths 2000)

⁷⁶ de Sadeleer *op cit* 69 at 255

Some exponents of the law argue that the preventative principle can only be used in conjunction with the precautionary principle, which limits its effects by introducing another layer of obligations on decision makers.⁷⁷ The precautionary principle seeks to prevent development in the face of scientific uncertainty and close loopholes in the law as laid out by the preventative principle.⁷⁸ The precautionary principle is becoming the primary principle of IEL with increased realisation that current environmental problems place a heavy burden on the scientific community to formulate the standards required by more reactionary law.

The IEL regime is dynamic and another weapon has been added to its armoury in the war for primacy. In the time since the Rio Summit and the declaration of Agenda 21, the concept sustainable development has taken grip on environmentalists' minds and serves as a framework to balance economic and environmental concerns. It has gained credence with the more economically minded through the realisation that unsustainable development must eventually collapse.⁷⁹

The increasingly influential norm of sustainable development and its acceptance by the international community is expressed in a multitude of declarations and has penetrated many multilateral treaties.⁸⁰ The ICJ expressly referred to the concept in the Gabcikovo-Nagymaros case when it stated that the '*... need to reconcile development with protection of the environment is aptly expressed in the concept of sustainable development...*'⁸¹

According to the International Law Association (ILA) Committee on Legal Aspects of Sustainable Development: '*... sustainable development has*

⁷⁷ *ibid* at 221

⁷⁸ *ibid*

⁷⁹ AT Wolf, 'Towards an interdisciplinary approach to water basin analysis and the resolution of international water disputes' (1995) available at www.unu.edu/unupress/unupbooks/80859e/80859E0c.htm (accessed October 2007)

⁸⁰ Hilderling *op cit* 7 at 33

⁸¹ Gabcikovo-Nagymaros Project (Hungary v Slovakia) [1997] ICJ Rep 1997/1

*become an established objective of the international community and a concept with some degree of normative status in international law...*⁸²

Sustainability may serve as a stepping stone in guiding environmental ethics away from constraints imposed by tradition utilitarian doctrine and has a positive effect on legitimacy as it has successfully penetrated popular culture.⁸³ Its great utility is derived from the fact that it seeks to incorporate all considerations in a holistic manner rather than through a single viewpoint such as freshwater ecosystem protection or economic gain.⁸⁴ Yet, sustainable development institutions are generally weak in comparison to trade bodies and it is doubtful whether it alone can succeed in promoting the IEL regime to a status equal to the trade regimes.⁸⁵

Adding coherence to global environmental governance:

The High-level Panel on United Nations System-wide Coherence has outlined the approach to achieving the desired legitimacy and primacy for IEL by making several recommendations with regard to international environmental governance. They recommend:

'...the United Nations Environment Programme be upgraded and given real authority as the environmental policy pillar of the United Nations system...'

'...that international environmental governance be strengthened and made more coherent in order to improve the effectiveness...'

'...that United Nations entities cooperate more effectively on a thematic basis and through partnerships...'

⁸² *ibid*

⁸³ *ibid*

⁸⁴ 'Water policy and strategy of UNEP' available at www.unep.org/Themes/freshwater/Documents/Water_and_Cities_Final.pdf (accessed December 2007) at 27

⁸⁵ 'Environment and Security—The Role of the United Nations' (2004) The United Nations Foundation Roundtable Conference available at www.wilsoncenter.org/news/docs/ACF64A.pdf (accessed October 2007) at 3

These three recommendations help to make sure that the UN helps countries mainstream environment in their strategies and actions, to elevate the status of sustainable development in the UN institutional architecture and in country activities, and to achieve the needed balance among the three pillars, that is economic, social and environmental, of sustainable development.⁸⁶ Thus they form the framework of any future IEL regime and three of the main areas of improvement as we move towards this period of intensifying change. If properly carried out, these three objectives will greatly aid the development of legitimacy of IEL.

It is important to strengthen UNEP's capacity to cooperate with other UN entities and the wider public. Equally important is their ability to coordinate the international agreements that fall under its jurisdiction. Achieving these ends would go a long way to enabling the UN system to integrate environmental imperatives into related fields such as development, trade and health.⁸⁷ The establishment of joint institutions with other UN agencies, coupled with greater involvement and technical oversight in regional subgroups along with emphasis of the "one UN" program would help UNEP secure its role in the international system and its relations with other entities.⁸⁸

Recent years have seen increased recognition of the bio complexity of ecosystems and the myriad roles that water plays there⁸⁹ and consequently more integrated mechanisms and solutions. However, through the 1990s, MEAs maintained their somewhat sectoral approach in that they did not implement specifically sustainable approaches but rather focused on conservation or preservation of their area of concern.⁹⁰

⁸⁶ United Nations General Assembly 'Report of the High-level Panel on United Nations System-wide Coherence in the areas of development, humanitarian assistance and the environment' A/61/583 (2006) available at

www.un-ngls.org/site/IMG/pdf/A-61-836_english.pdf (accessed October 2007) at 13

⁸⁷ 'Informal Consultative Process on the Institutional Framework for the United Nations' Environmental Activities - Co-Chairs' Options Paper' (2007) available at www.centerforunreform.org/system/files/File0001.PDF (accessed February 2008)

⁸⁸ *ibid*

⁸⁹ Hilderling *op cit* 7 at 35

⁹⁰ 'Negotiating and Implementing Multilateral Environmental Agreements: A Manual for Non Governmental Organisations' (2003) UNEP Division of Environmental Law and Conventions available at www.unep.org/delc/docs/meas%20final.pdf (accessed January 2008) at 8

This approach began to change with the United Nations Conference on Environment and Development, which was formulated in 1992 and explicitly recognized the linkages between societal and environmental factors and the prerequisite of a healthy environment for economic growth.⁹¹ More recent MEAs have sought to incorporate these crucial ideas and all modern MEAs, like all other multilateral agreements, must conform to the principles of public international law.⁹²

The process has confirmed that the broadest support rests with improving IEL in terms of efficiency, effectiveness and impact in order to build a system which has authority and credibility. Such a system would contribute to a greatly enhanced capacity of the multilateral system to respond to the increasing challenges of environmental degradation.⁹³ Increasing the status of water issues could provide a fairly uncontroversial pathway to reform of IEL. It is even possible that water legislation could provide a link between terrestrial and marine issues and thus access to the strong International Tribunal for the Law Of the Sea. Furthermore, there is common agreement that water health forms an important component of conservation and could help provide a convergent force to IEL. Recognising the importance of this sector could have far reaching consequences for the protection of the natural environment and further the objectives, and hence legitimacy, of UNEP.

The UN tackles water affairs in a disjointed fashion, often failing to properly incorporate water issues into the security agenda and has generally ceded transboundary water negotiations to the World Bank.⁹⁴ Over 20 different units of the UN system deal with some aspect of water issues and the lack of coordination remains a major problem in the UN. While such a multi-lensed view may enable a multidimensional approach the UN could strengthen its central role in security by moving water from a technical issue to a security

⁹¹ *ibid*

⁹² *Ibid* at 10

⁹³ 'Informal Consultative Process on the Institutional Framework for the United Nations' *op cit* 87 at 13

⁹⁴ 'Environment and security' *op cit* 85 at 5

concern.⁹⁵ It needs to properly integrate water issues across its agencies by establishing water as a human right and appointing a special rapporteur to increase coordination.⁹⁶

Fragmentation manifests itself in differing ways but is especially apparent in areas such as the relationship between scientific assessment and policy advice, lack of a single, recognized platform to offer policy advice on environmental issues at the global level, lack of an effective and authoritative environmental pillar within the UN system, lack of coordination among UN agencies, heavy burden on Member States, particularly in terms of reporting obligations and Conference Of the Parties meetings as well as poor implementation of prior decisions and existing commitments.

A global fund for water could be a locus for aid and coordination. Further, a forum for technology exchange, peaceful settlement of disputes and conflict transformation would greatly strengthen the UN's role in international society. The UN needs to develop an integrated, systematic approach to preventative water diplomacy based on cooperation with major players such as the World Bank and Global Environmental facility principles to bolster early warning systems, enhance institutional capacity and promote cooperation.⁹⁷

The degree of centralization necessary to achieve environmental imperatives remains the subject of great and so far unresolved debate.⁹⁸ Decentralized governance systems take strength from each particular situation's requirement of a unique and specialized solution.⁹⁹ Thus in regions of high heterogeneity, centralization is suboptimal but some models rely on too great an expectation of a jurisdiction's uniformity.¹⁰⁰

⁹⁵ *ibid*

⁹⁶ *ibid*

⁹⁷ *ibid*

⁹⁸ MA Garcia-Valiñas 'Decentralization and environment: an application to water policies' (2005) available at <http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm> (accessed February 2008) at 1

⁹⁹ *ibid* at 2

¹⁰⁰ *ibid*

From the opposite perspective it is recognised that sub central government is incapable of formulating effective and coherent policy, as well as creating 'destructive interjurisdictional competition' which can lead to depletion of environmental quality.¹⁰¹ Thus it seems that decentralization can dominate centralization when there are not significant differences between the populations of jurisdictions and a low initial level of environmental degradation. However this seems to ignore the fact that environmental policy and actions are highly interconnected and can produce widely varying and far reaching consequences in jurisdictions other than those they occur in. This phenomenon seems to require a strong central policy generation mechanism that can determine the most suitable standards over a greater domain.¹⁰²

The decentralized architecture of the UN was meant to share power between the secretariat and its myriad agencies to promote participatory and consultative approaches.¹⁰³ Yet this multimodal power division has created turf wars and duplication of efforts as agencies work at cross purposes to each other and fail to maintain effective coordination. In fact there is rarely clarity of purpose or unity of structure as even the core functions of the UN are hamstrung by proliferation of decision makers and administrators.¹⁰⁴

The UN has committed itself to aiding nations without the essential capacity to develop its governance infrastructure. Government's requests for aid in technology support and capacity building will be undertaken through cooperation with more developed nations and specialized UN agencies.¹⁰⁵ National strategies must concentrate on poverty reduction through sustainable management and increased dialogue between local and national actors. On the regional level, increased energy needs to be channelled through regional organisations to facilitate their role of oversight and catalyzing cooperational relationships.¹⁰⁶ Shared vulnerabilities constitute common interests and an

¹⁰¹ *ibid* at 4

¹⁰² *Ibid* at 5

¹⁰³ J Paul and C Nahory *op cit* 50

¹⁰⁴ *ibid*

¹⁰⁵ Water policy and strategy of UNEP *op cit* 84 at 28

¹⁰⁶ *ibid*

opportunity for cooperation.¹⁰⁷ Increased interdependency can augment capacity and shared benefits illustrate the advantages of cooperation over conflict.¹⁰⁸ It is applicable that cooperation between jurisdictions has the potential to surpass centralization as the optimal solution for disseminating environmental equity and justice.¹⁰⁹

The requirement of cooperation is one of the primary customary law principles of water law and is neatly enunciated through the principle of “common but differentiated measures” that ensures all states take on equal responsibility for managing water resources.¹¹⁰ This objective is threatened by the fact that institutions on the ground remain limited in their ability to properly collect and manage data. Mechanisms need to be put in place to aid the proper development of organs supporting the processes of data collection and processing that ensure a legitimate level of scientific understanding is reached.¹¹¹ Crucial to this is the creation of opportunities to enhance technology and information exchange and encourage the flow of data into a pool of institutionalised knowledge.¹¹²

Conclusion:

Legitimacy is an increasingly important issue in international law as the UN strives to exert influence over a greater number of actors in the international arena. Yet at this crucial time, the UN has failed to convince people that it is the legitimate organization to drive reform of the world order. There is hope for the organisation, however, as it can greatly enhance its reputation by fulfilling its commitment to a rules-based and cooperative world order.

¹⁰⁷ ‘Environment and security’ op cit 85 at 5

¹⁰⁸ *ibid*

¹⁰⁹ Garcia-Valiñas op cit 98 at 5

¹¹⁰ LJ Kotze, ‘Improving Unsustainable Environmental governance in South Africa: The case for holistic Governance’ (2006) available at www.puk.ac.za/opencms/export/PUK/html/fakulteite/regte/per/issues/2006x1x_Kotze_art.pdf (accessed March 2007)

¹¹¹ AR Turton. ‘Transboundary River Management in Southern Africa’ (2003) available at researchspace.csir.co.za/dspace/handle/10204/778 (accessed June 2007) at 6

¹¹² *ibid*

There remains much to be desired in the quest for legitimacy in IEL and the UN. There needs to be a conscious shift towards objective driven reform and the UN must concentrate on centralizing cooperation and securing stability through mechanisms that support both human and state security. It is vital that international law annexes parts of domestic law to properly regulate transboundary consequences.

Water is central to developing legitimacy in IEL as it directly aids cooperation and coherency. It is possible that it could have a positive effect the transformation of UNEP, allowing it to properly fulfill its role in global economy and enhance its legitimacy. The actions global governance takes over water will be crucial in determining whether it gets the backing of both developed and developing nations and their populations.

3. Balancing global priorities:

It seems as if the world is heading towards a period of enormous physical and social change greatly influenced by the increased strain on the environment.¹¹³ Competition for scarce resources, increased humanitarian crises and destabilization of weak states are just a few of the security consequences of environmental degradation.¹¹⁴

Post World War Europe held an exclusively “economically-nuanced” approach to law which saw an economic focus filter down to other branches of law. However, this approach was soon seen to be deficient as environment degradation ran rampant. The need for environmental control was soon recognized and environmental law was born.¹¹⁵

Serious warning about the states of the worlds environment, such as the Brundtland commission of 1987, coupled with actual disasters such as the

¹¹³ ‘Environment and security’ op cit 85 at 5

¹¹⁴ ibid

¹¹⁵ PC Storm ‘Environmental Laws: an introduction’ (2000) available at www.iuscomp.org/gla/literature/envirmt.htm (accessed June 2007)

huge impact caused by the Exxon Valdez incident have prompted greater attention to be paid to environmental issues and the formulation of a plethora of treaties in multiple areas of environmental law.¹¹⁶

However, the magnitude of environmental problems has not been matched by international policy¹¹⁷ and the multilateral trading system has thus far failed developing nations. By placing undue emphasis on freeness at the expense of fairness, they have refused to tackle global inequities with any kind of conviction.¹¹⁸

In 1994 the world's governments created the WTO and a body of new trade laws backed by a powerful enforcement mechanism.¹¹⁹ Promotion of free trade and the liberalization of the market has been the objective of international trade law since the inception of the General Agreement on Tariffs and Trade (GATT) in 1947.¹²⁰ The GATT's constitutional strength, based on the principles of national treatment and most favoured nation,¹²¹ allows it to encourage free trade often at the expense of fairness. The WTO is truly rules-based as its primary principles drive administration of the body and are able to triumph over any norm in their path.

As a result, the UN office for the high commissioner for human rights has identified "apparent conflicts" between the WTO agricultural and intellectual property rights agreements and the human rights to food, health and self determination as well as potential future conflicts between the future agreement on trade in services and the human right to food and water.¹²²

The legitimacy of WTO dominance:

¹¹⁶ Hilderling op cit 7 at 41

¹¹⁷ 'Environment and security' op cit 85 at 5

¹¹⁸ Landsberg op cit 49

¹¹⁹ Dawkins op cit 37 at 1

¹²⁰ P Birnie and A Boyle *International Law and the Environment* (Oxford: Oxford University Press 2002) at 703

¹²¹ *ibid*

¹²² Dawkins op cit 37 at 2

Currently, global governance is divided between two systems, the United Nations system comprised of the UN secretariat and its specialized agencies, and the Bretton woods system, comprised of the World Bank, WTO and International Monetary Fund. For all its deficiencies, the UN system has generally aligned itself the cause of establishing human rights to prioritize human development and sustainable development. The Bretton woods institutions have consistently aligned with the interests of money, banks and global corporations.¹²³

The United Nations and Bretton Woods institutions were established with the intention that they would work together in a complementary way. In reality, the Bretton woods institutions have separated themselves entirely from the UN system and consolidated their stranglehold on global financial matters, virtually starving the UN of resources. Issues of agricultural subsidies, foreign debt and conflict with environmental agreements remain far from resolved and the MDGS remain a pipe dream unless significant, meaningful change occurs and allows the rules based society to take hold.¹²⁴

Often, domestic jurisdiction for development and planning is overwhelmed by international policy formulated by the WTO, World Bank and international monetary fund.¹²⁵ A balance must be struck between healthy competition and inefficient overlap and unfilled gaps and the Bretton Woods institutions need to work more closely with the UN to avoid unnecessary duplication and build on their strengths within their competencies.¹²⁶

The great strength of the WTO's enforcement mechanism has made trade the de facto priority in practice.¹²⁷ This affords the WTO a disproportionate amount of power by allowing it to impose sanctions or duties on any country

¹²³ L Wallach and M Sforza 'Five years of reasons to resist corporate globalization' (1999) Seven Stories Press available at http://www.thirdworldtraveler.com/WTO_MAI/WTO_FiveYears.html (accessed february 2008)

¹²⁴ Landsberg op cit 49

¹²⁵ ibid

¹²⁶ 'Report of the High-level Panel on United Nations System-wide Coherence in the areas of development, humanitarian assistance and the environment' op cit 86 at

¹²⁷ Dawkins op cit 37 at 3

that refuses to alter laws that the WTO deems a restriction to trade.¹²⁸ Among those laws that are vulnerable to challenge as “barriers to trade” are those promoting the employment of women and entrepreneurial efforts, those subsidizing generic medicine and public services and any that favour indigenous skills or resources.¹²⁹ The ability of the principles to trump most other rules has placed them in a position of primacy and carry more *de facto* force than even the morally forceful yet substantially weak *jus cogens*.¹³⁰

An increasingly important issue is whether the WTO dispute panel is the appropriate mechanisms for deciding the legality of trade measures contained in Multilateral Environmental Agreements (MEAs). Legitimacy is once again an important issue here as it is central in the determination of whether the WTO holds the authority to review measures adopted pursuant to environmental objectives.¹³¹

WTO members have granted compulsory jurisdiction to the WTO “judiciary” *ex ante* and on a claim specific basis. The importance of this compulsory jurisdiction cannot be overestimated as it bestows an all affecting character on the norms and principles of the WTO. Even disputes with a relatively limited trade aspect can be brought before the WTO. These often extend to trade aspects of human rights, environmental or territorial disputes.¹³²

To retain this authority the WTO panels provide reasons for their decisions aimed at persuading participating entities that their decisions are correct.¹³³ Even when the losing side does not accept a panel’s legitimacy and must be compelled to obey, it is critical that the panel retains its legitimacy in the view of other parties since this is what justifies the imposition of trade measures by the winning party. In this way, the WTO enforcement system distinguishes

¹²⁸ *ibid*

¹²⁹ *ibid*

¹³⁰ Wallach and Sforza *op cit* 123

¹³¹ Bodansky *op cit* 6 at 1

¹³² Pauwelyn *op cit* 22 at

¹³³ Bodansky *op cit* 6 at 5

itself from unilateral action and one of the key reasons why states accept the dispute resolution process as legitimate.¹³⁴

WTO environmental policy:

The impact of the WTO on the global environment has been the focus of considerable debate. The WTO has often be accused of neglecting environmental consequences in its policies, yet it has not been conclusively proven that trade liberalization affects negatively affects the environment. Trade liberalization may even have benefits for fair allocation and efficient use of resources. In fact, increased competition may help fight poverty through trade expansion and an increase in the availability of environmental services.¹³⁵

Yet the WTO's and its member's environmental regimes are often in conflict and trade interests have generally trumped advances in domestic environmental legislation.¹³⁶ International policy does not seek to place a higher priority on free trade than the environment but does not endorse any general exception for environmental protection either.¹³⁷

The WTO appellate body is dynamic and had begun to evolve a slightly more environmentally nuanced approach. This was evidenced by its changing attitude as it developed an environmental jurisprudence.¹³⁸ The two cases aiming to protect dolphins from tuna drift nets represented the first tentative steps of the multilateral trading system to come to terms with environmental protection¹³⁹ by adhering to Art 31 of the Vienna Convention on the Law of Treaty and interpreting the case materials within the context of existing MEAs.

¹³⁴ *ibid*

¹³⁵ RV Bartlett, PA Kurian and M Malik *International Organizations and Environmental Policy* (Oxford: Greenword Press 1995) at 33

¹³⁶ 'Environment and security' *op cit* 85 at 5

¹³⁷ Birnie & Boyle *op cit* 120 at 697

¹³⁸ *ibid*

¹³⁹ *ibid*

Indeed, the GATT Art XX (b) seems to be instituting some form of environmental justice by allowing activity "...*necessary to protect human, animal or plant life or health...*"¹⁴⁰ Furthermore, Art XX (g) recognizes the validity of protections "...*relating to the conservation of exhaustible natural resources...*" Yet believing that art XX of GATT can protect the environment and natural resources could be illusory.¹⁴¹ Relying on Art XX to protect the environment is proving difficult as the burden of proof rests heavily on countries using it as a defence.

Much of the problem lies with the chapeau of Art XX. It allows that trade policy measures for environmental purposes shall not constitute "... (i) *arbitrary or unjustified discrimination* (ii) *disguised restriction on international trade...*" this allows it to challenge almost any protectionist regulations and therefore promotes the foremost principles of the international trading system.¹⁴² The requirement of non-discrimination between products has challenged women and children rights and has now begun to dismantle environmental policy.

Several recent WTO rulings have accelerated this trend and suggest that precedents have been set up against environmental protection. The laws protecting sea turtles from shrimp nets and dolphins from drift nets have both been successfully challenged. Worryingly, Indonesia was forced to lift its ban on the export of raw logs. These rulings bode badly for a nation's right to protect its environment and may have repercussions set to reverberate through all natural resource sectors.¹⁴³

In each of these cases, the WTO appellate body has upheld commercial imperatives at the expense of environmental protection. The WTO has refused to recognize the authority of MEAs, making it inimical to environmental laws.¹⁴⁴

¹⁴⁰ GATT art XX

¹⁴¹ Riana op cit 5

¹⁴² Birnie & Boyle op cit 120 at 697

¹⁴³ Riana op cit 5

¹⁴⁴ Pauwelyn op cit 22 at 566

Trade law's dominance of environmental principles:

Another recently settled case could create a legal precedent of historic proportions. The United States asked the WTO's dispute settlement body to determine whether EU regulation of genetically engineered food and seed imports are an illegal barrier to trade relying on the idea that they are not scientifically justified.¹⁴⁵

Environmental groups submitted an *amicus curiae* brief pointing out that the appellate body had previously acknowledged the importance of interpreting law in the context of 'the contemporary concerns of the community of nations' reflected in this case by the Cartagena Protocol on Biosafety.¹⁴⁶ Ratified by 116 national governments throughout the world, yet not the United States, the agreement affirms the rights of nations to regulate imports of genetically modified organisms based on the "precautionary principle" where there is insufficient scientific data to determine risks.¹⁴⁷

The WTO confirmation of the US stance ignores the Cartagena Protocol and the precautionary principle, setting the precedent for the WTO appellate body to consider trade disputes in isolation from international law. Many other MEAs would be subject to strict tests for impacts on free trade, effectively ending their utility as tools for environmental protection.¹⁴⁸ Indeed it could be applied to any multilateral treaty affected under the UN system and used to subordinate this entire body of international law to those promoting commercial trade. As a result no international treaty effecting the volume or profitability of free trade could prevail in this new hierarchy of international law.¹⁴⁹

¹⁴⁵ Dawkins op cit 37 at 3

¹⁴⁶ *ibid*

¹⁴⁷ *Ibid*

¹⁴⁸ *ibid*

¹⁴⁹ *ibid*

Environmental concerns have for too long been compartmentalized in isolation from economic development priorities.¹⁵⁰ It is time to recognise that global environmental degradation has far-reaching economic and social implications that need to be addressed through improved integration of the international system. Due to the global nature of the issues concerned, coordinated multilateral action is required to promote sustainable development and achieve the targets set by the Millenium Development Goals (MDGs).¹⁵¹

The Commodification and globalisation of water resources:

Water is an increasingly crucial battleground in the fight between environmental imperatives and commercial gain as it is an area where corporations add value to their operation by withdrawing undervalued environmental services. Yet, we live in a time when everything is for sale and even those areas once considered sacred such as health, education and access to water are not immune from gaining an economic value.¹⁵² The value of water stems from its scarcity and as demand grows, water is increasingly commodified and privatized. International trade agreements are increasingly influential in valuation of natural resources and resolution of environmental disputes.¹⁵³

There is a sickening yet consistent solution to the universal problems of the world today – globalisation. So why should water remain confined to local regions or within national boundaries? The corporate solution is simple, let government hand over the right to water to them and they will transfer water in bulk across nations and continents. If in the process, the poor and needy are further deprived at the expense of industry and the rich, corporations will make profit.¹⁵⁴

¹⁵⁰ ‘Report of the High-level Panel on United Nations System-wide Coherence in the areas of development, humanitarian assistance and the environment’ op cit 86 at 5

¹⁵¹ *ibid*

¹⁵² Riana op cit 5

¹⁵³ Hildering op cit 7 at 93

¹⁵⁴ Riana op cit 5

One form of privatized water familiar in even developing countries is bottled water. The ability of municipalities to provide quality drinking water is diminishing and this lack of capacity is opening the market to private packaged suppliers. Worldwide, the bottled water industry is one of the fastest growing and least regulated with close to 20 billion litres traded. As the world's freshwater system becomes evermore degraded, those who can afford it are opting for a bottled supply, even though it is subject to less rigorous testing than tap water!¹⁵⁵

Beside the established giants of the bottled water industry such as Perrier, Evian and La Croix, the big soft drink companies have entered the market in force and it is predicted that their water lines will surpass their soft drink lines within a decade. Yet supply remains a problem for these companies as they engage in a constant search for new resources. Farmland across the globe is being sought as access to well points, before being drained and sold on.¹⁵⁶

The quantities involved in the bottled water industry shrink when compared to the bulk water trade. Interbasin transfer by diversion, pipelines and even super tankers accounts for a large proportion of trade in water but are likely to cause tensions. This was the case with a plan to ship water across the Mediterranean as political protests halted the project.¹⁵⁷

The European Commission is looking at establishing a European Water Network to facilitate the flow of alpine water from Austria to Spain or Greece, rather than into Vienna's reservoirs. Similarly, the demands of England may soon be satiated by the import of water from Scotland, by tanker and by pipeline.¹⁵⁸

¹⁵⁵ *ibid*

¹⁵⁶ *ibid*

¹⁵⁷ *ibid*

¹⁵⁸ *ibid*

The globalisation debate between market forces and social forces continues to play out on the stage of water resource management.¹⁵⁹ Very little of the recent attention to globalisation and the WTO has centred on water resources but there is a definite water component to these trends. One of the most profound is the shift of development funds from global and regional development banks such as the World Bank and the Asia development bank to private multinationals, such as Bechtel, Vivendi and Ondeo.¹⁶⁰

Development banks have, over the years been susceptible to public pressures and ethics and thus have developed procedures for evaluating social and environmental impact of projects, incorporating them into decision making structures. On all international rivers, development bank policies generally prohibit any development without the consent of all riparians thus opening doors to negotiation and cooperation.¹⁶¹

Private enterprises have no such restrictions. Nations eager to develop water resources increasingly turn to private capital to circumvent public ethics. The most controversial projects of today – turkey's GAP project, India's Narmada River Project, and China's three gorge dam - are all proceeding through the studied avoidance of development banks and their mores.¹⁶²

In industries ranging from wastewater services to bottled water to bulk export, corporations are jumping in to exploit water resources. Two French transnationals, Vivendi SA trading as Generale des Eaux and Ondeo, formerly Suez Lyonnaise des Eaux, valued at \$56 billion, dominate the world of privatized water. Between them they own or have controlling interests in water companies in 120 countries. Enron's recently formed water division, Azurix, values the privatised global water market at \$300 billion while the World Bank estimates that the value is closer to \$800 billion.

¹⁵⁹ AT Wolf, 'Summary: The History and Future of International River Basins' (2003) UNESCO Technical Documents in Hydrology No. 6 available at unesdoc.unesco.org/images/0013/001332/133286e.pdf (Accessed Feb 2008) at 14

¹⁶⁰ *ibid*

¹⁶¹ *ibid*

¹⁶² *ibid*

With close to \$90 billion in annual revenues, the US is the world's largest water market. Until now, small scale public-sector operations dominated the market but Vivendi is poised to promote the massive privatization of the American market. Using trade agreements such as North American Free Trade Agreement (NAFTA) or the GATT, corporations are increasing their investments in water trade. Indeed the amount of money involved has awoken MultiNational Corporations' (MNCs) interest and there is blood in the water as the true war over water heats up.¹⁶³

The commodification of water resources has taken place over the last twenty years and in this period; hardly a global water policy meeting has passed without a resolution declaring water as an economic good. Yet the future is unclear. If water is a commodity and WTO rules prevent obstacles to free trade, then will countries be forced to sell their water? A California company is challenging British Columbia over just such an issue under NAFTA rules.¹⁶⁴

Exchange of water does not in itself constitute trade and the full commodification of water is dependent on whether payments are made for delivery of the water or the water itself. If action is to be considered a service rather than a good, the absence of strict ownership removes many of the legal difficulties of bulk transfer.¹⁶⁵ The technology that enables bulk transfer has facilitated a global trade in water and changes in state regulation and controls have opened the door to the profitable water trade.¹⁶⁶

The trade regulatory regimes of the WTO and NAFTA could have staggering impacts if water is to be fully commodified, yet they should not be allowed to undermine the effects of IWL or other relevant fields of law.¹⁶⁷ Until recently, water was thought of as a public asset managed through government. Thus dealing with water as a tradable commodity is a relatively recent development

¹⁶³ Riana op cit 5

¹⁶⁴ Wolf (2003) op cit at 14

¹⁶⁵ Riana op cit 5

¹⁶⁶ *ibid*

¹⁶⁷ *ibid*

and has gained wide support only in the private sector and by governments.¹⁶⁸

A large part of the opposition to the water trade has come from NGOs and the broader international community which voice concerns over who is going to buy water for the poor and the environment. In Canada, the fear is not only that granting permission for large scale transfer will damage ecosystems but also that allowing one contract will make it impossible to close the tap because of NAFTA and WTO rules. The WTO is likely to have a major role in deciding whether or not or to what extent water will be dealt with as a tradable commodity. Once water is established as a commodity, free trade would prohibit any protective measures for social or environmental reasons.¹⁶⁹

The influence of NAFTA and WTO:

The possibility of export of the great lakes water has awoken the world to the imminence of large scale water trading. Although the governments involved acted to prevent large scale trading, future public protests against treating a public resource like a tradable commodity will need to target multilateral trade institutions. These institutions restrict new measures protecting the environment and systematically dismantle environmental protection measures in favour of free trade.¹⁷⁰

In its chapter 3, NAFTA clearly outlines for the future of water trading by establishing obligations regarding trade in goods. It uses the GATT definition of a good including '*...waters, including natural or artificial...*' and adds in an explanatory note that '*...ordinary natural water of all kinds (other than sea water) is included...*'¹⁷¹ Similarly, Article XI of WTO imposes a blanket prohibition against the use of quantitative export controls on any product destined for the territory of any contracting party. This means quotas or

¹⁶⁸ *ibid*

¹⁶⁹ M Barlow 'Water Incorporated: The Commodification Of The World's Water' (2002) *Earth Island Journal* available at www.globalpolicy.org/globaliz/special/2002/0305water.htm (accessed may 2008)

¹⁷⁰ *ibid*

¹⁷¹ NAFTA Chapter 3

restrictions on the export of water imposed for environmental purposes could be challenged as a form of protectionism. It would therefore appear that, in the reality of WTO and NAFTA rules, water export controls are prohibited. While ethics and common sense demand that water in its natural state should not be considered a tradable good, international law is increasingly commodifying water. A large portion of water must be considered as already having entered commerce through its myriad of uses, industrial, agricultural and individual.¹⁷²

The status of water under these two regimes remains unclear as it could fall under the definition of both goods and services under WTO rules. Yet the tariff list includes both bottled water and natural water.¹⁷³ In cases of critical shortages, the exporting nation is allowed to temporarily exclude water from restrictions on trade. Art XX, on the basis of the Tuna-Dolphin cases and the Shrimp-Turtles case, could well provide for the for environmental protection measures to be set up for the water trade.¹⁷⁴

The General Agreement on Trade in Services (GATS) could further limit the possibilities to protect social and ecological interests in water. However the WTO, points out the fact that there are currently zero countries that have made a GATS commitment on water distribution and that such a commitment would not affect the rights of government to set standards for quality, safety, price or any other policy objectives.¹⁷⁵

NAFTA is a trade agreement between the US, Canada and Mexico and builds upon the principles of the GATT. It has the objective of eliminating trade barriers and further liberalisation of trade between the three countries.¹⁷⁶ NAFTA does not exempt water from its definitions and, like the WTO, mentions it on its tariff lists. However, the parties to NAFTA have explicitly stated that water is only covered by trade agreements if it has entered

¹⁷² Riana op cit 5

¹⁷³ ibid

¹⁷⁴ ibid

¹⁷⁵ ibid

¹⁷⁶ ibid

commerce and there is no obligation for the parties to begin trading water.

They declare:

*'...Water in its natural state in lakes, rivers, reservoirs, aquifers, waterbasins and the like is not a good or a product, is not traded, and therefore is not and never has been subject to the terms of any trade agreement...'*¹⁷⁷

As for legal measures to restrict water trading, ensuring that water in its 'natural state' should be treated as a non-tradable good is no longer feasible unless pressure is put to change the NAFTA and WTO provisions. It has been suggested that the best approach for preventing bulk water removals is the enactment of national legislations designed specifically for the purpose. This may not prevent corporations from attempting to buy water rights, but could insulate nations against investor claims.

Privatization and violence:

Until now, deprived populations have appealed to their governments for their share of water and its benefits. Yet, instead of radical reforms to address the staggering problems, government is increasingly likely to wash their hands of the problematic issue by handing control to large corporations.

The transfer of water system ownership and management from public authorities to MNCs is a new cause of water related tension that has surfaced in the last few years.¹⁷⁸ The WTO emphasis on privatization has opened traditionally subsidized local markets to the multinationals, driving higher prices for water than ever before. Profits from managing water are diverted away from local markets and indigenous management systems are

¹⁷⁷ 1993 Joint Statement by the Governments of Canada, Mexico and the United States available at http://www.greatlakesdirectory.org/zarticles/102402_great_lakes2.htm (accessed may 2008)

¹⁷⁸ Riana op cit 5

eradicated. Thus future water related violence is more likely to be against a multinational than an interstate war across borders.¹⁷⁹

The privatization process has been driven by a confluence of forces. Mounting costs and political liability of providing urban water services, increased pressure from the IMF to remove subsidies and other trade restrictive measures and the growing power of private corporations seeking to profit from the sale and related services have all contributed to privatization. When massive privatization occurs in the presence of poverty and inequality, the conditions of much of the developing world, it has the potential to result in instability. For countries unable to afford the resulting price increases, privatization is likely to result in hunger and related violence.¹⁸⁰

Events in Bolivia underscore these risks as the price of water rose dramatically in the wake of a massive privatization scheme. Water bills often equalled a quarter of a regular monthly income and the situation resulted in months of civil unrest culminating in April of 2000 when 30000 thousand citizens clashed violently with police. The government sent in the army to quell the protest but the conflict only truly abated once the system returned to public control.¹⁸¹

Yet despite these risks, international institutions such as the World Bank and the International Monetary Fund are constantly steering developing countries towards privatisation even when the benefits of such a move are questionable.¹⁸² As a result, there is an increasingly prevalent view that trade organisations such as the WTO and NAFTA are not the appropriate organisations to arrange the management of water. Integration of principles of sustainable development and those governing world trade will not occur in an international setting designed to further only commercial interests.¹⁸³

¹⁷⁹ Wolf (1998) op cit 1 at 14

¹⁸⁰ SL Postel and AT Wolf 'Dehydrating Conflict' (2001) Global policy forum available at www.globalpolicy.org/security/natres/water/2001/1001fpol.htm (Accessed January 2008)

¹⁸¹ *ibid*

¹⁸² Hilderling op cit 7 at 97

¹⁸³ *ibid*

Conclusion:

Past failures to appreciate the economic value of water has led to wasteful and even damaging uses and managing water as an economic good is an important way of achieving equitable and efficient use.¹⁸⁴ Water economics is about making the right choices about water resource development, conservation, allocation and overall management. Financial considerations are only part of the cost-benefit analysis and should not be the main one.¹⁸⁵

The importance of water law in reformulating policy imperatives has been repeatedly confirmed by world leaders as the realization that a new world water ethic is required to meet the needs and codify the rights of individuals, organisations and states.¹⁸⁶

We must recognize that the world is in the midst of a severe water crisis today. Entire societies and ecosystems are under threat. Governments are losing their right to protect their water heritage, or are willingly bartering them away. Most have not even begun to address the issues of privatization, commercialization and trade in water. Yet, while they leave their water resources unprotected by legislation, they are actively negotiating and signing international trade and investment agreements that supersede national laws. There is hope, yet it requires a radical rethinking of our values, priorities and political systems while it is still possible.

4. Emerging Conceptualizations of security:

While the maintenance of, and quest for, international peace and security remain pressing imperatives, the definitions and perception of these concepts have changed in fundamental ways.¹⁸⁷ The world is not only facing “hard” security issues such as interstate war, weapons of mass destruction and

¹⁸⁴ *ibid*

¹⁸⁵ *ibid*

¹⁸⁶ Wouters et al op cit 9 at 13

¹⁸⁷ Elliot op cit 24 at 3

armed aggression but also “human security” issues such as poverty hunger, underdevelopment and disease.¹⁸⁸ While world security remains the primary objective of the multilateral system, the UN is losing its capability to deal effectively with the emerging challenges in this field.

The problem is compounded by lack of consensus on the most pressing issues as, typically, the third world stresses the need for soft human security while the superpowers are more concerned with “hard threats” such as terrorism or Weapons of Mass Destruction. It must be emphasized that, especially in the developing world, there can be no hard security without human security.¹⁸⁹ More positively, soft security issues such as poverty and environmental depletion offer pathways for confronting and preventing conflict. However this would require greater integration of the UN approach¹⁹⁰ and many of these challenges can only be tackled through large scale cooperation and north-south partnerships.¹⁹¹

To adequately address these human security problems, the multilateral system needs to be substantially transformed and strengthened.¹⁹² The global security agenda needs to be refashioned to meet the north’s security concerns as well as the south’s development needs by promoting sustainable development.¹⁹³ Identification and eradication of the root causes of conflict must be strengthened as the idea of preventative diplomacy has gained credence in the last decade.¹⁹⁴ It must be reemphasized that preventative security is much less costly than coercive interventions in times of conflict and this should be used to help secure funds in a timely fashion.¹⁹⁵

The increased importance of Environmental security:

¹⁸⁸ *ibid*

¹⁸⁹ *ibid*

¹⁹⁰ ‘Environment and Security—The Role of the United Nations’ *op cit* 85 at 6

¹⁹¹ Landsberg *op cit* 49

¹⁹² *ibid*

¹⁹³ ‘Environment and security’ *op cit* 85 at 3

¹⁹⁴ *ibid*

¹⁹⁵ *ibid*

Environmental changes increasingly threaten global, national and human security.¹⁹⁶ Environmental issues such as land degradation, water scarcity and climate change can contribute directly to, or exacerbate conflict by compromising human security through increased exposure to poverty, disease and migration.¹⁹⁷ Extensive starvation caused by environmental factors has been implicated in the ongoing conflict between Ethiopia and Somalia as has competition over scarce land and water resources.¹⁹⁸ There is also a view that environmental scarcity had a major role in the intra state conflict and genocide in Rwanda.¹⁹⁹

The UNSG Millennium Report confirms environment as deep rooted cause when it identified a '*...real risk that resource depletion, especially freshwater scarcities, as well as severe forms of environmental degradation, may increase social and political tensions in unpredictable but potentially dangerous ways...*'²⁰⁰ it further pointed out that conflict prevention is the primary objective and responsibility of member states. The relationship between environmental degradation and international security is encapsulated in the phrase "environmental security"²⁰¹

Environmental problems threaten large number of states and are thus high on many nations' security agendas and some parties urge redefinition and demilitarizing of security paradigms.²⁰² The Brundtland report reiterates that '*... The whole notion of security as traditionally understood...must be expanded to include the growing impacts of environmental stress...*'²⁰³

¹⁹⁶ *ibid*

¹⁹⁷ *ibid*

¹⁹⁸ Elliot op cit 24 at 3

¹⁹⁹ *ibid*

²⁰⁰ *ibid* at 44

²⁰¹ *ibid*

²⁰² 'Environment and security' op cit 85 at 3

²⁰³ 'Report of the World Commission on Environment and Development' (Brundtland report) United Nations General Assembly A/RES/42/187 (1987) available at www.un.org/documents/ga/res/42/ares42-187.htm (accessed October 2007) at 19

There is considerable evidence that states increasingly view environmental threats as crucial to their broader security concerns.²⁰⁴ Both resource scarcity and abundance have been linked to security problems as inequity can be a major exacerbating factor.²⁰⁵ As early as 1991, the US National Security Strategy acknowledged that '*...the stress from...environmental challenges is...contributing to political conflict...*'²⁰⁶

Environmental security received greater attention as a result of Principle 25 of the Rio declaration which observes that '*...peace, development and environmental protection are interdependent and indivisible...*' Principle 26, echoing the injunctions of the UN Charter, requires that states should solve their environmental disputes peacefully.²⁰⁷

The environment, security and development sectors of international society speak different languages and so do not adequately communicate and coordinate their efforts. These three communities have too few incentives to integrate their activities and sustainable development has proven inadequate as a unifying factor. Environmental diplomacy promotes cooperation as a pathway to dialogue while mitigating security concerns creates opportunity for development.²⁰⁸

Crucially, non-military threats such as resource scarcity or environmental degradation have been shown to generate or intensify interstate hostility especially in the case of strategic resources such as freshwater.²⁰⁹ Water scarcity is a grave threat to global security and regional stability.²¹⁰ Despite the significant energies expended on water security by international law, including substantial treaty practice worldwide, water conflicts or disputes

²⁰⁴ Elliot op cit 24 at 3

²⁰⁵ 'Environment and security' op cit 85 at 4

²⁰⁶ Elliot op cit 24 at 3

²⁰⁷ *ibid*

²⁰⁸ 'Environment and security' op cit 85 at 4

²⁰⁹ Elliot op cit 24 at 5

²¹⁰ P Wouters 'The legal response to international water scarcity and water conflicts: The UN watercourses convention and beyond' available at <http://www.dundee.ac.uk/water/Documents/Publications/GYIL.pdf> (accessed October 2007)

persist globally.²¹¹ Lack of water resources in sufficient quantity and quality undercuts human health as well as impeding development and therefore has a hugely negative effect on state security.²¹²

Enduring tensions over water:

Throughout history, the rise and fall of civilizations have been tied to water availability and management. Several ancient societies have seen their prospects closely linked to the development and maintenance of water control systems.²¹³ Conflicts over water go back at least 5000 years. There are stories about water disputes in the myths and legends of Middle Eastern history that date back 3000 years. Yet, to this day, water remains a fundamental component in the conflict within the region.²¹⁴

This on-going conflict demonstrates in no uncertain terms that the importance of water governance is in no way diminished in modern times and may instead be entering an era of increased priority given the reality of the global water crisis.²¹⁵ While in most regions there is little historical evidence to support the supposed war over water, tensions over shared river basins can impede meaningful cooperation between states and further stifle development.²¹⁶

Water is used as both a weapon and a tool of warfare and, as such, provides ample opportunity for neighbours to disagree. Even otherwise friendly neighbours can struggle to find mutually agreeable terms for sharing transboundary waters. Disputes are endemic even in relatively humid climates where water is found in sufficient quantities to satisfy all needs. When shared waters are located in arid regions, conflicts intensify and threaten friendly relations. As a result, customary law has proven wholly inadequate for solving

²¹¹ *ibid*

²¹² 'Environment and security' *op cit* 85 at 5

²¹³ Hilderling *op cit* 7

²¹⁴ Riana *op cit* 5

²¹⁵ Hilderling *op cit* 7 at 39

²¹⁶ 'Environment and security' *op cit* 85 at 5

the problems posed in the management and governance of shared water resources.²¹⁷

At the individual level our requirements are fairly small but extremely inelastic. A consequence of this is if water needs are not catered for the government risks alienating or infuriating its population.²¹⁸ At the other end of the spectrum, water is central to the development of the new world order based on global recognition of salient human and environmental rights.²¹⁹

As a result, conflict over scarce water resources is likely to become an increasingly important issue in relations between states. While access to dwindling supplies is a common cause of conflict, ecological issues and regulation or alteration of flows can be equally disruptive. Water is both an environmental concern and a human resource necessity and has a correspondingly high priority on a global, regional and local level.²²⁰

The transboundary nature of water increases its potential to be a factor in interstate disputes. Conflict arises when two or more states compete for the same limited resources. Unequal divisions or distribution and dependency driven demand increase has the effect of exacerbating tensions over shared water. Water is by no means the only resource whose scarcity gives rise to security concerns but the fundamental importance of water coupled with its uneven distribution has lead to increased fears of its potential to spark widespread and violent conflict.²²¹

The increasing demands of humanity have lead to ever expanding engineering solutions and manipulation of freshwater flows. These storage points could become flashpoints for conflict as nations compete for control of resources or attempt to unilaterally damn flows. Repeatedly, water tension at

²¹⁷ Dellapenna op cit 20

²¹⁸ F Alvaro & C Vicente, Globalization and Water Resources Management: The changing value of water (2001)

²¹⁹ Ibid

²²⁰ Dellapenna op cit 20

²²¹ ibid

a basin wide level is shown to be the result of poor governance institutions or inequitable division of benefits.²²²

On the other hand, strengthened joint water management institutions have proven to be robust mechanisms for cooperation. Joint management is a prerequisite to sustainable development but requires partners to interact on an equal footing.²²³ Without this capacity, weaker riparians will remain concerned over possible threats to their development agenda and, by extension, their sovereignty.

The method of allocation of water rights differs from state to state due to changing priorities linked to different levels of social and economic development. Harmonization of approaches is essential to alleviate tensions at a basin level. However, given the necessity, urgency and logic of improved access to water and sanitation it is surprising that some quarters still attempt to prevent water concerns from rising to the level of collective security threats.²²⁴

Ensuring political stability:

There are 261 international rivers covering almost half of the total land surface of the earth and affect 40% of the world's population. Water is the only scarce resource for which there is no substitute, over which there is poorly developed international law and the need for which is overwhelming, constant and immediate.²²⁵ As a result water and security have been increasingly closely associated yet only seven minor skirmishes have been fought over water in the past century and no war is recorded in all of history.²²⁶ It is, however,

²²² J. McGregor 'The Internationalisations of Disputes over Water: The Case of Bangladesh and India' (2000) *Australasian Political Studies Association Conference*, 3rd-6th October, Canberra: ANU. Available at <http://apsa2000.anu.edu.au/confpapers/mcgregor.rtf> (Accessed December 2007)

²²³ *ibid*

²²⁴ *ibid*

²²⁵ Postel and Wolf *op cit* 180

²²⁶ Wolf (1998) *op cit* 1

questionable whether the past is a relevant guide to the future as water becomes increasingly scarce.²²⁷

Water is a vital aspect of a nation's survival, from its inhabitants' biology to their economy. The scarcity of water in arid and semi-arid environments leads to intense political pressures, often referred to as "water stress." Water stress is spreading as populations increase. By 2015, nearly 3 billion people are expected to live in countries that find it difficult to mobilize enough water to satisfy the food, industrial and domestic needs of its population.²²⁸ The largest imbalances are to be found in Asia where roughly 60% of the world's population exist on approximately 36% of its freshwater.²²⁹

Water not only ignores political boundaries but evades institutional classification and legal generalizations. The watershed is water's natural management unit, yet it strains both institutional and legal capabilities by incorporating surface and ground water as well as quality and quantity issues.²³⁰ Analyses of international water institutions find rampant lack of quality considerations in quantity decisions, lack of specificity in rights allocations, disproportionate political power by special interest and a general lack of concern for environmental concerns in decision-making.²³¹

International law only concerns itself with the rights and responsibilities of nation states and some entities would be excluded from discourse and allocations. In addition, cases are heard by the ICJ only with the consent of all parties involved and no practical enforcement mechanism exists to back up the courts' findings. Thus a state which finds its own interests most important can ignore entirely the courts' findings. Given the intricacies and limitations involved, it is not surprising that the ICJ has only heard one case concerning water law.²³²

²²⁷ Postel and Wolf op cit 180

²²⁸ ibid

²²⁹ ibid

²³⁰ Wolf (1998) op cit 1

²³¹ ibid

²³² ibid

Put these characteristics together and one finds compelling evidence that “the wars of the next century will be about water.”²³³ However, a closer examination of the case studies presented by neomalthusians suggest significant shortcomings in their classification of conflicts. Besides the Israeli-Arab conflict, actual armed conflict has not occurred in any of the supposed “well known” cases.²³⁴

Indeed the Israeli-Arab conflict is the most widely cited example of water conflict, with water scarcity repeatedly described as a causal factor in both the 1967 war and the 1982 Israeli invasion of Lebanon. The only problems with these “hydraulic imperative” theories is the complete lack of evidence. While shots were fired over water from 1964-1966, the final exchange stopped construction of the disputed diversion project and effectively ended water-related tensions between the two states a full year before the outbreak of the 1967 war. The 1982 invasion presents even less evidence of any relation between hydrological and military decision-making. Thus it must be concluded that water was neither a cause nor a goal of any Israeli-Arab warfare.

Thus many of the examples cited by neomalthusians turn out to be about political tensions and stability rather than competition over water resources. Thus the actual history of armed water conflict is less dramatic than the literature would have us believe. War over water seems neither strategically rational, hydrologically effective nor economically viable.²³⁵

Even in cases where the risks of warfare are deemed acceptable, the economic and political costs of warfare have increased.²³⁶ While modern warfare requires increasingly sophisticated and costly equipment, it is the severing of potentially lucrative economic partnerships that have the greatest economic cost. When we examine the costs of waging war over water resources we see that this cost cannot be justified as the problems resulting from warfare far exceed the economic value of the contested water

²³³ Ismail Serageldin, World Bank vice president, New York times, 10-08-95

²³⁴ Wolf 1998 op cit 1

²³⁵ ibid

²³⁶ John Orme “The Utility of Force in a World of Scarcity” (1998) 22(3) International Security, pg. 138-167 at 142

resources.²³⁷ One scholar has observed that the cost of desalinating seawater puts an upper bound on the value of freshwater and notes that, although desalination is inefficient except in times of drought, the cost of supplying 100 000 people with a sustainable water supply is roughly equivalent to the cost of one fighter jet.²³⁸

The history of cooperation is much more impressive with 145 water related treaties ratified in the past century.²³⁹ Many of these show a supreme elegance, creativity and sensitivity to the individual situation of each basin. The effort dedicated to the elaboration of water sharing agreements demonstrates that shared interests along a waterway consistently outweigh water's conflict inducing characteristics. Once cooperative water regimes are established through treaty, they have been shown to be impressively resilient over time, even between otherwise hostile neighbours or as conflict is waged over other issues. These patterns suggest that water can induce international cooperation and incite violence only as an exception.²⁴⁰

Whether or not water scarcity causes outright warfare in the next few years, it has already caused substantial internal conflict and political instability.²⁴¹ It has become a well recognised fact that most outright violence over water occurs at an intrastate level between tribes, sub-national units, water use sectors or states. Indeed internal water conflicts seem to be quite prevalent. While water has played a large part in internal conflict as a means, method and even victim of warfare, it has also played an ancillary role in conflict over other issues and can be aggravating factor in hostile relations between parties. Today, as demands hit the limits of finite supply, conflicts are spreading within nations. More than 50 nations could be spiralling towards

²³⁷ F M Fischer et al "Water: Casus Belli or Source of Cooperation?" (2001) Massachusetts Institute of Technology Working Paper available at web.mit.edu/ffisher/www/waterpage/contentpage/Oklahoma.pdf (Accessed 15 October 2007)

²³⁸ Ibid

²³⁹ Wolf (1998) op cit 1

²⁴⁰ Ibid

²⁴¹ Postel and Wolf op cit 180

disputes unless they move quickly to establish agreements on how to share the waters contained in their watercourses.²⁴²

One need look no further than the relations between India and Bangladesh to note that internal instability is both caused by and can exacerbate by international water disputes.²⁴³ A diversion of the Ganges away from Bangladesh has resulted in multiple adverse effects for the downstream riparian. Degradation of surface and groundwater, changes in morphology, impeded navigation and transportation, increased salinity, degraded fisheries and danger to public health are some of the negative results of the unilateral diversion of the Ganges. Environmental refugees flooding out of the affected area have further compounded the problem and it is ironic that most have found refuge in India.

So while no interstate water wars have occurred, there is ample evidence that lack of water has led to intense political instability and that acute violence can result. This seems to indicate that geographic scale and conflict intensity are inversely related.²⁴⁴ As recent history in the Balkans and sub-saharan Africa testify, civil conflicts have a nasty habit of spilling over borders and becoming tomorrow's wars. Water disputes between countries have already fuelled decades of regional tensions, thwarting economic growth and threatening larger conflicts.²⁴⁵

Dam Unilateralists:

Lost amid the argument whether there will be water wars is a serious effort to understand how and why tensions develop over shared water resources. Although there are significant differences between international and domestic systems, the issues associated with both stem from changing circumstances and historical sensitivity to the importance of water rights.²⁴⁶ The over arching

²⁴² *ibid*

²⁴³ Wolf (1998) *op cit* 1

²⁴⁴ *ibid*

²⁴⁵ Postel and Wolf *op cit* 180

²⁴⁶ J Huang 'Finding flow: The need for a dynamic approach to water allocation' (2006) New York University School of Law available at

lesson to draw from the Jordan, Tigris-Euphrates, Nile and other controversial river systems is not that water dispute inevitably leads to violence. Rather it is that unilateral actions to develop a river, by the construct of a dam or diversion project, in the absence of a treaty or institution to protect the interests of all riparian states is likely to have a highly destabilizing effect on a region. Regional tensions can spur decades of hostility before cooperation is pursued.²⁴⁷

In other words, the red flag for water-related tensions is not water stress per se, as is the case with domestic disputes, but rather a unilateral attempt to develop an international river. Many conflicts follow a similar trajectory as unilateral construction of a big hydrological project leads to a protracted period of regional insecurity and hostility, eventually followed by a long and arduous process of dispute resolution.²⁴⁸

Political boundaries are changing and there is the potential for future splits to further fragment the management of international water resources.²⁴⁹ Studies have found that sudden changes to a river's physical or political setting such as construction of an irrigation scheme or the break up of a nation that results in a new international river, coupled with the inability of existing institutions to absorb and effectively manage these changes are likely to greatly increase the chances of conflict.²⁵⁰

Potable water is increasingly scarce, particularly against the backdrop of expanding global population and the rising spectre of climate change.²⁵¹ The official response to drastic water shortages is to build dams or divert rivers yet we are tampering with water systems on a scale that is unsustainable and unacceptable. The number of large dams worldwide has climbed from 5000 in

www.law.nyu.edu/JOURNALS/LAWREVIEW/ISSUES/vol81/no2/NYU204.pdf (accessed February 2008)

²⁴⁷ 'More than water wars: Water and international security' (2007) NATO Review available at www.nato.int/docu/review/2007/issue4/english/analysis5.html (accessed may 2008)

²⁴⁸ *ibid*

²⁴⁹ F Alvaro & C Vicente *op cit* 218

²⁵⁰ Postel and Wolf *op cit* 180

²⁵¹ Dellapenna *op cit* 20

1950 to almost 500,000 today.²⁵² Developed nations in the northern hemisphere have harnessed three quarters of the flow of rivers while in the US only 2% remain free flowing and undeveloped. The Thames is threatening to run dry and larger ships limit their entry to high tides. Development has cut the Rhine River off from 90% of its flood plain and the Danube's phosphate level has increased six fold.

As a result of the heightened scarcity and interconnectivity of water resources, there is always the possibility that once state's planned measures will lead to disruptions of other states planned usages or rights²⁵³ and water agreements need to take cognizance of all actors needs. General water law would greatly serve the interests of global security if it could find a way to force all agreements into an exhaustive procedure for assessing all possible interests.

Water and developmental rights:

The link between water and developmental rights is well illustrated by its priority position in the World Summit on Sustainable Development plan of implementation. In this document, access to water is primarily dealt with in chapter II on poverty eradication and chapter IV on the protection and management of the natural resource base of economic and social development.²⁵⁴ In order to meet the ends of development and the eradication of poverty it is essential that the goal of providing sufficient quantities of potable water is achieved at the soonest possible time.²⁵⁵

However, the provision of water has gradually been subsumed by the more general issues surrounding the environment and has lost its status as a relatively distinct area of global concern.²⁵⁶ In the twenty years following the Stockholm declaration, that the environment has dominated global discourse is clearly demonstrated by the Rio declaration and pre-eminence of the

²⁵² Riana op cit 5

²⁵³ Wouters et al op cit 9

²⁵⁴ Hilderling op cit at 52

²⁵⁵ ibid

²⁵⁶ Wouters op cit 210 at 4

concept of sustainable development in the thinking of those responsible for it.²⁵⁷ Water has but one chapter assigned to it and, interestingly, some of the norms housed within chapter 18 of the declaration had weakened significantly since the Stockholm declaration.²⁵⁸

The Millennium Declaration was intended to provide a blueprint for poverty reduction and accelerated development. However, only Goal 7 and its targets 9 and 10 specifically dealt with water and sanitation issues.²⁵⁹ However it is important to remember that achievement of all the Millennium Development Goals (MDGs) hinges and the quantity and quality of available water as it plays a disproportionately large role in, amongst other things, food production and security, hygiene, sanitation and health and the maintenance of ecosystem services.²⁶⁰

The relationship between water and development is well-formulated in Agenda 21, Chapter 18, paragraph 18.6: '...The extent to which the development of water resources contributes to economic productivity and social well-being is not usually appreciated, although all social and economic activities rely heavily on the supply and quality of freshwater...' Moreover, the cost of providing such access to water is far outweighed by the cost of not doing so, mainly because of its effect on loss of productivity.²⁶¹

Agriculture consumes a disproportionate amount of the world's water and remains an important sector for low-income countries and the poor that reside in them. In developing countries, 80% of export earnings come from agricultural sector. It is also the thirstiest sector, accounting for 70% of global water usage. However, due to wastes and inefficiency, 60% of this is lost. Access to water is a limiting factor for agriculture in many regions and as this problem is rooted in variable rainfall, it is likely to intensify with climate change.

²⁵⁷ *ibid*

²⁵⁸ *ibid*

²⁵⁹ 'Water policy and strategy of UNEP' *op cit* 84

²⁶⁰ *ibid*

²⁶¹ Hilderling *op cit* 7 at 53

The world's population is projected to hit 10 billion by the middle of this century and the rising demand for food has already been felt. Countries commonly adapt to water stress by importing more food. As it takes about 1000m³ to produce one ton of grain so by importing wheat and other staples, water stressed countries can allocate more of its freshwater reserves to cities and industry which generate much more economic value per litre than agriculture does.²⁶²

The link between water, poverty and human development:

A sufficient supply of clean water for drinking and other household uses as well as agriculture is essential for fighting poverty and hunger. Meeting the MDGs in this area will be impossible without dramatic improvement to water management systems and dramatic expansion of access for the world's poorest. Indeed capacity is often very lacking in several key areas of management including resource assessment, health and hygiene, operation and management and service provision.²⁶³

Poverty at its most extreme threatens human survival. The health of poor people is disproportionately affected contaminated water and poor sanitation services, setting up a cycle of ill-health and further impoverishment with severe financial and personal cost.²⁶⁴ In rural systems, poor people's livelihoods are rooted in the natural world and are dependent on ecosystem health. Lack of safe water supply and contamination of common property reserves such as lakes and rivers directly translate into less income, food and time for the rural poor as they provide a significant share of food and household income.²⁶⁵

Vulnerability is a critical dimension of poverty as poor people are particularly at risk from environmental fluctuations or crises. The increased severity of

²⁶² Postel and Wolf op cit 180

²⁶³ ibid

²⁶⁴ 'Water Governance for poverty reduction' (2004) UNDP guide pages available at www.undp.org/water/pdfs/241456_UNDP_Guide_Pages.pdf (accessed March 2008)

²⁶⁵ ibid

natural disasters and shifting rainfall patterns brought about by climate change impact developing countries and the poor that live there most.²⁶⁶

Access to water is key in activities that can lead out of poverty and meeting basic needs for water should take preference of allocation over other developmental needs. It is becoming increasingly apparent that an overhaul of current spending priorities is needed.²⁶⁷ Water for basic needs must be held in the highest possible priority and policies need to put people first and focus on the silent masses of unserved.²⁶⁸ Central to this aim is the fulfilment of the long overdue commitment to ensuring access to improved sanitation.²⁶⁹

Improved water management can help save many of the 2-3 million people that die annually from water related illnesses and have a marked effect on human security. Experts generally agree that providing the necessary access would cost a relatively modest amount and water provision is less controversial than other areas such as climate change.²⁷⁰

According to the WWDR of 2003 there are a number of implications of the world water crises such as a huge increase in the number of people without sufficient access to water, a growing gap between rich and poor as well as rural and urban populaces with regards to water provision and sanitation. Further inequalities have been detected the rising costs of water related disasters and disease, declining quality of water resources and negative impacts of ecosystems, under financing of the water sector, increased pressure on water resources from increased agricultural and industrial demands and pollution and the need to strengthen water governance.²⁷¹

²⁶⁶ *ibid*

²⁶⁷ Peter Gleick 'The Human Right to Water' (1999) 1(5) *Water Policy* 487

²⁶⁸ 'Water Security: A Preliminary Assessment of Policy Progress since Rio' (2001) United Nations World Water Assessment Programme available at www.unesco.org/water/wwap/wwdr/water_security.pdf (accessed January 2008) at 11

²⁶⁹ *ibid*

²⁷⁰ *ibid*

²⁷¹ 'Water policy and strategy of UNEP' *op cit* 84

For millions, their daily source of drinking water is also an international watercourse and these communities need assured access to and active participation in the management of these shared water resources.²⁷²

New composite indicators have helped gain an insight into the relationships between water and health. These insights have justified considerations of these needs and helped to promote the broader acknowledgment of the intricate interrelationships between water and health as well as other factors.²⁷³ Retrospective Impact Assessments on some older water supply projects in Ethiopia, Ghana, Tanzania and India and found some remarkable results.²⁷⁴

Water policies often failed to integrate financial considerations with allocation schemes and ignored the need for individual livelihood inputs to be considered along with industrial, agricultural and commercial demands.²⁷⁵ These inputs form special interests in the developing world where more local practices such as raising livestock and growing vegetables or providing services and handicrafts are vital to the economy.²⁷⁶ As the rural poor lose access to irrigation waters and their livelihoods deteriorate, they not only resort to violent protest but tend to migrate across borders and to already overcrowded urban areas.²⁷⁷

On the other hand, projects based on community mobilization and empowerment are found to have become sustainable success stories.²⁷⁸ Although these projects were initially aimed at health objectives and directly benefiting women and children, several corollary benefits were noted. Among the benefits most keenly felt were:

²⁷² 'National Sovereignty and International Watercourses' Green Cross International (2000) available at webworld.unesco.org/.../pdf/background_documents/national_sovereignty%20international_watercourses_2000.pdf (accessed March 2007)

²⁷³ *ibid*

²⁷⁴ *ibid*

²⁷⁵ *ibid*

²⁷⁶ *ibid*

²⁷⁷ Postel and Wolf *op cit* 180

²⁷⁸ 'Water Security: A Preliminary Assessment of Policy Progress since Rio' *op cit* 268 www.unesco.org/water/wwap/wwdr/water_security.pdf (accessed January 2008) at 11

- The reduction in fatigue and time saved from greatly shorter travelling distance to obtain water. This resulted in improved productivity and more work days.²⁷⁹
- Health benefits including reduced medical costs from the noticeably lowered levels of old favourites dysentery, diarrhoea and malaria but also fewer worm, bilharzia and scabies infestations.²⁸⁰
- A wide range of income benefits emerged including vegetable production, brewing, brick- and pot-making and a number of other services and products. This produced multiplier effects as increased access to water and income had positive impacts throughout the local economy.²⁸¹
- By participating in the development of the infrastructure the local community had learned valuable skills such as masonry, mechanics, management and leadership skills as well as the emergence of savings and credit groups that further contributed to economic development in the regions assessed.²⁸²
- Further more, the community involvement led to the formation of civic organizations that formed the basis for wider mobilization and greater community coherence.²⁸³

From these experiences it is possible to see how the opportunities afforded to people by reliable access to water for basic needs have had positive impacts throughout communities. The new skills, confidence and local organization produced economic momentum that further impacted on wider political and governance systems.²⁸⁴

The human right to water:

²⁷⁹ *ibid*

²⁸⁰ *ibid*

²⁸¹ *ibid*

²⁸² *ibid*

²⁸³ *ibid*

²⁸⁴ *ibid*

The indisputable importance of water for life has established a worldwide drive to include water rights on the list of universally recognized human rights. It may be surprising to observe that until relatively recently, water had gained only limited recognition as an implicit aspect of other existing rights.

The release of the UN General Comment no.15 changed this, stating that 'the human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights'.²⁸⁵ Furthermore, General Comment no. 15 imposes several other, more specific duties on states, primarily centred on the need to prevent discrimination and improve accessibility.²⁸⁶

The human right to water began to receive wider approval around the turn of the century and was eventually recognised as an independent right. The UN Committee on Economic, Social & Cultural Rights stated: "*the right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival.*"²⁸⁷

Water has been repeatedly linked to the right to the highest attainable standard of health. This right to health which was enshrined in the constitution of the World Health Organisation as early as 1946 and thereafter in the primary human rights agreements, the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights amongst others.²⁸⁸ However, the right to water continues to exist only as subsidiary to the right to an adequate standard of living and the right to health as laid out in art 11 and 12 of the International Covenant on Economic, Social and Cultural Rights.

²⁸⁵ 'The Right to Water: General comment No.15' Academy of European Law online available at www.righttowater.org.uk/code/no15_2_3.asp (accessed January 2008)

²⁸⁶ *ibid*

²⁸⁷ 'Substantive issues arising in the implementation of the international covenant on economic, social and cultural rights: General Comment No.15 - The right to water' (2002) Committee on economic, social and cultural rights available at www.unhchr.ch/html/menu2/6/gc15.doc

²⁸⁸ 'The Right to water' (2003) World Health Organization Health and human rights publication series no 3 available at http://www.who.int/docstore/water_sanitation_health/Documents/righttowater/righttowater.pdf (accessed December 2007)

Analysis proves that one of the major problems facing the development and subsequent realisation of the right to water is the US reluctance to transform the current hierarchy of power and weaken its stranglehold on global power.²⁸⁹ The US is opposed to discussing water provision in human rights terms and has even prevented references to the right to water being included in conference statements.²⁹⁰ This is perhaps due to the fear that inclusion of this right in such statements will contribute to the right to water becoming part of CIL.²⁹¹

However, general principles common to systems of national law also can also be sources of international law. In this case, a general principle may be invoked as a rule of international law because it is common to major legal systems of the world and the right to water has become so widely acknowledged in international meetings and declarations as well as state practice, and is now penetrating UN and European Community discourse, that many commentators argue that it is already part of CIL.²⁹²

In 2003, the Supreme Court of India ruled that the right to water is a fundamental right that is constitutionally guaranteed.²⁹³ Thus we observe how the processes by which the right to water has been implemented at national levels has been diverse, indicating that there is no single way to translate General Comment No.15 into national legislation and policy. Much of the legislation and policies that have developed from the recognition of the right to water have focused on extending coverage to disadvantaged groups and creating water services that are affordable for all.²⁹⁴

²⁸⁹ Gleick (1999) op cit 267 at 490

²⁹⁰ P Gleick 'Water Rights: The discussion that is always tabled at global conferences' (2005) 18(4) World View available at www.worldviewmagazine.com/issues/article.cfm?id=172&issue=40 (accessed December 2007)

²⁹¹ *ibid*

²⁹² *ibid*

²⁹³ Gleick (1999) op cit 267 at 490

²⁹⁴ The Right to Water 'General comment No.15' Academy of European Law online available at www.righttowater.org.uk/code/no15_2_3.asp (accessed January 2008)

It may be possible to infer that the right to water may be considered fundamental on the same grounds that elevate the right to health to a to that status even if it is not enumerated as a non-derogable right in international human rights covenants. These declarations state that no State may derogate from or restrict a fundamental human right “on the pretext that the present Covenant does not recognize such rights or that it recognizes them to a lesser extent.”

Water should be recognised as fundamental and therefore non-derogable and it would seem that General Comment no. 15 uses language that securely categorises it as a fundamental right and a “prerequisite” to other rights. Yet the right to water maintains a lesser position in human rights law. It may be beneficial to attempt to gain a better understanding of the meaning of the term right to water and the effects of its implementation.

Formally acknowledging water as a human right would be a good way of encouraging the international community and national governments to improve efforts to satisfy fundamental human needs and help achieve the millennium development goals (MDGs).²⁹⁵ Recognising a right would help force concrete actions in furtherance of the MDGs, create pressure to impose international obligations and responsibilities as well as focusing attention on the need to resolve conflicts over shared water.²⁹⁶

Acknowledging the human right to water does not require that the water be provided free. Water provision has been shown to be more sustainable and efficient if the basic costs of provision are reclaimed from those receiving service. It has also been shown that even the most impoverished societies are willing to pay for reliable provision. The right to water does require that water services cannot be denied to those who are unable to pay for it.²⁹⁷

Conclusion:

²⁹⁵ *ibid*

²⁹⁶ *ibid*

²⁹⁷ Gleick (1999) *op cit* 267 at 490

The human right to water does exist as the most essential element of a more general right to life but it has not yet been expressly defined by international law or recognised by the international community at large. Rather it is seen as an implicit component of existing fundamental rights and has been included in many documents seeking to conclude relatively well defined and specific ends.

Human rights law is difficult to penetrate and a human right to water has struggled to gain primacy. As long as we cling to the human rights approach we will always be struggling for some crumbs of the human rights pie. It is important to note that the crucial nature of water cuts across categories of human rights and highlights the actual indivisible nature of human rights.²⁹⁸

Law based on the provision of water for basic needs plays an integral part in fulfilling the global commitment to the MDGs and thus achieve human security. Indeed, achieving the MDGs and other widely agreed development goals is central to our global economic stability and prosperity. The UN has played a crucial role in the development of the MDGs but it now needs to take decisive action to achieve them including increased support for governments implementing national plans. Further, it is vital that the UN takes immediate action to ensure cooperative and consultative approaches to water resource development. Limiting unilateral development should remain a priority and is integral to maintaining national security and international stability. Action on both hard and soft security targetss would go along way to securing the objectives of the UN and building legitimacy in the eyes of the global populations.²⁹⁹

Despite its unique legitimacy, including the universality of its membership, the status of the UN as the central actor of multilateralism is undermined by the lack of focus on results. Thus it fails, more than anyone else, the poorest and

²⁹⁸ Hilderling op cit 7 at 36

²⁹⁹ 'Report of the High-level Panel on United Nations System-wide Coherence in the areas of development, humanitarian assistance and the environment' op cit 86 at 5

most vulnerable.³⁰⁰ Building human security builds legitimacy through interaction with populations while similar results can be achieved with national security through consultative approaches to development. However, without far reaching reform, the UN will be unable to deliver on its promises and maintain its legitimate position at the heart of the multilateral system.³⁰¹

5. International Water Law and the nature of water norms:

International Water Law (IWL) is the body of law governing actions over water shared by two or more states³⁰² and has been developed through multiple attempts to ease conflicts over transboundary resources.³⁰³ Water law is a complex topic which grows ever more important in a world of growing scarcity.³⁰⁴ It has been derived from lengthy custom and a wealth of treaty practice but also draws much of its normative force from other sources such as the general principles of law, judicial decisions, resolutions and recommendations from international organizations.³⁰⁵

The development of IWL is inseparable from the development of international law in general as it incorporates such important principles as sovereign equality of states, non-interference in matters of exclusive national jurisdiction, responsibility for breach of state international obligations and the requirement of peaceful settlement of disputes.³⁰⁶ Indeed, International water law seeks to reconcile the sovereign rights of states to optimize benefits for all parties while ensuring an adequate level of protection for the watercourse and its ecosystem. Thus, it is no coincidence that it uses language centred on the limitation of sovereignty. Never the less, nations have found innovative ways to share the waters of transboundary resources and this has been found to be greatly beneficial for dispute avoidance.³⁰⁷

³⁰⁰ *ibid*

³⁰¹ *Ibid*

³⁰² Wouters et al op cit 9 at 5

³⁰³ Hildering op cit 7 at 45

³⁰⁴ Dellapenna op cit 20

³⁰⁵ Wouters et al op cit 9 at 5

³⁰⁶ *ibid*

³⁰⁷ Dellapenna op cit 20

International law regulates water management for three reasons. Firstly international watercourses influence more than one state and shared watercourses have an inter-state character.³⁰⁸ Secondly, water management impacts upon human rights and other principles upon which the international system is founded.³⁰⁹ Thirdly, the ambient nature of water internationalizes effects from action anywhere on the water cycle and often causes transboundary effects.³¹⁰ As a result of this internationalization, IWL contains substantive elements that determine legal entitlement to the benefits associated with watercourses along with procedural elements such as dictated behaviours that are required when developing the resources.³¹¹

The fact that water is essential to so many sectors of society has created conflicts between users and necessitated a means of prioritising users to put water to its most beneficial uses. The question remains whether certain users should be granted priority over others if they have vested interests in the waters and these interests are core considerations for the maintained productivity of the state. IWL attempts to regulate the users and usages in such a way to maintain and develop equitable divisions as well as incorporating an element of conservation into decisions affecting water governance.³¹²

Progressive codification of water law:

Water law originated some 2000 years ago as various civilisations were forced to deal with the issue of water allocation and its legal aspects.³¹³ Indeed the rise and fall such varied early civilisations as the Egyptian, Hindu,

³⁰⁸ Hilderling op cit 7 at 48

³⁰⁹ *ibid*

³¹⁰ *ibid*

³¹¹ Wouters et al op cit 9 at 11

³¹² L Caflisch 'Regulation of the Uses of International Watercourses' available at www.popline.org/docs/1284/138478.html (accessed February 2008) at 3

³¹³ Hilderling op cit 7 at 33

Meso-American, Hebrew and Mesopotamian societies seems to be closely linked with the availability and management of water resources.³¹⁴

Water law was important during the period of roman influence and several key principles were formed at this time. The Romans recognized several rights including the right to water use and a right of access to water. They observed a distinction between private and public water depending on the legal status of the land it was found on. They further categorized water depending on the end usage and recognized the multiple roles water plays in society. Roman law even contained an embryonic formulation of the no harm rule in the prohibition on the use of water for the purpose of damaging your neighbour.³¹⁵

Roman law remains influential in European law and the law of many other regions. Through the process of colonisation Roman law has been exported to the colonies of Africa, the Americas, Asia and Australia.³¹⁶ These countries had Roman law imposed upon them and their legal systems reflect this to the present day. Other important sources of water law are Moslem, Hindu and Buddhist systems that have their origins in religious texts. Indeed, the name of the general Moslem legal system is "Sharia" which translates literally as "path to water"³¹⁷ and demonstrates the high regard which this culture, along with many others throughout the world, treat water and the rights to it.

Throughout history, laws have developed in response to an experienced need in different regions and sectors. Initially, the legal focus of water law was the regulation and protection of freedom of navigation based on the idea of common interest. The priority afforded navigation peaked in 1919 with the Peace Treaty of Versailles and began to decline in parallel with fascism.³¹⁸ Beginning in 1814, non-navigational usages have garnered more attention

³¹⁴ *ibid*

³¹⁵ *ibid*

³¹⁶ *ibid* at 52

³¹⁷ J Salzman 'Thirst: A short history of drinking water' (2005) Duke Law School legal studies research paper series Research paper no.92 available at [eprints.law.duke.edu/archive/00001261/01/17_Yale_J.L._&_Human._94_\(2006\).pdf](http://eprints.law.duke.edu/archive/00001261/01/17_Yale_J.L._&_Human._94_(2006).pdf) (accessed December 2007)

³¹⁸ Hilderling *op cit* 7 at 48

and, especially since the end of World War II, issues other than navigation have begun to dominate bilateral conventions. The cold war and decolonisation further shifted the emphasis of water law to non-navigational issues such as Frontier Rivers, legal entitlement to the benefits of water usage and ecological protection.³¹⁹

The first effort to codify international custom relating to these factors shared watercourses was made by the Institute of International law in 1911 in its Madrid Declaration entitled "International Regulation regarding the Use of International Watercourses for Purposes other than Navigation."³²⁰

Still the issue remained on the periphery and this early text was only followed in 1966 by the ILA's Helsinki rules on the uses of the waters of international rivers.³²¹ The rules were undoubtedly a systematic and comprehensive attempt at formulating an international code of conduct³²² which excluded only the issues of ground waters and boundaries.³²³ The rules continued to evolve and were updated on several occasions to include emerging concepts such as improved environmental protection.³²⁴

The text laid a precedent for future documents by enunciating the rule of Equitable and reasonable use in art 5 and a list of factors to consider when implementing it in art 6.³²⁵ Importantly Art 7 stated that there was no category of use that would enjoy preference of use over others.³²⁶ Thus the Helsinki rules sowed the seed of IWRM by urging equal consideration of all actors, present and future, and laid the cornerstone of modern IWL by embodying the rule of Equitable and Reasonable Utilization (ERU) for the first time.

Yet the rules influence ran much deeper than this as they had a profound effect on the treaty practice of states and its principles were increasingly relied

³¹⁹ Caffisch op cit 312 at 7

³²⁰ Wouters et al op cit 9 at 15

³²¹ Ibid

³²² Ibid

³²³ Caffisch op cit 312 at 7

³²⁴ Ibid

³²⁵ Ibid

³²⁶ Ibid at 8

upon in later efforts to identify and integrate the existing law.³²⁷ These principles can be found in several important documents including the 1992 UN Convention on the Protection and Use of Transboundary Watercourses and International Lakes, the SADC revised protocol and other regional agreements.

Despite the sense and soundness of the rules, they received little official standing and carried little normative force.³²⁸ As a result, water supplies, especially those in developing countries continued to dwindle. As a response, the UNGA requested the ILC to prepare a set of draft articles to govern the non-navigational uses of IWC. That was 1971 and it took twenty years, thirteen reports and five Special Rapporteurs before the commission was able to release a first draft of 32 articles to the UNGA for discussion and comments by governments.³²⁹

The 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses was negotiated and accepted by the UN general assembly. Though not yet in force the convention has been referred to in *Gabcíkovo-Nagymaros* ruling as evidence of custom.³³⁰

The ILA continued to work in this field and adopted a new set of rules dealing with a range of issues known as the 2004 ILA Berlin Rules on Water Resources.³³¹ The Berlin rules, which attempted to update existing IWL, have received mixed reaction. Some commentators saw great value in the rules which seem to be an accurate, progressive and integrated statement of the existing rules governing the management of international water resources. As such, they should be of great use in the management of these bodies.³³²

³²⁷ Hilderling op cit 7 at 53

³²⁸ Caflisch op cit 312 at 8

³²⁹ Ibid

³³⁰ Wouters op cit 210 at 45

³³¹ Hilderling op cit 7 at 47

³³² Ibid

On the other hand, these rules have been widely criticized as not reflecting existing watercourse law³³³ as they do not only deal with transboundary watercourses but, seemingly in contradiction to prevailing thought, have not preserved the domestic/international divide by including those entirely within one state.³³⁴

The international community has failed to formulate a multilateral agreement binding on all parties³³⁵ and it has been widely agreed that bi- and multi-lateral agreements on a regional scale play a fundamental role in the establishment of international water rights. According to the UN Food and Agriculture Organisation, more than 3,600 treaties relating to international water resources were concluded during the period of 805 to 1984.³³⁶ This intricate web of agreements results in a somewhat fragmented, chaotic situation and conflict is often the result as states are left scrambling for water rights.³³⁷

Due to the general absence of an enforcement mechanism, international customary law by itself has proved largely ineffective at solving the problem of managing transboundary water resources.³³⁸ Thus, treaties offer the greatest chance of minimizing the risk of conflict and substantial treaty practice has emerged. Following this allocated shares have been respected even in times of open hostility.³³⁹

The complex system of international agreements that forms the legal framework for peaceably coexisting in a shared basin has been fundamentally shaped by customary international law. Even in the absence of such agreements, customary law provides ample guidance in the form of simple rules that allow nations to peaceably coexist in shared river basins.³⁴⁰

However finding the appropriate practice involves study of international

³³³ Wouters et al op cit 9 at 17

³³⁴ Hildering op cit 7 at 47

³³⁵ Dellapenna op cit 20

³³⁶ Hildering op cit 7 at 47

³³⁷ J Van Wyk, 'Towards Water Security in Southern Africa' (1998) available at www.iss.co.za/ASR/7No2/VanWyk.html (accessed March 2007)

³³⁸ Dellapenna op cit 20

³³⁹ *ibid*

³⁴⁰ *ibid*

agreements, decisions by international courts and arbitrators and, tellingly, the unilateral acts of nations.

Formation of customary law: Limiting unilateral sovereignty

Due to the consistent practice of claim and counterclaim, the sharing of international waters has become entirely predictable, except in times of extreme power imbalance.³⁴¹

All nations agree that only co-riparian nations may have access to any part of the shared water resource but thereafter opinion diverge sharply according to the status of the nation.³⁴² It is the nature of water that it takes on different characteristics as it flows through its course and this is reflected the traditional stances of upper and lower riparian nations that claim diametrically opposed models of water resource usage.

In the past, states sought to derive optimal benefits from their water resources and upper riparian states were the first to claim “absolute territorial sovereignty” or the right of states to develop resources within their territory without contemplation of the effects downstream.³⁴³ This became known as the Harmon Doctrine after a dispute between the United States of America and Mexico over the waters of the Rio Grande led Attorney General Judson Harmon to proclaim ‘...*the jurisdiction of the nation within it’s own territory is necessarily exclusive and absolute...*’³⁴⁴

This stance left lower riparian nations clinging to the somewhat unlikely concept of “absolute territorial integrity”³⁴⁵ or “total integrity of the river”, which

³⁴¹ Dellapenna op cit 20

³⁴² ibid

³⁴³ S C McCaffrey *The Law Of International Watercourses* (Oxford: Oxford University Press 2003) at 113

³⁴⁴ Ibid at 89

³⁴⁵ ibid at 128

was formed in response and claimed the right to water resources in an unaltered state.³⁴⁶

The utter incompatibility of these two notions has ensured that alternate models would be required to adequately share water resources and modern IWL has recognised several guiding principles that dictate behaviours and standards expected of states when developing IWC. Negotiated over a period of decades,³⁴⁷ these customary law principles have the effect of limiting the scope for unilateral action and have come to embody the doctrine of limited territorial sovereignty.³⁴⁸

When planning any measure on any part of an international watercourse, Governments are compelled to consider the general principles of the law of international waters. There are three recognised principles, those of ERU, prior notification and the prevention of significant harm or no-harm rule.³⁴⁹

The allocation of scarce water resources is primarily regulated by the principle of ERU which provides states with a right to share in the benefits associated with water usages. However the principle qualifies state sovereignty by pressing states to recognise the interconnected and interdependent nature of water resources and usages.³⁵⁰

The International Law Association's Helsinki Rules were the first to enunciate the concept ERU which is the usual solution to the impasse created by the geopolitical stances of co-riparian nations.³⁵¹ This principle, which guides the allocation of shared water resources, has its roots in the domestic judicial practices of federal states such as the US, Germany and Switzerland and more precisely in the case-law relating to the allocation of water resources

³⁴⁶ I Hussein and O Al-Jayyousi, 'Management of shared waters: A comparison of international and Islamic law' (1997) available at www.idrc.ca/en/ev-93960-201-1-DO_TOPIC.html (accessed March 2007)

³⁴⁷ Dellapenna op cit 20

³⁴⁸ McCaffrey op cit 343 at 137

³⁴⁹ *ibid*

³⁵⁰ Hilderling op cit 7 at 53

³⁵¹ Van Wyk op cit 337 at 4

among the member units of those countries.³⁵² The practice of the US Supreme Court in the domestic setting has been particularly helpful to the development of this doctrine as the rule of “equitable apportionment” evolved as a rule to balance and align the competing aims of sub national actors.³⁵³

Since then, the principle of ERU has been crystallised into a rule of CIL derived from national and international judicial practice and supported by the successful treaty tradition.³⁵⁴ ERU has in fact evolved into the primary rule of IWL and now houses correlative rights and duties determined on a case-by-case basis and a weighing of all relevant factors in a holistic manner.³⁵⁵

The rule of equitable utilization is based on the idea that a drainage basin is a coherent and manageable legal unit and embodies the doctrine of “limited sovereignty”.³⁵⁶ This concept recognises all nation’s equal right to a share of the uses and benefits of a shared source or watercourse and the correlative duty not to interfere with other nation’s expectations of a reasonable share of the benefits.³⁵⁷

Nations often allocate water under this international water law which contributes towards peaceful coexistence and cooperation in the management of shared catchments.³⁵⁸ Consequently, any planned action must not restrict or infringe on the right of other parties to an equitable and reasonable share of the uses and benefits of the water.³⁵⁹ While international law accepts the sovereign right of nations to develop their resources, there is a balancing obligation to be aware of the transboundary effects of their activities.³⁶⁰

³⁵² Cafilisch op cit 312 at 7

³⁵³ Wouters op cit 210 at 2

³⁵⁴ *ibid*

³⁵⁵ Wouters et al op cit 9 at 15

³⁵⁶ Dellapenna op cit 20

³⁵⁷ *ibid*

³⁵⁸ *ibid*

³⁵⁹ Maccafrey op cit 343 at 138

³⁶⁰ *ibid*

Thus the outdated, static idea of national sovereignty was limited by concepts such as “equitable utilization” and “reasonable use” codified in the Helsinki Rules on the Uses of Waters of International Rivers of 1966.

‘Watercourse states shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse states with a view to attaining optimal and sustainable utilization thereof and benefits there from, taking into account the interests of the watercourse states concerned, consistent with adequate protection of the watercourse.’³⁶¹

Thus international water law had progressed significantly in the twentieth century and this doctrine now forms part of customary law and is even considered *jus cogens* by some nations.³⁶² Furthermore, the reference to sustainable utilization helped place IWL in the wider context of IEL and sustainable development.

In the *Gabcíkovo-Nagymaros* case, the ICJ affirmed the right to an equitable and reasonable share of a watercourse.³⁶³ Paragraph 78 of the ICJ Judgment states:

‘The suspension and withdrawal of that consent constituted a violation of Hungary’s legal obligations, demonstrating, as it did, the refusal by Hungary of joint operation; but that cannot mean that Hungary forfeited its basic right to an equitable and reasonable sharing of the resources of an international watercourse. In depriving Hungary of its right to an equitable and reasonable share of the natural resources of the

³⁶¹ Helsinki Rules on the Uses of Waters of International Rivers (1966)

³⁶² S Vinogradov et al “Transforming Potential Conflict into Co-operation Potential: The Role of International water law” (2002) UNESCO Technical Documents in Hydrology No. 2 available at unesdoc.unesco.org/images/0013/001332/133258e.pdf (accessed March 2007)

³⁶³ Hilderling op cit 7 at 91

*Danube, the proportionality required by international law was not respected.*³⁶⁴

Mean while, the no-harm rule has originated from and developed around the consideration that neighbouring states may not act as they please within their territories. The dictum *sic Mere tuo ut alienum non laedus* recognises that states may not use or allow their territory to be used in a way that may cause damage to their neighbours. This principle, which is linked to the concept of abuse of rights and originated in the sphere of private law, seems to constitute a "general principle of law recognized by civilized nations" which places it firmly in the landscape of CIL.³⁶⁵

The no-harm rule covers a large range of actions, including issues pertaining to the protection of the environments and allocation of benefits of shared watercourses.³⁶⁶ While it remains particularly relevant to environmental protection, it is of little use in determining legal entitlement in that most waterways are fully or over exploited and the issue is no longer one of preventing harm but rather apportioning uses between competing uses and users.³⁶⁷

The formulation of the UN Convention:

The rules of customary international rules governing freshwater resources form the basis of the UN Convention on the Non-navigational uses of International Watercourses (the UN Convention), the primary international framework convention for water law. Of utmost importance here is the fact that the UN convention recognizes the need to take each situation on its merits and urges all co-riparian states to cooperate in the joint management of all international rivers.³⁶⁸ It passes its rules of "equitable utilization" and

³⁶⁴ Gabčíkovo-Nagymaros Project (Hungary v Slovakia) [1997] ICJ Rep 1997/1

³⁶⁵ Caflisch op cit 312 at 11

³⁶⁶ *ibid*

³⁶⁷ *ibid* at 12

³⁶⁸ McCaffrey op cit at 324

“reasonable use” onto a multitude of bi- and multilateral agreements that form the basis for the regulation and management of water rights.³⁶⁹

Whether or not the UN convention gains ratification is irrelevant as it remains the core framework document and a model upon which states wishing to develop their resources can rely on to provide sound principles.³⁷⁰ The convention has been repeatedly affirmed as a declaration of existing watercourse law.³⁷¹

Given the multitude of treaties and agreements in this field it may be surprising that the only universal document in the watercourse suite was adopted fairly recently.³⁷² The original attempt to draft a treaty began in 1970 when the UNGA asked the ILC to consider the rules applicable to the governance of international watercourses.³⁷³ The ILC consists of 34 lawyers acting in their individual capacities and representing the major law systems of the world and is the UN organ charged with the codification and progressive development of international law.³⁷⁴ The ILC recognizes the main challenges to water security as: meeting basic needs and securing food supply, protecting ecosystems, sharing resources, managing risks and governing water wisely.³⁷⁵

The difficulties formulating a mutually agreeable treaty was evidenced by the length of time it took to draft and the seemingly irreconcilable views held by the diametrically opposed positions of upper and lower riparian states.³⁷⁶ Yet, the final convention turned out to be one of the most successful of the recent environmental agreements and has gained wide acceptance, which is surprising given the protracted debate during its drafting.³⁷⁷ It seems this is a sign of the international community’s commitment to equitably sharing water

³⁶⁹ Ibid at 303

³⁷⁰ Wouters et al op cit 9 at 15

³⁷¹ ibid

³⁷² ibid

³⁷³ ibid

³⁷⁴ ibid

³⁷⁵ United Nations Convention on the non-navigational use of International Watercourses (Preamble)

³⁷⁶ Wouters et al op cit 9 at 16

³⁷⁷ Wouters op cit 210 at 46

resources and evidence of the conventions place in the body of general international law applying to all nations.

The primary strength of the UN convention is a flexible yet decisive rule for apportioning benefits from the international water resource and determining legal entitlement.³⁷⁸ This is accompanied by detailed procedural rules and a layer of preventative actions to further protect scarce water resources.³⁷⁹ Thus the convention also attempts to use substantive rules to place all stakeholders on a level playing field, which helps weaker riparian nations to state their position and claim their rights.³⁸⁰

The fact that ERU is required by international customary water law is evidenced by the proliferation of bi- and multilateral agreements based on its tenants and the fact that the rule was also present, in an unaltered state, in the initial formulation of UN Convention on the Non-Navigational Uses of International Watercourses as expressed in article 5:

“1. Watercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilization thereof and benefits therefrom, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse.

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

³⁷⁸ *ibid*

³⁷⁹ *ibid*

³⁸⁰ *ibid*

Article 5 goes on to state that all watercourse nations shall participate in the use, development and protection of shared water resources. It also impresses the fact that the right to utilize the water resource contains a corollary duty to cooperate in their protection and development.³⁸¹

Article 7 requires watercourse nations to take all “appropriate measures” to prevent “significant harm” to other watercourse nations. If a nation is found to support a use which may cause harm it must take all “appropriate measures” to mitigate the effects of the harm and, if necessary, explore the possibility of compensation.³⁸² Like the polluter-pays principle, the no-harm rule provides grounds for such compensation and shifts the cost of repairing damage to those responsible for it, whether they are state or private entities. It does not seek to prevent harm but grant access to the legal system for those affected by it.³⁸³

The convention further strengthens the international regime by codifying the prior notification rule and providing mechanisms for establishing joint management schemes.³⁸⁴ Art 4 of the convention states that any “...watercourse State is entitled to participate in the negotiation of and to become a party to any watercourse agreement that applies to the entire international watercourse, as well as to participate in any relevant consultations...”.³⁸⁵ This codification of the prior notification rule allows any interested states to participate in all negotiations over planned measures.³⁸⁶ The procedural rules of the convention are a particular strength as they provide ample opportunity for governments to consult, cooperate and exchange information crucial for successful management.³⁸⁷ These pragmatic principles help nations to resolve disputes over the fair allocation of resources

³⁸¹ C Mafuto. SADC aligns Water Protocol with international Law (2001) Available at www.sardc.net/Editorial/Newsfeature/waterprotocol.htm (accessed October 2007)

³⁸² *ibid*

³⁸³ Dellapenna *op cit* 20

³⁸⁴ Wouters *op cit* 210 at 45

³⁸⁵ Wouters et al *op cit* 9 at 13

³⁸⁶ *ibid*

³⁸⁷ Wouters *op cit* 210 at 45

and guide governments towards peaceable, lawful exercise of their water rights.³⁸⁸

The Effect of the Berlin rules:

In the early years of the 21st century, the Helsinki rules were nearly 40 years old and the UN convention provides only a very general framework. New rules could provide a comprehensive, cogent and complete summary of existing CIL relevant to water management decisions.³⁸⁹

They were approved by the ILA on the 21st August, 2004 and lay out a new paradigm bridging the domestic- international divide. They stress conjunctive, participatory and integrated management of water resources and the minimization of environmental harm for all waters. On a domestic level they stress participatory management through implementation of a rights based approach. They accordingly recognize the right of access to water, a voice in decisions affecting one's life, access to education and access to legal remedies and associated compensation. The polluter pays principle is often used to gain redress in a situation of compensation for injury.³⁹⁰

The link between sustainability and minimization of environmental harm is tackled through the study of ecological integrity and the prevention and control of pollution, especially by hazardous substances. Prior assessment of possible impacts is essential and must be based on the precautionary principle to determine the least net environmental harm.³⁹¹

For shared international waters they reiterate the importance of ERU and cooperation and contain a watered down version of the no harm rule in the form of the principle of avoidance of transboundary harm. To bolster cooperation they suggest several modes such as exchange of information,

³⁸⁸ *ibid*

³⁸⁹ JW Dellapenna 'The International Law Associations Berlin Rules on water resources and their relevance to Australia' (2004) available at <http://www.icewarm.com.au/userfiles/File/Berlin%20Rules-Relevance%20to%20Australia.pdf> (accessed October 2007)

³⁹⁰ *ibid*

³⁹¹ *ibid*

harmonization of national policies, notification of projects or activities and continued consultation through the establishment of joint management institutions.³⁹²

They implement ERU stressing the need for “due regard” to the avoidance of harm principle. No *a priori* preference of usage except for the fulfillment of basic human needs. They update the factors listed for the determination of ERU by including natural features, social and economic needs of states, the extent of each state’s dependence on the waters in question and the effects of one state’s uses upon the other state. It further takes cognizance of existing patterns by considering consumption, existing and potential uses and the availability of alternatives.³⁹³

The ILA began its study of the law governing international watercourses in 1954 and objects to the inclusion of waters under national jurisdiction within the scope of the Berlin rules.³⁹⁴ They feel that the WRC has not satisfactorily merged the distinct bodies of national and international laws. The remnants of references to transboundary waters litter the chapters while it fails to recognise that equitable use has long been the mantra of international water law as opposed to the equity/efficiency/sustainability triad operating in domestic legislation.³⁹⁵

The effect of equitable and reasonable use as laid out in art 4 of the 1966 Helsinki rules apportions a right of entitlement to a equitable share of the benefit uses of the waters of a transboundary watercourse not to an equal share of the waters. The drafters of the rules fail to take cognizance of this fact and they make no mention of rights, entitlement or beneficial uses but rather imposes a duty to “manage water in an equitable and reasonable manner” in art 12.³⁹⁶

³⁹² Berlin Rules on Water Resources (2004)

³⁹³ *ibid*

³⁹⁴ ‘ILA Berlin Conference 2004 - Water resources committee report dissenting opinion’ published by the International water law project available at http://www.internationalwaterlaw.org/intldocs/ila_berlin_rules_dissent.html(accessed December 2007)

³⁹⁵ *ibid*

³⁹⁶ *ibid*

The emphasis is on this duty of states throughout the report and it seems that the objective has been to design a declaration that affords greater ecosystem protection. It seems that the WRC has made water law incidental to all encompassing environmental law and has, in art 12 and 16, attempted to make the principle of ERU as subordinate to the no-harm rule.³⁹⁷

While the elimination of the domestic- international divide is crucial, ERU should maintain its place as the primary agent of integrity. Adoption of the rules threaten to abrogate the CIL developed on equitable utilisation since 1966 as well as being contrary to the principles laid out in the UN convention and the rulings of the ICJ in the Gabcovo-Nagymaros case.³⁹⁸ Although the WRC has stated that its goal was the progressive codification of international law yet it has contradicted existing customary law and struck at the foundations of the Helsinki rules and subsequent resolutions of the ILA.³⁹⁹

Furthermore, the draft rules fail to distinguish between rules of law and emerging principles or merely desired law as they have stated rules that have not passed the tests for formation of CIL. This detracts seriously from the reliability and utility of the draft rules. They could pass off this shortcoming through usage of the hortatory "should" as opposed to the obligatory "shall" yet this modification has been avoided in the draft rules.⁴⁰⁰ The adoption of the rules would make for a radical and unwarranted departure from the largely successful regime established by the ILA and would greatly diminish the legitimacy of watercourse law and the ILA.⁴⁰¹

Conclusion:

While the lengthy and inclusive process that has marked the formation of IWL has led to an impressive body of law, the lack of consensus regarding the

³⁹⁷ *ibid*

³⁹⁸ *ibid*

³⁹⁹ *ibid*

⁴⁰⁰ *ibid*

⁴⁰¹ *ibid*

function and positioning of laws has had a negative impact on the effectiveness of the regime. As a result, water law has consistently failed to take its rightful place as a leading aspect of international law.

Departures from the established norms of IWL represent the dynamic nature of the regime yet are seen by many as damaging to the unity of the regime and decreasing its utility. While the Berlin rules have the potential to be divisive, they are the natural progression of water law and thus serve to advance the regime and the norms contained therein.

The lack of consensus indicates the urgent need for, and great difficulty in formulating, a body of universally accepted norms that are flexible enough to accommodate emerging trends and challenges without requiring the consent of the magnitude of actors in this field. Such norms would need to be backed by an organization with enough legitimacy to properly bind states and as yet there is no such institution in existence. It is crucial that the work begins on constructing environmental bodies with these abilities and the foundations are laid in the norms themselves.

6. The utility and status of water norms:

So far our study has indicated that IWL is the product of intense and comprehensive debate which has pointed out several controversial aspects. Three central issues dominating the drafting of the UN convention were:⁴⁰²

1. The status of existing treaties and the effect on existing and future agreements
2. The relationship between the principles of "equitable and reasonable use" and the no harm rule.
3. The ability of a framework agreement to house compulsory dispute settlement clauses.

⁴⁰² Wouters et al op cit 9 at 15

A discussion of these issues will aid our understanding of IWL and assist us in visualising future norms capable of adequately tackling the challenges facing the legal regime governing interactions over water resources.

The Convention in its Relation to Existing and future Watercourse Agreements

The discussion around the relationship between the UN convention and treaties yielded some of the clearest indications of the status of some of the principles housed in the UN convention. It was at this point that some riparian states, notably Portugal and Ethiopia, first argued that some parts of the UN convention must be considered not only as existing customary rules but as rules of *jus cogens* and as such, could not be derogated from by any other norm of international law, including treaty provisions.⁴⁰³ Under art 64 of the VCLT this could have meant the lapse of all existing watercourse agreements with contradictory rules.⁴⁰⁴ This point was emphasized by countries such as Egypt, France and Switzerland which argued in favour of the retention of existing treaties and the compromises they house.⁴⁰⁵ It is interesting to note that the opposing parties contain states from both upper and lower riparian states. This demonstrates that the issue was not affected by geographical positioning as much as which nations were well served by existing watercourse agreements.⁴⁰⁶

Eventually a deal was struck and the text of article 3(1) provides that “[n]othing in the present Convention shall affect the rights or obligations of a watercourse State arising from agreements in force for it on the date on which it became a party to the present Convention.”

This meant that states wishing to maintain existing treaties carried the day but, as a concession to those that wished to do away with them, art 3(2) urges states to align approaches and “...*may, where necessary, consider*

⁴⁰³ Wouters op cit 210 at 13

⁴⁰⁴ Caflisch op cit 312 at 9

⁴⁰⁵ Wouters op cit 210 at 13

⁴⁰⁶ Caflisch op cit 312 at 9

*harmonising such agreements with the basic principles of the present convention...*⁴⁰⁷

However, this concession is virtually without substance. The language used in art 3(2) contains the hortatory “may” as opposed to the more obligatory “shall” and it is clear there will be little harmonization. If *jus cogens* status were conveyed it would require the amendment of existing treaties with or without the consent of States Parties in conformity with the law of treaties. The convention is too vague when implying which basic principles should be applied in this harmonisation and it indeed would be up to the states involved to do so which can be accomplished only by consent. In short art 3(2) does not go much beyond stating the obvious that existing agreements may be amended with the consent of all the states parties to them.⁴⁰⁸

The relationship of the convention to future agreements was again hotly contested yet art 3(3), which deals with this issue survived virtually unchanged from the original ILC drafts.⁴⁰⁹ The article provides that states “...may enter into new agreements which apply and adjust the provisions of the present Convention to the characteristics and uses...” of the specific watercourse.⁴¹⁰

While the verb “apply” seems to indicate a requirement of homogeneity between future agreements and the convention, the following verb “adjust” would suggest that a degree of deviation is acceptable.⁴¹¹ This view is strengthened by the words “may enter” which imply that whoever is free to conclude a treaty based on the principles of the convention is as justified in entering a convention which departs from them.⁴¹²

Thus the gathered states took the view that ERU was not to be considered *jus cogens* but Article 3 and the acceptance of the UN convention by the

⁴⁰⁷ UN Convention on the Non-navigational uses of International Watercourses (Draft articles)

⁴⁰⁸ Caffisch op cit 312 at 10

⁴⁰⁹ *ibid*

⁴¹⁰ UN Convention on the Non-navigational uses of International Watercourses (Draft articles)

⁴¹¹ Caffisch op cit 312 at 11

⁴¹² *ibid*

international community at large dictates that governments need to consider the provisions of the treaty when interpreting their existing agreements.⁴¹³ Any treaty that contradicts the principle of equitable and reasonable use surely is contrary to IWL and a breach of international law, yet the net result of these conclusions about art 3 were that states were allowed to negotiate their own water sharing agreements but must consider the provisions of the treaty when formulating any new measures or interpreting old ones.⁴¹⁴ The principles housed in the convention are consigned to the status of guidelines and the conventional freedom of States is fully maintained.⁴¹⁵

While a review of international practice does not reveal many examples of states wishing to participate in a watercourse agreement would be denied such a request, there have been cases where states are loath to participate in agreements for fear of limiting their freedom and compromising the viability of their riparian activities.⁴¹⁶ By denying the elevation of ERU to *jus cogens* status, states have failed to prevent situations of deliberate deviation from the law and it is ultimately the unity of water law that suffers. It is of the utmost important that a high level of accord be apportioned to the rule of equitable and reasonable utilization in interpreting any existing treaty or formulating a new one.⁴¹⁷

It is unfortunate that states did not make better use of this crucial chance to cement the objectives of water law by using the idea that *jus cogens* norms form policy principles relevant to all levels of decision making. The Leader of the ILC Hersch Lauterpacht in his commentary to the 1953 draft articles of VCLT stated that *jus cogens* norms were “...such overriding principles of international law that they may be considered constituting principles of international public policy...”⁴¹⁸

⁴¹³ Wouters op cit 210 at 14

⁴¹⁴ *ibid*

⁴¹⁵ Caffisch op cit 312 at 12

⁴¹⁶ Wouters op cit 210 at 16

⁴¹⁷ *ibid*

⁴¹⁸ Allain op cit 30 at 537

Thus it is possible that including ERU as a norm considered to be part of this most important corpus, a higher status could be afforded to the important field of water law as they would be elevated to the level of international public policy. There could be little doubt that water law deserves such a status as water issues are generally agreed to be one of the greatest challenges facing the global community.

Elevation would have had a greatly positive effect on security in that water law would have been brought under the purview of the UNSC and that they would be compelled to consider a mandate for protection of scarce water resources. This could only have a positive effect on stability and would further strengthen the legitimacy of the body of law and the UN itself.

Relationship of No-harm and ERU:

ERU and the no-harm principle are often viewed as conflicting or competing⁴¹⁹ and the relationship between the two ideas was the most hotly contested aspect of the draft articles.⁴²⁰ The burning question was which of these rules should prevail in times of insufficient reserves to meet the needs of all respective role players.

When this question first arose, in the context of the Helsinki rules, the ILA considered the principle of equitable and reasonable utilization their guiding principle.⁴²¹ Accordingly, the no-harm rule formed part of a series of elements to be considered when determining whether a usage was equitable and reasonable.⁴²² The no-harm rule was to be activated only if a planned new or expanded use was likely to exceed the bounds of what was equitable and reasonable and thus already illegal.⁴²³

⁴¹⁹ Hilderling op cit 7 at 88

⁴²⁰ Wouters op cit 210 at 17

⁴²¹ Caflisch op cit 312 at 12

⁴²² *ibid*

⁴²³ *ibid*

In the 1991 draft articles the no-appreciable harm rule was not only completely detached from ERU but was considered the cornerstone of the regime.⁴²⁴ Under that rule, a new use that may cause appreciable harm would not be permitted even if it was considered equitable and reasonable under articles 5 and 6. However, the no-harm rule held the ascendancy over ERU for only a short while as even a lowering of the standard of its threshold of acceptable harm from appreciable to significant could not gain the popularity necessary to prevent ERU from becoming the dominant rule.⁴²⁵

The dominance of ERU is partly attributable to the shortcomings of the no-harm rule which did not allow for the settlement of disputes over allocation of fully or over utilised watercourses.⁴²⁶ In such a case it would give complete priority to existing uses and prevented further development.⁴²⁷ Furthermore, the no-harm rule is heavily weighted in favour of lower riparians and, if it remained dominant, would maintain the status quo of favourable rights for downstream countries and retarded development in upstream nations.⁴²⁸

Indeed, the Helsinki rules make no mention of a principle that would enjoin coriparians from causing each other harm. Art V of the rules enumerates several factors determining the equitable and reasonable share mentions among them "the degree to which the needs of a basin State may be satisfied, without causing substantial injury to a co-basin State." In other words, harm caused to the watercourse is an element to consider but not the decisive factor. This is so because in a fully exploited watercourse, any new activity would be prohibited as harmful to present users and uses.⁴²⁹

The fact that at present almost any use of freshwater might lead to harm because of overexploitation is often cited as the primary reason for considering ERU as more suitable for regulating water allocation.⁴³⁰ However

⁴²⁴ Wouters op cit 210 at 17

⁴²⁵ *ibid* at 18

⁴²⁶ Caflisch op cit 312 at 12

⁴²⁷ *ibid*

⁴²⁸ *ibid*

⁴²⁹ *ibid*

⁴³⁰ Hildering op cit 7 at 97

these days, the prohibition of certain harm seems all the more urgently needed.⁴³¹ Even insignificant pollution can be considered inequitable when it involves contamination of pristine resources.⁴³²

Perhaps this suggests that the no-harm rule is more suited to conflicts over pollution problems as it provides a less flexible standard and provides a structured way to balance the processes responsible for generating pollution and the environment that receives it.⁴³³ Unfortunately, this approach has proven severely limited in that although it considers the main parties in a dispute, it fails to integrate other more external factors into the equation.⁴³⁴ Thus it ignores important factors such as other existing or potential uses, alternatives to the planned usage and fails to produce the holistic approach needed in this field.⁴³⁵

Another argument is that the no-harm principle can be primarily regarded as a principle for demarcation rather than cooperation.⁴³⁶ The “mitigated-no-substantial-harm” rule may also lead to unequal bargaining positions of states as the rules foundation in the prohibition on significant harm and focus on “competing interests” create adversarial positions.⁴³⁷ However, cooperation is as much a condition for proper implementation of the no harm rule as it is for the rule of ERU.⁴³⁸ Thus it is increasingly argued that the two rules supplement each other.⁴³⁹

In fact, there are several advantages of utilising the umbrella of ERU compared to stick of the no-harm rule. ERU provides an opportunity for parties to a dispute to present all relative factors placing all actors on a more equal footing and facilitating a more “needs based” approach.⁴⁴⁰ This in turn

⁴³¹ *ibid*

⁴³² Wouters op cit 210 at 35

⁴³³ *ibid* at 33

⁴³⁴ *ibid*

⁴³⁵ *ibid* at 34

⁴³⁶ Caflisch op cit 312 at 11

⁴³⁷ Wouters op cit 210 at 33

⁴³⁸ Hildering op cit 7 at 97

⁴³⁹ *ibid*

⁴⁴⁰ Wouters op cit 210 at 34

increases the development and utilisation of technical expertise and cooperation.⁴⁴¹ We could envisage a time when a planned project can be integrated into a plan or treaty for any watercourse using negotiated measures and thus still be considered equitable and reasonable.⁴⁴² In other words a polluting process could adequately fulfil the standards proposed by ERU if it entails effective mitigating efforts such as effluent treatment or other technological solutions. ERU has the added benefit of considering all factors relevant to pollution damage through linkages that are not directly tied to pollution but need consideration in the more general interaction of the states involved.⁴⁴³

Many commentators stress the need for use of the no-harm rule as it offers the greatest level of protection for ecosystems but it should be obvious that implementation of ERU should be able to achieve the same goal as increased environmental pressures ensure that these imperatives receive a greater share of the force granted to ERU.⁴⁴⁴

Art5 of the UN Convention determines the legal entitlement for use while art 7 describes the standards that governments must fulfil when utilising the shared resources. Thus the level of pollution permitted must be in accordance with the rule of ERU. The no-harm rule does however retain its utility due to the fact that it can have important effects for litigation and compensation in cases of damage. It is perhaps a good way to apply ERU as an effective way preventing harm, not only from pollution but also from practices that could be considered unreasonable.⁴⁴⁵

It is in this way that ERU incorporates the no harm rule and in fact makes more effective use of it by applying another level of interpretive guidance.⁴⁴⁶ Art 7 was controversial in the drafting process as it seemed to contradict ERU but the final draft eliminated this problem by emphasising the need to consider

⁴⁴¹ *ibid*

⁴⁴² *ibid*

⁴⁴³ *ibid*

⁴⁴⁴ *ibid*

⁴⁴⁵ *ibid*

⁴⁴⁶ *ibid*

articles 5 and 6, which house the rule of ERU, in any problem relating to the no-harm rule.⁴⁴⁷ This places the no-harm rule securely subordinate to the rule of ERU yet retains its role in mitigation of damage and determinant of standards needed for determination of liability and compensation.⁴⁴⁸ It is interesting to note that the Berlin rules article 12 on equitable utilization includes due regard for the no harm principle while art 16 on the avoidance of transboundary harm makes mention of the right to equitable and reasonable use of waters.⁴⁴⁹

This ranking of the norms housed within the UN convention and Berlin rules seem to be consistent with CIL as confirmed by judicial practice. In its ruling on the Hungary case, the ICJ restates that the convention is an accurate statement of CIL and twice refers to ERU. It does not even mention the no-harm rule, despite Hungary's heavy reliance on the principle.⁴⁵⁰ This authoritative ruling clearly defines ERU's superior position and that the avoidance of harm is only to be considered in determining whether certain usages are equitable and reasonable.⁴⁵¹ The discussion indicated that ERU is an extremely functional and pragmatic way of dealing with water allocation and provides ample time for discussion, cooperation and the holistic weighing of all relevant factors.

Compliance and dispute avoidance in the weakened system:

Water scarcity is an increasingly inflammatory subject and it would seem that a uniform method for dealing with the disputes is required. Yet so far the world has failed to create a binding framework and current investigation, compliance and enforcement mechanisms remain weak.⁴⁵²

The ability of conventions to house dispute settlement and compliance regimes was a highly controversial issue during the drafting session.

⁴⁴⁷ Dellapenna op cit 20

⁴⁴⁸ ibid

⁴⁴⁹ Hilderling op cit 7 at 97

⁴⁵⁰ Dellapenna op cit 20

⁴⁵¹ ibid

⁴⁵² ibid

Especially vexing were the questions of whether a framework treaty should house such mechanisms and to what extent they should be compulsory. While one group favoured binding dispute resolution, others considered such an approach too rigid and thus unsuitable for a framework convention.⁴⁵³ Some states went as far as arguing for complete discretion on the part of the state. In its final form, art 33 represents a compromise between the opposing parties. Aside from recommending the usual forms of dispute resolution, it provides for compulsory fact finding, which takes on the form of a conciliation procedure in the UN convention.⁴⁵⁴

Distinct from the practice of recent global environmental agreements, the UN convention does not house a compulsory compliance monitoring system. It seems that much of the compliance monitoring occurs on the regional level where states have ratified the agreements more widely.⁴⁵⁵

Indeed, standing judiciaries and specialized bodies are being formed on the regional scale. Importantly for our purposes, the UN Convention urges all regional or other watercourse agreements to contain compulsory dispute settlement clauses referring all disagreements to peaceful settlement with the ICJ or other, more specific tribunals. Although many basin agreements have failed to incorporate such clauses within their articles, there is a trend towards greater acceptance of peaceful settlement methods. The Southern African Development Community's (SADC) Revised Protocol on Shared Watercourses provides a good example and specifically states:

"1. Any dispute arising between two or more member States from the interpretation or application of this Protocol which cannot be settled amicably shall be referred to the Tribunal for adjudication under Article 16 (1) of the

⁴⁵³ Wouters op cit 210 at 45

⁴⁵⁴ Ibid at 23

⁴⁵⁵ 'Geneva Strategy and Framework for monitoring compliance with agreements on transboundary waters' (1999) United Nations Economic and Social Council MP.WAT/2000/5 available at www.unece.org/env/water/publications/documents/guidance.pdf (accessed November 2007)

*Treaty of SADC.*⁴⁵⁶

It appears from this example that treaty law relating to water resources specifically prohibits resort to force with regards to securing water resources. However many of the over 500 international regimes governing freshwater resources, few have compulsory compliance systems.⁴⁵⁷ It remains to be seen whether conventional water law alone will be adequate to deal with the threats posed by changing climate patterns and increased consumption on a global scale. It does, however, pose a significant obstacle to the use of force in situations of scarcity.

Again we are struck by the interaction between water law and international principles and the important implication the elevation of ERU could have for all fields. Unfortunately, we are again struck by the inanity of denying ERU heightened status. Bringing ERU under the mandate of the UNSC would have provided an effective method for ensuring compliance with water law and IEL more generally. It is even possible that allowing water *jus cogens* status could have been ideal opportunity to establish the universal jurisdiction so sought after by IEL.

However, lacking this power we are forced to rely on traditional measures for dispute resolution. It is generally agreed that three forms of peaceful dispute resolution have been identified, each with their strengths and weaknesses. Unilateral, bilateral and multilateral dispute resolution all follow differing paths with varied results and eventualities characteristic of their nature.⁴⁵⁸

The pursuit of unilateral measures with regard to shared water resources is not usually viewed as a favourable option for dispute resolution. It often has the effect of increasing tension and the level of conflict. It seldom solves disputes but rather sees the imposition of one state's will over another. Power imbalances manifest in many ways but when the stronger nation is a lower

⁴⁵⁶ SADC Revised protocol on Shared Watercourses Art 7 s 1

⁴⁵⁷ 'Geneva Strategy and Framework for monitoring compliance with agreements on transboundary waters' op cit 455 at 6

⁴⁵⁸ Mc Gregor op cit 222

riparian they often resort to aggression or military threat to achieve their ends. While it has the potential to produce speedy, if unfair, resolution, it is the fear of aggression and the weakening of state sovereignty that has led the international community to frown on unilateral actions.⁴⁵⁹

Discussion is always a positive option when dealing with international interaction and bilateral solutions can be effectively implemented between friendly nations. However, it by no means guarantees a resolution or even a peaceful dispute process and failure to reach agreement can exacerbate already strained relationships. Bilateral negotiations can be time consuming and tend to encounter many obstacles. Never the less, bilateral relations at the very least signal an intention to cooperate in managing shared water resources.⁴⁶⁰

Multi lateral resolution is seen by many commentators as the ideal way to ensure fair, participatory solutions to water disputes. The multilateral process can take many forms from third party mediators to settlement through an international forum bound by international jurisprudence. Wider involvement of the international community in water disputes is seen as resulting in more equitable resolutions and more likely to produce enduring compliance due to greater enforcement capability. However, it may also lead to confusion through over involvement. There remains no power capable of regulating water disputes or any form of standing water authority.⁴⁶¹ A compliance procedure with enough strength to hold errant parties accountable is desperately needed yet none is forthcoming.

Compliance is an integral part of implementation and refers to a states' behaviour in terms of conformity with its treaty obligations.⁴⁶² A compliance system is a set of treaty rules or procedures that are aimed at assessing,

⁴⁵⁹ Ibid

⁴⁶⁰ Ibid

⁴⁶¹ Ibid

⁴⁶² 'Geneva Strategy and Framework for monitoring compliance with agreements on transboundary waters' op cit 455 at 6

regulating and ensuring state compliance.⁴⁶³ It is usually put in place to identify acts of non-compliance including states' failure to comply with substantive norms or standards, or to fulfil procedural elements or institutional obligations.⁴⁶⁴

Compliance depends on a states willingness or ability to meet certain treaty obligations. Thus a compliance regime must anticipate the reasons for state non-compliance and seek to provide a framework for overcoming these difficulties. Thus review is integral to ensure the maintenance of the integrity of a regime.⁴⁶⁵

A response to problems with compliance that, in the first instance, is positive, forward-looking, non-confrontational and non-judicial and, is supplementary to, independent from, any dispute resolution regime. Compliance regimes are greatly enhanced by the elaboration of clear primary rules. These rules should be encompassed in legally binding documents but soft law measures add increased protection to watercourses.⁴⁶⁶ It seems that ERU fulfils these criteria perfectly and, if properly applied, could have greatly beneficial effects for transboundary water dispute resolution.

Clarity of Equitable and Reasonable Use:

It is sometimes argued that what constitutes a reasonable and equitable share is often not clear.⁴⁶⁷ Equal access can in no way be equated with equal use and differing capacities can have detrimental effects.⁴⁶⁸ A problem of divergence arises however, when we apply these northern formulated ideas to developing, arid regions as a lack of capacity transforms the ideal of

⁴⁶³ *ibid*

⁴⁶⁴ *ibid*

⁴⁶⁵ *Ibid* at 4

⁴⁶⁶ *ibid*

⁴⁶⁷ Dellapenna *op cit* 20

⁴⁶⁸ *ibid*

“equitable and reasonable utilization” to an unattainable goal and creates the very disputes it seeks to prevent.⁴⁶⁹

Thus, even when ERU is in use, nations will disagree on the proper standards of sharing and interpretations or application of the rule.⁴⁷⁰ Thus it seems that one of the greatest challenges facing the ERU regime is whether it can move past being a vague obligation of fairness to an articulate expression of the desire to equally apportion benefits. Some scholars argue that conflict cannot be avoided under ERU without a clear definition of its scope and the content of its standards.⁴⁷¹

In the UN convention, art 6 attempts to provide some clarity with a long list of relevant factors to be considered. Furthermore, the concepts of equity and reason are well established concepts in legal thought. The reasonable man test is the cornerstone the law of torts and has worked well for centuries. Similarly, “equitable principles” form both the basis and end objective of delimitation in aspects of the law of the sea.⁴⁷²

The statute of the ICJ calls on the court to settle some cases purely on the principles of “*ex aequo et bono*”⁴⁷³ which is translated to mean “*of equity and conscience*”⁴⁷⁴ and suggests a widely accepted definition of the term equity. Indeed, the concept of equity has been explored at length and is found to contain several elements.

Intergenerational equity establishes the idea that this equality can be passed down to future generations.⁴⁷⁵ The public trust doctrine further strengthens this approach by making the state the trustee or steward of the

⁴⁶⁹ R B St. John *The Bolivia-Chile-Peru Dispute in the Atacama Desert* (Durham, United Kingdom: International Boundaries Research Unit 1994) at 20

⁴⁷⁰ Dellapenna op cit 20

⁴⁷¹ *ibid*

⁴⁷² Wouters op cit 210 at 44

⁴⁷³ Statute of the ICJ art 38(2)

⁴⁷⁴ ‘Legal definition of *ex aequo et bono* - The Free Dictionary’ available at <http://legal-dictionary.thefreedictionary.com/Ex+aequo+et+bono> (accessed March 2008)

⁴⁷⁵ Christine A Klein ‘On integrity: some considerations for water law’ (2005) Vol. 56:4 *Alabama Law Review* at 6

environment.⁴⁷⁶ In many instances, present water uses are prioritised over future uses, allowing present populations to exhaust non-renewable water resources at the expense of future generations.⁴⁷⁷

It is interesting to note that equity in this context contains a geographical dimension. Although the disconnect between supply and demand has been tackled through increasingly technological water transfer mechanisms, every drop taken is a drop lost to another user in space.⁴⁷⁸ As a consequence engineered movements of waters are at their core a matter of redistribution of wealth with readily identifiable winners and losers.⁴⁷⁹

Generally, there is a failure to properly appreciate the rule's flexibility and amplitude.⁴⁸⁰ ERU is highly dynamic and therefore can adapt to changing perceptions or needs. It is not frozen in the predominant theory of a certain time period but can shift emphasis in responses to emerging challenges.⁴⁸¹ Thus it fits the temporal dynamics of today's legal structure, allowing emerging trends to be incorporated into the corpus of GIL. Offers an ideal administrative portal for would be regulators of commercial withdrawals but also perfect process for elevation to GIL.

Furthermore, ERU creates the ideal climate for meeting basic needs as it can be reasonably expected of governments to ensure that all individuals have access to sufficient quantities to meet their basic human rights requirements. ERU is directly concerned with allocation of water rights and implementing the rule would surely demand that all basic needs are catered for.

Conservation of water resources:

⁴⁷⁶ *ibid*

⁴⁷⁷ *ibid*

⁴⁷⁸ *ibid*

⁴⁷⁹ *ibid*

⁴⁸⁰ Wouters op cit 210 at 48

⁴⁸¹ *ibid*

A largely unfounded criticism of the UN convention is that it fails to address environmental imperatives.⁴⁸² However it must be recognised that the goal of the convention is not to design an environmental conservation package but rather to define the framework whereby states can develop their water resources and to distribute rights by developing what it identifies as three key stages in the formulation of an integrated approach.⁴⁸³

Attempts to strengthen the convention's ecosystem orientation by including concepts such as sustainable development, precaution and protection of the environment in the general principles failed to materialise in the draft articles. Perhaps the imperative to evaluate water-related environmental issues was beyond the purview of the ILC charged with the progressive codification of international law. They chose instead to consider the possible range of uses and behaviours attributed to states and the possible pollution produced by each.⁴⁸⁴

The normative development effort on the part of the ILC to introduce the ecosystem concept to international watercourse law has been admitted even by its critics. Indeed the convention and ERU are not aloof to environmental concerns, seeking to incorporate sustainable utilisation in a more legally meaningful way. The green provisions – arts 5, 6, 7, 20, 21 and 23 adequately reflect and implement these notions and not only allow but require states to attain optimal and sustainable utilization.⁴⁸⁵

Some parties were of the opinion that sustainable use should be the overarching principle of the convention as it encompassed such notions as the precautionary principle and the necessary ecosystem protection.⁴⁸⁶ Interestingly, the final draft of the UN convention contained a reference to sustainable utilisation in article 5, thereby taking cognizance of the close

⁴⁸² P Wouters and S. Salzman, *The Legal Response to the world's water crisis: What legacy from The Hague? What future in Kyoto?* (2001) available at www.africanwater.org/Documents/colorado_draft_4.doc (accessed March 2007)

⁴⁸³ *ibid*

⁴⁸⁴ Wouters *op cit* 210 at 45

⁴⁸⁵ *ibid*

⁴⁸⁶ *ibid*

relationship with equitable and reasonable use. It must be recognised that equitable utilisation and sustainable utilization can differ greatly as states can agree to share water equitably but unsustainably.⁴⁸⁷

If international law is to meet the challenges facing ecosystems worldwide, sustainable development cannot remain on the periphery but must move to the conceptual core of international water law.⁴⁸⁸ Indeed the absence of sustainable development from the core of water law is a significant shortcoming. It is often queried whether it is necessary to introduce new concepts, often as vague as the ones already in use.⁴⁸⁹ There is much to be gained from harnessing the normative force carried by sustainable development derived from its inclusion in other more general treaties such as the New Delhi Declaration.

However, it should not be greatly problematic to place ERU into the wider context of sustainable development as reasonable utilisation dovetails well with sustainable utilisation, given our knowledge of the interdependent relationship between development and environment.⁴⁹⁰ The concept of sustainable development adds extra element of normative force and a place in the consciousness of the greater population. The greater access granted to the general population by incorporating well established concepts such as sustainability, equity and reason facilitates the interdisciplinary response so required by water related issues.

By incorporating sustainability into the equation, we afford the watercourse itself a greater level of protection while also providing its interface with the commercial world, something which human rights based approaches fail dismally to do. In addition, sustainability provides the maximum effect to the precautionary effort possible or could we attempt to get the maximum extent possible. Coupling sustainability with ERU provides us with an important tool for address non state actors by requiring a higher level of ethics from them.

⁴⁸⁷ *ibid*

⁴⁸⁸ *ibid*

⁴⁸⁹ *ibid*

⁴⁹⁰ *ibid*

ERU can work on multiple levels, all the way from supra national organizations, to countries to corporations right down to individuals and it is possible that fines could be given for inequitable or unreasonable use.

It is a viewpoint that is shared by many regional bodies around the planet as evidenced by the SADC revised protocol which states that measures that '...advance the sustainable, equitable and reasonable utilisation of the shared watercourses...' ⁴⁹¹ must be adopted.

A rule of sustainable, equitable and reasonable utilization would also fulfil Brierly's desire to annex aspects of domestic law to international law. The ILA dissenters to the Berlin Rules argue that it is unwarranted to apply the equitable and reasonable paradigm to the domestic level, which has operated well using an equity, efficiency and sustainability triad of rules. ⁴⁹² By integrating sustainability into the concept of ERU, it easily assimilates the domestic triad and is applicable at such a level. It is after all, unreasonable to use water inefficiently while we cannot deny the utility of applying internationally accepted standards at a national level. Given the internationalising nature of water usage it may be foolhardy not to attempt such action.

Conclusion:

ERU is an important emerging norm as it creates the ideal for climate for providing basic needs requirements and ensuring that all actors' needs are catered for. Furthermore it generates a holistic approach to water management and ensures that consultative processes are followed throughout water negotiations. Therefore ERU builds legitimacy through participation, transparency and providing a tool to bring MNCs under the regulation of IEL.

⁴⁹¹ SADC Revised protocol art 2(b)

⁴⁹² 'ILA Berlin Conference 2004 - Water resources committee report dissenting opinion' op cit 394

ERU is particularly a strong norm as it incorporates the normative force of the no harm rule and the requirement of cooperation. Adding the well accepted notion of sustainable development would help to bring ERU to the fore of IEL and international law more generally. It is vital that IWL takes on a more proactive role in global governance and the pragmatic principle of ERU allows it to impose judicial force on the world population and lays the groundwork for creating a standing judiciary.

Making ERU *jus cogens* would allow it to become an agent of convergence and harmonization. It fits the criteria for a *jus cogens* norm well as it is accepted by the vast majority of states and seems to serve the contemporary interests of the global community. Further, it provides a means of penetrating the domestic legal setting and allowing IWL to institute regulation on this important scale.

7. Conclusion:

Weaving the structure of water law around pillars of moral strength such as integrity, unity, equity and reason we provide the grounds for unprecedented legitimacy. As we have learnt, the importance of legitimacy goes way beyond its utility⁴⁹³ and it is crucial that the IEL regime and international law more generally, build up a base of legitimacy to enhance its standing in the international community.

Any legal system based on integrity must find its roots in pragmatic reality as well as idealistic possibility. Water law has failed to properly balance the ever-growing nature of water demand with the finite resources at our disposal.⁴⁹⁴ It is important to establish a rules-based regime in order to exert jurisdiction over water conflicts and ERU is central to this. By establishing primary principles, such as those seen in the WTO, the IWL self contained regime can compete against more established regimes and seek primacy for its ends. Water is an area where business withdraws a large amount of greatly

⁴⁹³ Tucker and Hendrickson op cit 33

⁴⁹⁴ Klein op cit 475 at 12

undervalued environmental services and so is an ideal starting point for regulating trade within environmental law.

Elevating ERU to *jus cogens* status would bring it under the ambit of UNSC activity and provide a way for the UN to exert greater force in environmental affairs and for other environmental bodies to gain parity with the WTO. By enforcing environmental norms, the UN can succeed in holding trade bodies and corporations accountable for actions that damage the natural environment and have a negative impact the poor's ability to withdraw valuable environmental services. Few could deny that meeting basic needs of people must gain priority over almost all other fields and ERU is integral to meeting these ends and promoting primacy. Thus ERU should carry at least as much importance as WTO regimes.

It is imperative that we allow international law to penetrate the domestic setting and water law provides a means of doing so. As Brierly noted, the legitimacy in international law is dependentant on annexing some areas of domestic law,⁴⁹⁵ in line with current trends. As much of the damage caused to the natural environment happens on a national level, it is imperative that multilateral bodies utilise all means to achieve this end. Sustainability is a concept vital to fulfilling this end and when coupled with equity and reason, we have a principle with the potential to compete with other regimes and gain parity with trade law.

It is important that we allow environmental norms to become factors in international public policy and limitations on organizations that act beyond the jurisdiction of the nation state. Being such an entity, it is crucial that the UN finds a means to enhance its legitimacy and it seems that the global water crisis provides just such an opportunity. Through providing basic needs and ensuring peaceful interactions over water the UN can go a long way towards improving the lives of the global poor and meeting the desires of much of the world's population. By acting with integrity when making decisions the UN will

⁴⁹⁵ Brierly op cit 19 at 74

greatly improve its reputation and its ability to regulate international environmental actions.

It is imperative to properly utilize ERU's tendency to promote cooperation. Equity is the only possible climate for cooperation and ERU could act as a catalyst for opening cooperative consultations between nations and thus contribute towards security of the planet.

The UN remains the focus of our hopes for a more equitable and peaceful world and, if it properly utilizes the opportunity offered by the water crisis and the concept of equitable, reasonable and sustainable utilisation, it can improve governance actions regarding the environment and as a result, help to legitimize existing global hierarchies.

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