

DOCTOR OF PHILOSOPHY

The protection of foreign investment and its implications for the regulation of water resources

challenges for international investment arbitration

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University of Dundee

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**THE PROTECTION OF FOREIGN INVESTMENT
AND ITS IMPLICATIONS FOR THE REGULATION
OF WATER RESOURCES: CHALLENGES FOR
INTERNATIONAL INVESTMENT ARBITRATION**

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TABLE OF CONTENTS

ABSTRACT	6
PREFACE	8
ACKNOWLEDGEMENTS	10
DECLARATION	12
ABBREVIATIONS	13
CHAPTER 1	15
INTRODUCTION	15
1.1 Introduction.....	15
1.2 Problematique.....	21
1.3 Research Question.....	26
1.4 Why Water? – Scope.....	27
1.5 Why an Analytical Framework that Distinguishes Indirect Expropriation from Legitimate Regulation?.....	28
1.6 Method and Structure.....	29
1.6.1 Chapter 2: The Special Nature of Water Resources.....	30
1.6.2 Chapter 3: The Protection of Foreign Investment.....	31
1.6.3 Chapter 4: The Framework of Analysis.....	32
1.6.4 Chapter 5: Conclusions.....	33
CHAPTER 2	35
THE SPECIAL NATURE OF WATER RESOURCES	35
2.1 Introduction	35
2.2 The Unique Nature of Water Resources.....	38
2.2.1 Water is Finite, it is a System, it is Bulky and it is Non-Substitutable.....	39
2.2.2 The Environmental Perspective.....	42
2.2.3 The Economic Perspective.....	45
2.2.4 The Social Perspective.....	48
2.3 The Global Water Crisis: Pressures over Water Resources.....	50
2.3.1 Pressures on Water Resources	53
2.3.1.1 Demographic Drivers.....	53
2.3.1.2 Economic Drivers	54
2.3.1.3 Social Drivers.....	55
2.3.2 Drinking Water Supply and Access to Water.....	56
2.4 Water Governance: Ownership, Management and Regulation.....	61
2.4.1 Global Governance of Water Resources.....	62

2.4.2	Water Resources Management: The National Law Dimension	68
2.4.2.1	Towards an Integrated Water Management Approach	69
2.4.2.2	Concerns around Hydrological Variability and Climate Change: New Challenges	72
2.4.3	Ownership, Control and Allocation of Water Resources	74
2.4.4	Water Rights and Entitlements: A Fragile Right	81
2.4.5	The Regulation of Water Utilities	85
2.5	Water in the Context of International Investment Arbitration	89
2.5.1	Water Services and International Investment Arbitration	90
2.5.1.1	Aguas del Tunari S.A. v Bolivia	90
2.5.1.2	Biwater Gauff (Tanzania) Limited v United Republic of Tanzania	91
2.5.1.3	Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v Argentine Republic	92
2.5.2	Water Resources and International Investment Law	94
2.5.2.1	Sun Belt Inc. v Her Majesty the Queen (Canada)	94
2.5.2.2	Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany	94
2.5.2.3	Bayview Irrigation District et al. v United Mexican States	95
2.6	Conclusion and Way Forward	96
CHAPTER 3		99
THE POLICE POWER DOCTRINE IN THE CONTEXT OF INDIRECT EXPROPRIATION		99
3.1	Introduction	99
3.2	The Sovereignty of States: A Foundation for the Police Power	100
3.3	The Police Power	109
3.3.1	The Police Power in the United States	111
3.3.2	The Civil Law Traditions of Latin American Countries	116
3.3.3	The Police Power as ‘Limitation’ of Individual Freedoms: What is the Limit to the ‘Limitation’?	117
3.3.4	Conclusions	119
3.4	Obligations of host States under Public International Law	122
3.4.1	Historical Background on the Protection of Alien Property	122
3.4.1.1	The Minimum Standard of Treatment	122
3.4.1.2	Diplomatic Protection	125
3.4.1.3	The New International Economic Order (NIEO)	127
3.4.2	International Investment Agreements (IIAs)	129
3.4.2.1	Early Bilateral Treaties on Navigation and Commerce	129

3.4.2.2	The OECD Multilateral Agreement on Investment.....	131
3.4.2.3	International Investment Agreements (IIAs)	132
3.5	Expropriation.....	136
3.5.1	Direct Expropriation	138
3.5.2	Indirect Expropriation.....	142
3.6	Analysis of the Police Power in the Contexts of International Investment Law and International Investment Arbitration	147
3.6.1	The Police Power in International Investment Law	147
3.6.2	The Police Power Doctrine in Investment Arbitration.....	152
3.7	A Framework of Analysis that Distinguishes Regulation from Indirect Expropriation as Applied to Water Resource Related Disputes	156
CHAPTER 4	160
A FRAMEWORK OF ANALYSIS	160
4.1	Introduction	160
4.2	Regulation versus Indirect Expropriation.....	162
4.3	Classification of a Water-Related Measures that could be Deemed Expropriatory: Measures over Quantity and over Quality.....	165
4.3.1	Regulatory Measures Linked to Quantity of Water Resources.....	168
4.3.2	Regulatory Measures Linked to the Quality of Water Resources	172
4.4	A Three-Fold Analytical Framework to Distinguish Indirect Expropriation from Legitimate Regulation	175
4.4.1	The Nature of Property Rights over Water Resources.....	178
4.4.2	The Definition of Investment.....	189
4.4.3	The Effects of the Measure over the Investor’s Property Rights (Second Stage of Analysis)	197
4.4.3.1	Preliminary Consideration: The Inadequacy of the Sole Effects Approach	198
4.4.3.2	The Level of Deprivation: Economic Impact, Duration and Control over the Investment	201
4.4.3.2.1	The General Approach to the Level of Deprivation.....	201
4.4.3.2.2	A Measure Affecting the Enjoyment of Water Rights May Constitute a per se Substantial Deprivation Due to the Inherent Nature of Water Resources	208
4.4.3.2.3	Assessment of a Possible Partial Expropriation when Water Entitlements have been affected	210
4.4.3.2.4	Additional Elements to Assess the Level of Deprivation: Duration and Control.....	215

4.4.3.3	Level of Deprivation Conclusions and Remarks	219
4.4.4	The Nature of the Governmental Measure	221
4.4.4.1	Public Purpose.....	225
4.4.4.2	Non-Discrimination.....	234
4.4.4.3	Due Process.....	239
4.4.4.4	Assurances Given to the Investor by the Host State: Legitimate Expectations.....	243
4.5	Conclusions	248
CHAPTER 5		252
CONCLUSIONS.....		252
5.1	Introduction.....	252
5.2	A Sector-Specific Approach	252
5.3	Water: Securely Unpredictable and Investment: Predictably Insecure?.....	260
5.4	The way forward and future research	262
5.5	Final Reflections	263
BIBLIOGRAPHY		268
	Primary Sources	268
	Secondary Sources	277

ABSTRACT

A legitimate regulation rarely constitutes an indirect expropriation. Conversely an indirect expropriation will almost always arise from regulatory action that does not conform to international standards of legitimacy and the Rule of Law. Yet, distinguishing regulation from expropriation remains one of the most important challenges in international investment law. The lack of a clear dividing line between legitimate regulation and compensable indirect expropriation creates considerable uncertainty for foreign investors and States alike. The investor-State dispute settlement mechanism was intended to solve investment disputes arising from alleged breaches of standards of protection agreed upon by the home State and the host State of the investor under international investment agreements.

What constitutes a breach of an international obligation has – almost always – been rooted in domestic regulation adopted by host States, which in turn may constitute a breach of a standard of investment protection under international investment law. Therefore, the outcome of an investment dispute will generally require the host State to repeal the regulatory measure or to pay compensation to the investor. For these reasons, the international investment regime has been perceived, in certain academic and political circles, as potentially adverse to the regulatory prerogatives of States. This perception does not consider that States' regulatory prerogatives, exercised under the Police Power, are legitimate under international law; yet, it is common ground that the Police Power of States does not constitute a 'blank exception' to international State responsibility for breach of standards of protection under investment agreements. After all, by signing international investment agreements, States agree to submit disputes arising from their own regulatory action to international tribunals; thereby, limiting a portion of their own internal sovereignty to conform with international obligations negotiated under those agreements.

International investment law, as international trade law, is continuously confronted with the assessment of legality of domestic regulatory measures under international law. It is not infrequent that domestic regulatory measures pursue important welfare objectives which will inevitably have an affect over investors' property rights. Rarely will such measures be deemed expropriatory provided they constitute a legitimate exercise of the Police Power

of the host State. Therefore, distinguishing legitimate regulation from indirect expropriation does not only require deep understanding of the nature of the regulatory measure, it also requires scrutiny of the domestic law surrounding the subject matter under regulatory action.

An example of a case where international tribunals may need to scrutinize domestic law is in the area of water resources management. Water has a unique nature due to its physical, economic and social characteristics, all of which in combination put water resources at the heart of social and environmental concerns. Challenges around water management do not pertain exclusively to limited quantities and increasing scarcity, but also to quality issues. In addition, increasing demand as a result of demographic growth, economic globalisation, and larger trade and investment flows trigger fierce competition for water resources, which may potentially be exasperated by climate change. In this vein, increased hydrological variability has an effect on the predictability of water availability, and availability in turn may have an effect on the security of water entitlements. All these factors ought to be considered by investment tribunals when challenged with investment disputes arising from a water-related measure. Regulatory measures affecting the availability of water resources will most likely have serious effects over the development of the investment project, since water has no substitutes. Hence, from a sole effects approach, a regulatory measure affecting availability of water to investors may always be expropriatory, under current investment arbitration frameworks. The analytical framework proposed in this work serves two purposes, in the context of investment arbitration: It details the case for a sector-specific approach to water resources by addressing the special nature of water resources, which should influence the construction of investor's property rights under the domestic law of the host State and the scope of protection of such rights. It also advances a dividing line to distinguish legitimate regulation from indirect expropriation by considering not only the effects of the measure but also the purpose of the measure and the manner in which such measure was adopted by the host State.

PREFACE

In 2000, the residents of Cochabamba, Bolivia led an unprecedented protest known as the ‘Cochabamba water war’. The trigger was the privatisation of the public provider SEMAPA and the sudden and extreme rise of water tariffs. As a result, the government rescinded the concession contract with Aguas del Tunari S.A. (International Water Limited). In response, the investor initiated international arbitration proceedings against Bolivia. The case was settled due to international and social pressure on the investor, and the rest is history.

I find myself playing a dual role in this story. I was a resident of Cochabamba and a legal officer at the regulatory system for public utilities. In my capacity as a legal officer, I understood, with time, that the problem neither started with the privatisation process, nor would it end with the termination of the concession contract. In my view, there are two underlying problems in this scenario: pride of the residents of Cochabamba to pursue their longed ‘Misicuni Project’ that potentially effected their access to drinking water, and prejudice against private providers and foreign investors. I believe that the lack of interdisciplinarity in addressing the abovementioned issue may be explained by the same underlying problems. The absence of communication and exchange between epistemic communities weakens decision-making and prevents holistic solutions. Decision-making is increasingly confronted with the need to interact with science. A good example of this was present in the recent Pulp Mills case at the International Court of Justice.

In the same vein, within the field of law, public lawyers are rarely aware that their decisions will have an effect on international law. When confronted with domestic political and social pressure, domestic decision-makers will not be focused on how their decisions may come under scrutiny from international arbitrators and judges. In turn, international tribunals have had little connection to the domestic realities and pressures under which local decisions were taken; nor do they have the mandate, under international law, to incorporate such considerations. In my work, I propose a scenario of wide concern to test such a situation; where domestic action has the potential to effect international obligation: namely water scarcity and hydrological variability, where domestic measures require flexible decisions in order to avert potential conflict. This may sound like the perfect storm for investors.

Yet, as with many academics and practitioners, I believe it is possible to find a middle point where decisions adopted at the domestic level would be considered legal at the international level as well. Undoubtedly, States bear a larger burden of risk and costs than foreign investors, but arbitrators have not been oblivious to this fact so far. It is therefore important for arbitrators to secure predictable outcomes under unpredictable scenarios by compelling States to carefully respect the rule of law when confronted with measures that affect the vested rights of foreign investors.

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This journey would have not started without the support of my friend Dr Melissa Siegel and with her, Metka Hercog a *little sunshine* and everyday companion, Florian Henning who encouraged my sportive spirit along with Melissa, Dr Gar Yein Ng and Roland Schellekens. Their love, patience and support in good but especially bad times, have made them my family away from home.

During the process of writing this dissertation, I have learnt the importance of *mens sana in corpore sano*. I would like to acknowledge the important work of the Institute of Sport and Exercise.

I am indebted to my 'partner in crime' Dr Daniel Behn, who has patiently edited this dissertation. It has been a privilege to share a house with him for the last four years, where inspiring discussions and fierce debates took place.

Le debo todo a mi familia, mis padres, mi hermano y mi tío Oscar, cuyo amor y apoyo han sido fuente de fuerza para continuar. Gracias a la generosidad de mis padres he podido siempre perseguir mis sueños, incluso cuando esos sueños me guien tan lejos de ellos.

Last but not least, I would like to thank my husband and best friend Graham whose love and affection have pulled me, pushed me and held me throughout the most difficult part of this journey. I look forward to the start of a new journey together.

DECLARATION

I declare that, except where explicit reference is made to the contribution of others, that this thesis is the result of my own work and has not been submitted for any other degree at the University of Dundee or any other institution.

Signed:

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Date:

SIGNED STATEMENT BY SUPERVISOR

I, the supervisor, hereby acknowledge that the conditions of the relevant Ordinance and Regulations have been fulfilled.

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Date:

ABBREVIATIONS

Bilateral Investment Treaty (BIT)
Dominican Republic Central American Free Trade Agreement (CAFTA)
Energy Charter Treaty (ECT)
European Court of Human Rights (ECHR)
Fair and Equitable Treatment (FET)
Free Trade Agreement (FTA)
Global Water Partnership (GWP)
Gross Domestic Product (GDP)
Human Development Index (HDI)
Integrated Water Resources Management (IWRM)
International Law Commission (ILC)
International Centre for the Settlement of Investment Disputes (ICSID)
International Court of Arbitration (ICA)
International Institute for Sustainable Development (IISD)
International Investment Agreement (IIA)
International Tribunal for the Law of the Sea (ITLOS)
Methyl tertiary-butyl ether (MTBE)
Millennium Development Goals (MDGs)
Multilateral Agreement on Investment (MAI)
New International Economic Order (NIEO)
Non-Governmental Organisation (NGO)
North American Free Trade Agreement (NAFTA)
Organisation for Economic Cooperation and Development (OECD)
Permanent Court of Arbitration (PCA)
Permanent Court of International Justice (PCIJ)
Permanent Sovereignty over Natural Resources (PSNR)
Petróleos de Venezuela S.A. (PDVSA)
Product Sharing Agreement (PSA)
Public Private Partnership (PPP)
Sociedad Anónima (S.A.)
Stockholm Chamber of Commerce (SCC)
United Nations (UN)
United Nations Environment Programme (UNEP)
United Nations World Water Development Report (WWDR)
United Kingdom (UK)

United States (US)

Vienna Convention on the Law of Treaties (VCLT)

World Trade Organisation (WTO)

CHAPTER 1

INTRODUCTION

Water is the driving force in nature
Leonardo Da Vinci

Whiskey is for drinking, water is for fighting over
attributed to Mark Twain

Most of societies' arguments are kept alive by a failure to acknowledge nuance. We tend to generate false dichotomies and then try to argue one point, using two entirely different sets of assumptions
Tim Minchin

1.1 Introduction

As the law evolves, expands and specialises, the overall normative coherence of particular legal orders can become more elusive. This increases the likelihood for potential conflict arising between different regimes or areas of law, such as between water law and international investment law. On the one hand, water laws and policy are increasingly moving towards a holistic and adaptive approach to the management of water resources. International investment law, on the other hand, covers the obligation to protect foreign investment through stable and predictable legal environments, by means of international investment agreements.

To date, any conflict between these epistemic communities of water lawyers and investment lawyers has been engaged – by necessity – in the context of disputes arising out of international investment obligations. International investment law, and not water law *per se*, constitutes the applicable law to decide potential conflicts between the regulation of water resources and the obligation to protect foreign investment. The proliferation of investment treaties has given rise to specific dispute settlement mechanisms granting jurisdiction to handle investment disputes. In contrast, the fields of international environmental and water law have fairly limited dispute settlement mechanisms embedded in their respective treaties.

At the end of the 1980s and during the early 1990s, the field of international investment law witnessed an explosion of Bilateral Investment Treaties (BITs)

and to a lesser extent other International Investment Agreements (IIAs) such as Free Trade Agreements (FTAs).¹ By the early 2000s, there was an upsurge in the initiation of disputes granted jurisdiction under these BITs and FTAs. International investment disputes allow a private foreign investor to initiate binding arbitration against the state hosting their investment. To date, these cases have primarily been brought under the specific mechanisms of the International Centre for the Settlement of Investment Disputes (ICSID), as well as other arbitration centres, such as the Permanent Court of Arbitration (PCA), the International Chamber of Commerce (ICC) and the Stockholm Chamber of Commerce (SCC).²

During the period between the 1990s and the early part of the 2000s, international investment practitioners and commentators were well aware of the potential disputes arising from the exercise of regulatory prerogatives by Host States in relation to the promises given to foreign investors. In addition to political risk, these commentators, such as Thomas Wälde and Stephen Dow, famously identified a new risk: 'regulatory risk'.³ Perhaps, having observed the Libyan nationalization cases and the cases coming out of the United States (US)-Iran Claims Tribunal, very few investment specialists believed that IIAs constituted a real threat to the regulation of the environment, health and safety. As Wälde and Kolo expressed as far back as the mid-1990s, Non-

¹ UNCTAD reports that by the end of 2011 there were 3164 IIAs of which 2833 were BITs. See United Nations Conference on Trade Development, *World Investment Report 2012: Towards a New Generation of Investment Policies* (New York; Geneva: United Nations, 2012). 84.

² Up to the end of 2011 the number of investor-state disputes reached 450. This year also presented the highest number of dispute recorded so far *i.e.* 46. *Ibid.*, 87.

³ Thomas Wälde and Stephen Dow, "Treaties and Regulatory Risk in Infrastructure Investment. The Effectiveness of International Law Disciplines versus Sanctions by Global Markets in Reducing the Political and Regulatory Risk for Private Infrastructure Investment" *Journal of World Trade* 34, no. 2 (2000); Thomas W. Wälde and Todd Weiler, "Investment arbitration under the Energy Charter Treaty in the light of new NAFTA precedents: Towards a global code of conduct for economic regulation" *Transnational Dispute Management* 1(2004); Thomas Wälde and Abba Kolo, "Environmental Regulation, Investment Protection. and 'Regulatory Taking' in International Law" *International and Comparative Law Quarterly* 50, no. 4 (2001); Andrew Newcombe, "The Boundaries of Regulatory Expropriation in International Law" *ICSID Review* 20, no. 1 (2005); Vaughan Lowe, "Regulation or expropriation?" *Current legal problems* 55 (2002); L. Yves Fortier and Stephen L. Drymer, "Indirect Expropriation in the Law of International Investment: I know it when I see it, or Caveat Investor" *ICSID review: Foreign investment law journal* 19, no. 2 (2004); Howard Mann, "The Right of States to Regulate and International Investment Law," in *Expert Meeting on the Development Dimension of FDI: Policies to Enhance the Role of FDI in Support of the Competitiveness of the Enterprise Sector and the Economic Performance of Host Economies, Taking into Account the Trade/Investment Interface, in the National and International Context* (Geneva 2002); Howard Mann and Konrad von Moltke, "NAFTA's Chapter 11 and the Environment: Addressing the Impacts of the Investor-State Process on the Environment" *International Institute for Sustainable Development, Publication Centre* (1999); M. Sornarajah, "State responsibility and Bilateral Investment Treaties" *Journal of World Trade Law* 20, no. 1 (1986).

Governmental Organizations (NGOs) and other civil society actors may have adopted exaggerated views towards the scope of BITs and their effects over the police power of states. Several commentators agreed with Wälde and Kolo that regulatory measures aimed at protecting the environment, if adopted in good faith and following due process of law, would hardly be challengeable.⁴ It is also relevant to consider that under customary international law, expropriation does not constitute a wrongful act unless it is an exercise in breach of general requirements, among which compensation is quintessential to the right of a State to expropriate. Under this line of reasoning, it is essential to assess when States are not expropriating, but rather are legitimately regulating according to the police power.

Environmental lawyers, among whom some water lawyers could already be identified,⁵ have challenged the legitimacy of these new types of dispute

⁴ Christoph Schreuer, "The Concept of Expropriation under the ECT and other Investment Protection Treaties," (2005); Gary H. Sampliner, "Arbitration of Expropriation Cases under U.S. Investment Treaties: A Threat to Democracy or the Dog didn't Bark?" *ICSID Review: Foreign investment law journal* 18, no. 1 (2003).

⁵ The following examples do not only address water legal experts, but also some jurists, scholars and policy oriented experts that have written on the protection of water resources: Marie-Claire Cordonier Segger, Markus W. Gehring, and Andrew Newcombe, eds., *Sustainable Development in World Investment Law*, Global Trade Law Series (Alphen aan den Rijn: Kluwer Law International, 2011); Edith Brown Weiss, Laurence Boisson de Chazournes, and Nathalie Bernasconi-Osterwalder, eds., *Fresh Water and International Economic Law* (Oxford; New York: Oxford University Press, 2005); Celine Levesque, "Investment and Water Resources: Limits to NAFTA", in *Sustainable Development in World Investment Law*, ed. Marie-Claire Cordonier Segger, Markus W. Gehring, and Andrew Newcombe, *Global Trade Law Series* (Alphen aan den Rijn: Kluwer Law International 2011); Howard Mann, "Who Owns "Your" Water? Reclaiming Water as a Public Good under International Trade and Investment Law" *International Institute for Sustainable Development* (2003); Howard Mann, "International Economic Law: Water for Money's Sake" *International Institute for Sustainable Development* (2004); Howard Mann, "Implications of International Trade and Investment Agreements for Water and Water Services: Some Responses from Other Sources of International Law" available at: http://www.idrc.ca/en/ev-102451-201-1-DO_TOPIC.html, last visited October 2008 (2006); Hugo A. Muñoz, "La administración del agua y la inversión extranjera directa ¿Cómo se relacionan?", in *Estudios en homenaje al Dr. Rafael González Ballar*, ed. Universidad de Costa Rica (UCR) (San Jose: Isolma S.A., 2009); Miguel Solanes, "Water Services and International Investment Agreements", in *Global Change: Impacts on Water and food Security*, ed. Claudia Ringler, Asit K. Biswas, and Sarah Cline, *Water Resources Development and Management* (Berlin/Heidelberg: Springer 2010); Miguel Solanes and Andrei Jouravlev, "Revisiting Privatization, Foreign Investment, International Arbitration and Water" *Serie Recursos Naturales e Infraestructura* 129(2007); Attila Tanzi, "On Balancing Foreign Investment Interests With Public Interests in Recent Arbitration Case Law in the Public Utilities Sector" *The law and practice of international courts and tribunals: A Practitioners' Journal* 11, no. 1 (2012); Paul Stanton Kibel, "Grasp on Water: A Natural Resource that Eludes NAFTA's Notion of Investment" *Ecology Law Quarterly* 34, no. 2 (2007); Joseph Cumming and Robert Froehlich, "NAFTA Chapter XI and Canada's Environmental Sovereignty: Investment Flows, Article 1110 and Alberta's Water Act" *University of Toronto Faculty of Law Review* 65(2007); Vivien Foster and Tito Yepes, "Is Cost Recovery a Feasible Objective for Water and Electricity? The Latin American Experience" *World Bank Policy Research Working Paper* 3943(2006); John D. Leshy, "A Conversation About Takings and Water Rights" *Texas Law Review* 83, no. 7 (2005); Fabrizio Marrella, "On the changing structure of international

resolution mechanisms that permit a private investor in the form of a transnational corporation to sue a sovereign state before an international investment tribunal. The permissions of investor-State dispute settlement under BITs and FTAs has brought back issues that States may have been trying to overcome when they signed IIAs in the first place. Such issues relate to the permanent sovereignty over natural resources, the sovereignty of states linked to their prerogative to regulate, and problems linked to decolonisation, among others.

From a generalist perspective these two epistemic communities, namely investment lawyers and environmental/water lawyers, do not look at the problem from a similar perspective, they do not share the same values, and the interests to be protected are diverse. It was not too long ago that the investment arbitration regime saw as its mandate the application and enforcement solely of investment obligations, as purported in the relevant agreement, as a clear and strict one.⁶ As Professor Hirsh suggests:

thus far no arbitral tribunal has absolved a party to an investment dispute from its investment obligations (or significantly reduced its responsibility to compensate the injured investor).⁷

investment law: The human right to water and ICSID arbitration" *International Community Law Review* 12, no. 3 (2010); Stuart Orr, Anton Cartwright, and Dave Tickner, "Understanding water risks A primer on the consequences of water scarcity for government and business," (World Wildlife Fund, 2009); Carin Smaller and Howard Mann, "A Thirst for Distant Lands: Foreign investment in agricultural land and water" *International Institute for Sustainable Development. Foreign Investment for Sustainable Development Program* (2009); Paul Stanton and Jon Schutz, "Two Rivers Meet: At the Confluence of Cross-Border Water and Foreign Investment Law", in *Sustainable Development in World Investment Law*, ed. Marie-Claire Cordonier Segger, Markus W. Gehring, and Andrew Newcombe, *Global Trade Law Series* (Alphen aan den Rijn: Kluwer Law International, 2011); The International Federation of Private Water Operators (AquaFed), "Bilateral Investment Treaties and the Right to Water: The case of the provision of public water supply and sanitation services.(Submission by AquaFed)," in *Office of the UN High Commissioner for Human Rights: Consultation on business and human rights: Operationalizing the "Protect, Respect, and Remedy" framework on business and human rights* (Geneva 2009); Epaminontas E. Triantafilou, "No Remedy for an Investor's Own Mismanagement: The Award in the ICSID Case Biwater Gauff v. Tanzania," *International Disputes Quarterly. Focus: An Arbitrator's Perspective* Winter (2009), http://www.whitecase.com/files/Publication/cc5f123c-0700-4b93-aef0-a628ebb05bd1/Presentation/PublicationAttachment/b81f3439-af93-4aab-9f45-7c2dee791bc1/IDQ_Winter_2009.pdf; Jorge E. Vinuales, "Access to Water in Foreign Investment Disputes" *The Georgetown International Environmental Law Review* 21(2009); Jorge E. Vinuales, "Iced Freshwater Resources: A Legal Exploration" *Yearbook of International Environmental Law* 20, no. 1 (2011).

⁶ Of course, investment agreements cannot be applied in isolation of other instruments of international law such as the Vienna Convention on the Law of Treaties (VCLT), and principles of international law.

⁷ Moshe Hirsh, "Sources of International Investment Law", in *International Investment Law and Soft Law*, ed. Andrea K. Bjorklund and August Reinisch (Cheltenham, UK; Northampton, MA: Edward Elgar Pub., 2012), 13.

Conversely, in the context of international investment law, the implementation and continuity of environmental regulation is seen by environmental lawyers as dependent on the decision of investment tribunals. The area of international environmental law generally lacks specialised enforcement mechanisms where the protection of the environment is effectively implemented. Due to the dearth of environmental tribunals, many environmental lawyers would like to use economic law forums (such as investment arbitration and World Trade Organization (WTO) dispute settlement mechanisms) as a means of converting trade and investment tribunals into environmental tribunals. While this has certainly been the case in the context of investment arbitration, the WTO has faced similar challenges, and to some extent, there has been some cross-fertilization between the two regimes. In the context of the WTO, Professor Trachtman has adopted an institutional perspective to illustrate the normative and institutional boundaries of the WTO in relation to the applicability or non-applicability of the other fields of law, in their intricate relationships:

one of the phenomena we observe in relation to WTO law is jealousy on the part of environmentalists, labor rights advocates, human rights proponents and others due to the stronger enforceability and sanctions available with respect to violations of WTO law.⁸

It is incontestable that a balance between the protection of foreign investment and the protection of other societal values is needed, to advance economic as well as human development. However, it is a reality that environmental, health and safety regulations – among others – affecting covered investments, constitute the subject matter of investment disputes and that arbitral tribunals are called to scrutinize them. It follows that host States may have to repeal the measure as a way of restitution, or when this is not possible, pay compensation.⁹ In the large majority of cases, foreign investors seek compensation, due to large interests at stake and because the relationship between investor and state is no longer one of trust and cooperation. The core issue examined in this work pertains to the potential tensions that the

⁸ Joel P. Trachtman, "Transcending "Trade and . . ." An Institutional Perspective," SSRN. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=271171, last visited September, 2012(2001). In this article Professor Trachtman coins the term 'penance envy' to argue that not all international law has been created equal, and therefore some field still lack institutions and enforcement mechanism.

⁹ This is the principle of reparation adopted in the case of *Chorzów Factory (Germany v. Poland) 1928 PCIJ (ser. A) No. 17*. For an account of remedies in International Law, see Dinah Shelton, "Righting Wrongs: Reparations in the Articles on State Responsibility" *Symposium: The ILC's State Responsibility Articles. The American journal of international law* 96, no. 4 (2002).

protection of foreign investment has created in relation to the management of water resources. A regulatory measure may deprive the investor significantly of his investment, rendering a property right useless, which constitutes *de facto* or indirect expropriation.¹⁰ These measures contrast with acts of direct expropriation of the investment, where a shift in ownership takes place, depriving the investor of the title and control over the property right.

This work also addresses the application of standards of investment protection to secure long-term economic returns on investments, which include water rights as production inputs from naturally variable water flows that require a flexible management framework to ensure sustainable development and environmental protection. Therefore, this work explores two potentially contradictory sets of values: security and predictability, which are pivotal in the realm of investment law, and variability and adaptability, which are inherent to the nature and management of water resources. The argument develops on the basis of the police power doctrine – or the prerogative of States to regulate – because that doctrine has been consistently recognised by investment tribunals as a legitimate exercise of State sovereignty. However, the notion of the police power needs to be revisited in the context of its foundations and underlying values. In order for the police power to be reasonably invoked and legitimately applied, there must be a dividing line between an act of indirect expropriation and the adoption of a legitimate regulation, which imposes reasonable burdens on investors.

Despite diverse approaches by arbitral tribunals and commentators to the issue of indirect expropriation or regulatory takings, (as referred to by US takings jurisprudence),¹¹ investment tribunals seems to be moving away from contradictory decisions towards a relatively consistent approach within the

¹⁰ Notwithstanding discussion regarding the different notions between *de facto* expropriation and indirect expropriation, as proposed by Veijo Heiskanen for instance in Veijo Heiskanen, "The Contribution of the Iran-United States Claims Tribunal to the Development of the Doctrine of Indirect Expropriation" *International Law FORUM du droit international: The Journal of the International Law Association International Law Forum du droit international* 5, no. 3 (2003). This work will address both terms indistinctly.

¹¹ A description of such cases adopting different approaches to regulatory measures with an effect over investors' rights can be found in Rudolf Dolzer, "New Foundations of the Law of Expropriation of Alien Property" *American Journal of International Law* 75(1981); Rudolf Dolzer, "Indirect Expropriations: New Developments?" *New York University Environmental Law Journal* 11(2002); Rudolf Dolzer and Felix Bloch, "Indirect Expropriation: Conceptual Realignments?" *International Law Forum du Droit International* (2003); Heiskanen, "The Contribution of the Iran-United States Claims Tribunal to the Development of the Doctrine of Indirect Expropriation."

regime of investment arbitration.¹² If this is indeed desirable, as this work suggests, it is also possible to consider the increasing scrutiny that the investment arbitration regime has been subject to as a system that is increasingly interrelated to other fields of knowledge and areas of law.¹³ The admission of *amicus curiae* by arbitral tribunals – beginning with the *Methanex v United States* tribunal – suggests that tribunals are opening up to the advocacy of informed interest groups, such as non-governmental organisations (NGOs).

The development of this fairly young investment arbitration regime has paved the way for the approach adopted by this work. It argues for a sector-specific approach tailored to the particular characteristics and nature of each sector under dispute: in this case, water resources.¹⁴ It is further argued that a sector-specific approach is appropriate for water resources because special consideration is needed in relation to the unique nature of water in order to meet food, energy and water security needs; ultimately all three are essential for human survival. Such emphasis is necessary due to current challenges around increasing water scarcity, in the context of stiffer competition for limited water resources between users in various economic sectors.

1.2 Problematique

Markets for strategic natural resources have had a tendency to swing between liberalization and nationalization. Latin American countries, for instance, have a long history of attracting and rejecting private investment in natural resources and public services, imposing large transaction costs on investors

¹² Professor Andrea Bjorklund explored the increasing reliance of arbitral tribunals on previous decisions which indicates the emergence of a 'Jurisprudence *constante*'. See Andrea K. Bjorklund, "Investment Treaty Arbitral Decisions as "Jurisprudence Constante"", in *International Economic Law: The State and Future of the Discipline* ed. Colin B. Picker, Isabella D. Bunn, and Douglas W. Arner (Oxford: Hart, 2008).

¹³ The admission of *amicus curiae* submissions illustrates the pressure of expert groups and civil society to have access to the proceedings, taking place within this arbitration mechanism. Some examples are: *Methanex Corp. v. United States of America (under UNCITRAL Rules)*, *Azurix Corp. v Argentine Republic*, ICSID CASE No. ARB/01/12; *Biwater Gauff (Tanzania) Limited v United Republic of Tanzania (ICSID Case No. ARB/05/22)*; *Aguas del Tunari S.A. v Republic of Bolivia*, ICSID Case No. ARB/02/3, among others.

This mechanism of dispute resolution was private for many years as it followed the path of its close cousin commercial arbitration; in this vein the regime appears to have opened up to debate and discussion with other fields such as environmental law.

¹⁴ It is noteworthy that this approach is not novel, the Energy Charter Treaty embraced the strategic importance of energy resources and devised an instrument to protect and promote trade and investment in the energy sector.

and consumers who ultimately suffer the consequences of such political swings.¹⁵ This type of expropriation has traditionally been identifiable with the intention of the host State's policy being clearly politically motivated. This type of political risk is nothing new.¹⁶ However, this is not the only risk that investors face in their host countries as Wälde and Dow explain: overt takings of property rights are being replaced by a different kind of interference linked to the use of a State's regulatory powers and the way in which such powers are exercised.¹⁷ The attention and scrutiny has thus turned towards the issue of regulatory risk. This means that the emerging field of international investment law and arbitration is increasingly confronted with the challenge of identifying legitimate (non-compensable) regulation from a compensable indirect expropriation.

Professor Lowe, for example, has expressed the methodological difficulties in addressing the identification of a regulatory measure from an expropriatory one. Professor Stern has proposed a methodological approach to assist in understanding such a distinction.¹⁸ The Organisation for Economic Cooperation and Development (OECD) has extensively discussed the challenges around indirect expropriation,¹⁹ and in more recent years,

¹⁵ The oil nationalisations carried out by Mexico in 1917, followed by Iran (1950's) Cuba (1960's), Libya (1970's), and a few Latin American countries, several of which negotiated later different types of investment arrangements, such as Product Sharing Agreements (PSAs) and other Public Private Partnerships. In South America, Argentina, Bolivia and Venezuela for instance, involved and abandoned foreign investment in different fashions during the last century. The nationalisation of *Petróleos de Venezuela S.A. (PDVSA)* accounts for large set of measures adopted by Venezuela to recover the control of their oil resources. Likewise Bolivia and Argentina have nationalised their energy resources in recent years. Bolivia have nationalised the provision of water services (Cochabamba and La Paz), and also the provision of electricity (La Paz and Oruro) between 2000 and 2012.

¹⁶ This term was used by Professor Thomas Wälde in relation to the negotiations and agreement of the Energy Charter Treaty, making reference to the risk associated with energy infrastructure that required extensive amounts of investment capital, which accounted to high sunk costs. Such costs could only be recouped during long periods of time that placed foreign investors in a position where they faced periods of high political risk, meaning that policy developments in the host State could undermine the economic arrangements that attracted the investor in the first place. See Wälde and Weiler, "Investment arbitration under the Energy Charter Treaty in the light of new NAFTA precedents: Towards a global code of conduct for economic regulation," 430; Wälde and Dow, "Treaties and Regulatory Risk in Infrastructure Investment. The Effectiveness of International Law Disciplines versus Sanctions by Global Markets in Reducing the Political and Regulatory Risk for Private Infrastructure Investment" 3.

¹⁷ See Wälde and Dow, "Treaties and Regulatory Risk in Infrastructure Investment. The Effectiveness of International Law Disciplines versus Sanctions by Global Markets in Reducing the Political and Regulatory Risk for Private Infrastructure Investment " 4.

¹⁸ See Lowe, "Regulation or expropriation?"; Brigitte Stern, "In Search of the Frontiers of Indirect Expropriation" ed. W. Arthur Rovine, *Contemporary Issues in International Arbitration and Mediation The Fordham Papers 2007* (Brill, the Netherlands: Martinus Nijhoff Publishers, 2007).

¹⁹ See OECD Directorate for Financial and Enterprise Affairs, "'Indirect Expropriation' and the 'Right to Regulate' in International Investment Law" (Paris: Organisation for Economic Co-

institutions such as the International Institute for Sustainable Development (IISD) have followed suit with analysis on the best practices around indirect expropriation.²⁰ The United Nations (UN) Conference for Trade and Development (UNCTAD) has also published new developments regarding the issue.²¹ These are just a few examples to illustrate that the distinction between indirect expropriation and regulation is far from being drawn. A new generation of IIAs has started tackling this problem by including provisions that delineate the assessment of regulatory practice.²² However, there are still an important number of IIAs which contain traditional provisions regarding expropriation and compensation. These distinctions between provisions in early BITs and so-called second (and third) generation BITs create a continued lack of clarity as to how tribunals should approach the exercise of regulatory powers.

Under the provisions of a typical IIA, an investor has a legitimate expectation of being protected against undue interferences with his covered investment. This normally includes security of expected profits and guarantees against certain types of political and regulatory risk. IIAs cover a non-exhaustive list of property rights and property interests, including water resources.²³ On the

operation and Development, 2004); OECD Secretariat, "Draft OECD Principles for International Investor Participation in Infrastructure," in *OECD Global Forum on International Investment. Enhancing the Investment Climate: the Case of Infrastructure* (Istanbul, Turkey: OECD, 2006).

²⁰ Mann, "The Right of States to Regulate and International Investment Law"; Suzy H. Nikiéma, "Best practices indirect expropriation," (Winnipeg, Man.: International Institute for Sustainable Development, 2012). See also, Martins Paparinskis "Regulatory Expropriation and Sustainable Development", in *Sustainable Development in International Investment Law*, ed. M.C. Cordonnier-Segger and A. Newcombe M.W. Gehring (Kluwer Law International, 2010).

²¹ OECD Directorate for Financial and Enterprise Affairs, "'Indirect Expropriation' and the 'Right to Regulate' in International Investment Law". Nikiéma, "Best practices indirect expropriation"; United Nations Conference on Trade and Development (UNCTAD), "EXPROPRIATION: A Sequel. UNCTAD Series on Issues in International Investment Agreements II" (New York, Geneva: United Nations, 2012).

²² 2004 and 2012 United states Model BITs, the 2004 Canadian Model BIT, the Dominican Republic-Central American Free Trade Agreement (CAFTA) and others, which will be discussed in the next chapters.

²³ Mark Kantor makes an account of the changes observed between the US Models BIT 2004 – 2012, he argues that the protected investment under BITs is quite similar that the property rights covered by the Takings Clause in the United States. In this vein Kantor cites the *Florida Rock Industries, Inc. v United States*, which asserts:

'Property interests are about as diverse as the human mind can conceive. Property interests may be real and personal, tangible and intangible, possessory and non-possessory. They can be defined in terms of sequential rights to possession (present interests—life estates and various types of fees—and future interests), and in terms of shared interests (such as the various kinds of co-ownership). There are specially structured property interests (such as those of a mortgagee, lessee, bailee, adverse possessor), and there are interests in special kinds of things (such as water, and commercial contracts).'

in *Florida Rock Industries, Inc. v United States* (Florida Rock IV), 18 F. 3d 1560, 1572 fn 32 (Fed Cir 1994); as cited by Kantor in: Mark Kantor, "Little Has Changed in the New US Model

other hand, NGOs, environmental and human rights groups, and increasingly governments, perceive that the provisions in IIAS hinder the development of regulatory actions aimed at protecting public welfare, due to the risk of having to compensate investors for loss of their expected profits.²⁴ It is undeniable that there is a level truth in the latter perspective, for it is indeed the case that a regulatory measure with an effect on investors' property rights, understood broadly, diminishes the investment. It is also the case that States stall the implementation of environmental and general public welfare standards when subjected to arbitral disputes.

From that perspective, the obligation to protect foreign investment under IIAs, on one hand, may be perceived as hindering the States' prerogative to regulate water resources. The regulation of water resources, on the other hand, may have expropriatory effects over the property rights of foreign investors, in breach of IIAs' obligations.²⁵ International law recognises the police power of states, when it is exercised in good faith and in a non-discriminatory fashion. Under this premise, investors could not reasonably expect a static regulatory environment. The evolution of such a regulatory environment, however, is at least expected to share the burden of costs among all beneficiaries; for instance, the costs of more stringent labour standards could not be solely borne by investors.

Investment practitioners have asserted for years that the findings of expropriation linked to the protection of the environment, public health and safety are rather unlikely and that so far very few tribunals have decided in favour of a claim of expropriation. Susan Frank has undertaken quantitative research linked to the incidence in which investors win cases against host States, and her conclusions appear to prove the arguments expressed above.²⁶

Bilateral Investment Treaty" *ICSID review: Foreign investment law journal* 27, no. 2 (2012): 346. See also Parvanov, Parvan, and Mark Kantor. "Comparing U.S. Law and Recent U.S. Investment Agreements: Much More Similar Than You Might Expect." In *Yearbook on International Investment Law and Policy*, edited by Karl P. Sauvant. New York: Oxford University Press, 2010-2011.

²⁴ UNCTAD reports that host States have been subject to claims for up to 114 billion US Dollars in awards of 1.77 billion US Dollars. These two amounts related to disputes in the oil sector, the former against Russia and the latter against Ecuador. See United Nations Conference on Trade and Development (UNCTAD), "Reform of Investor-State Dispute Settlement: In Search of a Roadmap (Updated for the launching of the World Investment Report (WIR), 26 June 2013)" (Geneva: UNCTAD, 2013), 3.

²⁵ Muñoz, Hugo, "La administración del agua y la inversión extranjera directa ¿Cómo se relacionan?"

²⁶ In her article Frank addressed the incidence of success of claimants and defendants. In the specific case of 'Ultimate winners in Treaty Cases' Frank finds that governments won 57.69% of the cases; investors 38.46% and settlement agreements were reached between investor and

However, as mentioned in the previous section, the increase of investment arbitration cases is unprecedented, and it is fair to argue that host States continue to face claims of expropriation, along with claims for breach of other standards of treatment. The mere initiation of investment arbitration proceedings already constitutes a considerable burden for governments. In some cases governments have repealed their regulatory measures under the imminent possibility of being subject to liability, thus having to pay high compensation, *e.g. Ethyl v Canada*,²⁷ *SunBelt v Canada*,²⁸ *Vattenfall v Germany*.²⁹ Conversely, in some cases such as *Methanex v the United States*, *Chemtura v Canada*,³⁰ and *S.D. Myers v Canada*,³¹ the government has defended its regulatory measure successfully. What seems to trouble governments and civil society actors is the possibility of being sued for regulatory measures that aim to protect the public interest because the anxieties of litigation may cause a ‘regulatory chill’ on the side of host States.

Therefore, in the context of international investment law, this work attempts to develop a framework of analysis, which may assist arbitrators in distinguishing indirect expropriation from legitimate regulation. The criteria embedded in such framework may in turn provide guidance to host States and investors as to what would be a test to assess a claim of indirect expropriation. This work attempts to address these two allegedly independent fields of law, namely international investment law and water (resources) law,³² whose operation may influence each other’s development. An

government in 3.85% of the cases. See Susan D. Franck, "Empirically Evaluating Claims About Investment Treaty Arbitration" *The North Carolina Law Review* 86, no. 1 (2007): 48-52.

²⁷ In this case the Government of Canada imposed a ban on the importation of Ethyl products (gasoline additive MMT), the measure was challenged by the American investor claiming USD 251 Million Dollars for losses arising from the expropriatory measure. See *Ethyl Corporation v the Governments of Canada*, (NAFTA Chapter 11, under UNCITRAL Rules)

²⁸ In this case, the claimant sought restoration of water export licences granted previously by British Columbia and payment of compensation of lost business opportunity. Alternatively in case the said restoration did not take place, Sun Belt claimed compensation for permanent loss of business opportunity amounting to USD 10.5 Billion Dollars. See *Sun Belt v Her Majesty the Queen (Government of Canada)*, (NAFTA Chapter 11, under UNCITRAL Rules), *Notice of Claim and Demand for Arbitration*.

²⁹ *Vattenfall AB, Vattenfal Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany*, (ICSID Case No. ARB/09/6) (hereinafter *Vattenfall v Germany*). This case will be further analyse in Chapter II

³⁰ *Chemtura Corporation v Canada, Ad hoc—UNCITRAL (NAFTA)*, Award signed 2 August 2010.

³¹ *S.D. Myers, Inc. v the Government of Canada*, (NAFTA, Chapter 11). In this case, however, the claimant got redress on grounds other than expropriation, namely Fair and Equitable treatment.

³² The term ‘law of water resources’ will refer specifically to the allocation, management, the regulation of uses and permits to use water resources, which may differ from the laws regulating the supply of water services, its infrastructure, operation costs, investment costs,

understanding of water resources management and its regulation plays a pivotal role in the development of a framework that intends to assist arbitral tribunals in addressing claims of indirect expropriation in water-related disputes arising out of international investment arbitration disputes.

The framework incorporates extensively the elements of analysis discussed by academics and practitioners and takes into consideration the approach embedded in the US and Canada Model BITs of 2004 and several agreements of the new generation. In addition, it adopts a sector-specific perspective, because water has inherent characteristics that make it different from other natural resources. This special nature can be seen, for instance, in the precariousness of water property rights, as well as in the natural variability of water, which makes it less reliable, calling for adaptive management.

In this vein, this work is required to address concepts of national law as well as international law, and their intersection. It is common ground that an investor's property rights are acquired and shaped through the national legal system of the host State, whereas the protection of such property rights occur under the rules of international law, through the application of specific treaty provisions or the application of customary international law.

1.3 Research Question

There are two challenges that this work attempts to address. The first one pertains to the sphere of international investment law, and it is linked to the difficulties in assessing when a regulatory measure constitutes an indirect expropriation and not a legitimate regulation. The second one considers specific challenges around water resources and the increasing need for adaptive and integrated management, which in turn may affect the stability and predictability of IIAs. Therefore, as a contribution to the jurisprudence, this work seeks to answer the following two-fold question: Can the specific characteristics of water resources assembled together, justify considering this natural resource as unique, or at least special, amongst natural resources? If so, can this special nature and the nature of property rights in water be incorporated in the assessment of an investment dispute, by investment

and pricing, among others. The supply of water services may be under the scope of the law of water resources, predominantly regarding allocation and use of water resources.

arbitration tribunals, when distinguishing claims of indirect expropriation from legitimate regulation?

1.4 Why Water? – Scope

Each element of the environment is special in its own right, and the legal frameworks that regulate them reflect this fact. Yet, water – as will be illustrated – is unique; it is the combination of all its characteristics assembled that makes it this way. Perhaps the first and foremost distinct characteristic is that water has no known substitutes and its direct consumption is so essential to life that it is regulated as a *common good*³³ in most legal systems. Arguably the same could be said of air, but fortunately air has not yet become a potentially scarce resource.

Rarely in investment arbitration have governments assessed the importance of managing the *quality* of their water resources so as to pursue more general goals such as the environment, public health, and safety. Perhaps, this is because the said spheres of regulation, which rest within the police power of states, enjoy a higher level of deference than others. However, they could also mask disguised acts of protectionism adopted by governments to benefit their national industry. This work suggests that more specific defences – adopted by governments – would direct the assessment of potential investment disputes to the origins of the regulatory measure, and provide more transparency and justification to the process. There might also be disputes over water quantities in which governments may need to justify the need for allocating or reallocating water resources in a different manner than originally planned. In such cases, the examination of the issue may be located in a broader sphere of regulatory prerogative – different from the protection of public health, environment and safety – hence incorporating stricter scrutiny of the measure at issue.

In this light, as will be examined in Chapters II and IV water resources may constitute a special case under the umbrella of international investment law. As such, regulatory measures adopted by governments will be linked to the management of water resources and the effects on water rights. This work

³³ This work refers water as a common good, generally as synonymous of common-pool resources. This term is used and explained by Elinor Ostrom and it is further developed and clarifies in Chapter II, Section 2.4.3 of this thesis.

pays special attention to the construction of water property rights within the proposed framework of analysis; it therefore suggests the relevance of looking at the domestic laws of host States. Yet, in doing so, this work adopts a broad look to the national laws of host States, identifying commonalities across host States, that illustrate the special nature of water property rights. Essentially, the establishment of water rights systems seems dependent on the variability and uncertainty of water resources, which differs from the nature and structure of property of other natural resources such as in oil, gas, forests and land. It is noteworthy that the supply of water services is not the main focus of this work because the provision and regulation of water services has more commonality with the regulation of other network infrastructure for the delivery of public utilities. This work considers, also the high level of sensitivity and entitlement that water inspires in users and communities as evidenced by past disputes over water service investments.

1.5 Why an Analytical Framework that Distinguishes Indirect Expropriation from Legitimate Regulation?

As regards the relationship between the fields of international investment law and other fields of law, such as environmental law, human rights, and – relevant to this work - water law, the academic literature on the issue proposes a wide range of methodologies that could assist in determining the dividing line between expropriation and regulation. Most of the literature tends to focus on how to reconcile IIAs obligations of investment protection with other societal values or welfare objectives (some of these welfare objectives constitute obligations enshrined in other international agreements and declarations, requiring complex methods of incorporation into investment agreements).³⁴ Among the methodologies put forward to assist both the parties to the dispute and arbitrators in deciding such disputes, the literature covers the principle of systemic integration of IIAs with other relevant rules international law such as environmental agreements, human rights obligations, labour standards and trans-boundary watercourses agreements, under Article 31(3)(c) of the Vienna Convention on the Law of Treaties

³⁴ Those values maybe focused on human rights, the environment, indigenous rights, health, safety, security, water resources, and sustainable development. There are many societal concerns that are potentially affected by the operations of foreign, whether such an effect is attributable to the investor or not.

(VCLT).³⁵ Further, some authors propose that investment dispute resolution should resort to analytical frameworks to address conflict of laws in trade and international investment law.³⁶ Miguel Solanes, for instance, has also proposed - in the area of water resources and water services - a perspective that addresses the asymmetric relations between investors and States, in which the interests of investors would be widely protected by investment tribunals with detrimental effects to States. This approach advocates for the application of general principles of law accepted by relevant legal systems.³⁷ A specific analysis of these methodologies is beyond the scope of this work; nonetheless, this thesis does not disregard their assistance to arbitrators when applying the proposed framework of analysis, discussed in Chapter IV.

The analysis of water-related measures in the context of investment arbitration, which will be discussed in the next Chapters, considers the large number of IIAs of the first and second generation that are currently in force. The second generation of IIAs - as argued below - develops important clarifications in the interpretation of the provisions linked to indirect expropriation and the prerogative of States to regulate. Such clarifications may elucidate a sense of obligation of States and investors towards an emergent standard of review that defers to the exercise of regulatory prerogatives. Therefore, the scope of analysis does not cover a conflict preventive approach, this scope of analysis rather aims to assist the investor-State dispute settlement mechanism to progress into a more predictable and consistent mechanism. Perhaps, it may also assist in improving the legitimacy crisis that the investor-state arbitration mechanism appears to be undergoing in recent years.³⁸

1.6 Method and Structure

Ever increasing challenges around freshwater resources will have an effect over economic activities regulated under several fields of law other than water law. The more regulation a sector is subject to, within a particular area of law,

³⁵ See Chapter III *infra* note 202.

³⁶ The work of Pauwelyn in the context of the potential conflicts between WTO law and other societal values constitutes an important example. See Joost Pauwelyn, *Conflict of norms in public international law: How WTO law relates to other rules of international law* (Cambridge, UK; New York: Cambridge University Press, 2003).

³⁷ See Solanes and Jouravlev, "Revisiting Privatization, Foreign Investment, International Arbitration and Water".

³⁸ See Chapter IV *infra* note 13.

the more potential for conflicts arises with other areas of law. There exist challenges to the application of *lex lata* as stipulated in the agreement; however there are also challenges as to whether a broader or rather systemic analysis of investment agreements can be sustained.³⁹

This work adopts an analytical approach to the literature on water resources, as well as reports and international conferences and documents addressing the challenges around water resources and hydrological variability. The analysis of conventions, declarations and other relevant international documents and conferences, as well as a wide range of other secondary sources, purports to answer the first part of the research question, as to whether water is special. The second part of this work adopts a theoretical analysis of the police powers doctrine – the theoretical framework of Chapter III - as it intends a review of this doctrine from its origins to its current status in international investment law. In order to place the police power in the context of international investment law, this work includes a brief reference to the development of the protection of aliens and – later – foreign investors, in the international law. In order to answer the second research question, this work also adopts the jurisprudential approach of legal positivism in analysing a range of investment treaties and some arbitral awards solving investor-State arbitration disputes. Finally, in order to derive criteria to test the legitimacy of regulatory measures – adopted under the police power doctrine - this thesis analysis and takes forward existing literature, addressing the challenge of distinguishing legitimate regulation from indirect expropriation. Subsequently, the last part of this study analyses potential water related regulatory measures against each criterion of the proposed framework of analysis.

The following sections set out the structure of the thesis.

1.6.1 Chapter 2: The Special Nature of Water Resources

In order to understand the special nature of water resources within the broader context of international investment law, Chapter 2 addresses the

³⁹ See for instance *Glamis Gold, Ltd. v. United States of America, Award under UNICTRAL Rules, June 8, 2009*, and the analysis of Professor Michael Reisman of the systemic approach adopted by the tribunals in that dispute. W. Michael Reisman, "'Case Specific Mandates' versus 'Systemic Implications': How Should Investment Tribunals Decide?", *The Freshfields Arbitration Lecture* *Arbitration International* 29, no. 2 (2013).

physical, economic social and environmental characteristics of water resources. It is important to assess the ownership and formation of water rights/entitlements. While this may be best explained by economic theory, this work will instead focus on the origin of property rights from commons to individual private property, and to observe why the robust construction of property rights in land, for instance, has not reached water resources. However, the features of ownership in water do not end the discussion; the real issue arises regarding the use and enjoyment of water resources, how these entitlements are granted and what is the extent of their protection. One way of looking at the challenges of water resources is to consider the potential disputes that could arise in different geographical contexts. However, a downside of this approach is that property rights are generally created under the domestic legal systems of states, causing difficulties in identifying a set of commonalities across legal systems, especially in relation to water property rights granted to investors. This challenge has been overcome by addressing certain legal systems from a general standpoint and treating them as examples that may be representative of a significant number of other legal systems. In this light, Chapter 2 also considers a number of relevant investment disputes linked to water resources.

1.6.2 Chapter 3: The Protection of Foreign Investment

The notions of sovereignty and the police power are closely related to investor-State arbitration, and they have been used and abused by friends and foes of this dispute settlement mechanism. In this vein, both perspectives appear to have lost some of the original underpinning values that justified their initial positions. For this reason, this work proposes a revisiting of the concepts of sovereignty and police power in their historical and legal foundations. Expropriation could not be properly assessed without addressing the principle of sovereignty of States, closely linked to the doctrine of the police power. An analytical approach to the literature devoted to these concepts is undertaken in order to assess their relevance in the context of international law as well as national law. Likewise an analytical approach to the literature on international investment law – with a focus on the issue of expropriation – has been included with a view to provide a general context of the area of investment arbitration. This approach, however, would not be complete without addressing positive law and a legal interpretation of relevant IIAs, as well as

case law analysis. Chapter III undertakes this endeavour, and in doing so, it pays greater attention to the American tradition, which appears to shape the principle of police power as recognised under customary international law. However, it is not possible to make an account of this conceptual framework without referring to the sovereignty of States, which will be briefly addressed from a few perspectives. Chapter III also contains a brief reference to the development of international investment law and investment arbitration, with a focus on the standard of non-expropriation without compensation, and its transition to the issue of indirect expropriation, which is at the heart of this work. As such, Chapter III analyses the academic literature, as well as the case law on matters relevant to international investment agreements.

1.6.3 Chapter 4: The Framework of Analysis

Chapter 4 articulates the analysis of the police power as regulatory prerogative to regulate and sets a framework of analysis that aims at assisting arbitral tribunals in identifying regulatory measures adopted under the exercise of the police power and those that constitute an indirect expropriation. These criteria are drawn from the requirements for a lawful expropriation (public purpose, non-discrimination and due process), and are used to address the quality of the governmental measure.⁴⁰ The first stage considers two aspects, namely the *extent and nature of water property rights*. This criterion argues that water rights are not only shaped by whatever entitlements investors may acquire, but are also shaped by all other related regulations and principles that inform the rationale behind water property rights and their operation, which makes such rights precarious in nature. The second aspect is that water rights constitute only one element of the whole investment⁴¹ (the approach of the unity of the investment).⁴² This fact may be of relevance to the *definition of investment* and, thus to the jurisdiction of the tribunal deciding a case. The

⁴⁰ Professor Brigitte Stern proposes some of the criteria that will be adopted by the framework of analysis addressed in Chapter IV. See Stern, "In Search of the Frontiers of Indirect Expropriation".

⁴¹ A comparison could be drawn between the investment -as a complex project formed by contracts, licences, concessions, etc. - and the "bundle of rights" with sticks represented the enjoyment of each right of property. Schlager and Ostrom analyses property as bundle rights, and identified five property rights – or sticks of the bundle - that are most relevant for the use of common-pool resources, including: access, withdrawal, management, exclusion, and alienation. See Edella Schlager and Elinor Ostrom, "Property-Rights Regimes and Natural Resources: A Conceptual Analysis" *Land Economics* 68, no. 3 (1992), 250-51.

⁴² *Holiday Inns S.A. and others v. Morocco*, (ICSID Case No. ARB/72/1). This case was settled.

second stage of the framework covers the *economic impact of the measure over the investment*, which constitutes a quantitative analysis.⁴³ Finally, the third stage of the framework pertains to a qualitative analysis of the legitimate use of the police power, which will be provided by the following additional criteria: *public purpose, non-discrimination, due process and legitimate expectations*. These will all be addressed in the light of the challenges around water resources.

It may be argued that the concept of proportionality ought to be included as an additional criterion of the proposed framework. This work asserts that the interactions of the two parts of the framework, namely the quantitative approach and the qualitative one, constitute an implicit application of proportionality in the broader sense of the concept. Each element of these criteria has been previously analysed in the international investment literature. However, the novelty of this work is in a methodological approach, which is to be followed in line with a specific standard of review, linked to the characteristics of water resources and the nature of water property rights. The result of applying the framework of analysis will determine the extent to which the nature of water can and should be taken into account by arbitral tribunals.

1.6.4 Chapter 5: Conclusions

Finally Chapter V will offer conclusions on the application of the framework and provide recommendations to host States and investors in the development of their investment relations. There have been few cases related specifically to the protection of water resources, and even fewer in which host States have invoked the need for adaptability and flexibility of water resources management. Water management is generally embedded in the field of environmental protection, or increasingly perhaps human rights. While tribunals seem to be sympathetic of these arguments, they have not expressly decided on the alleged conflicts between human rights or environmental law and international investment law.⁴⁴ This works argues that historical

⁴³ Professor Stern proposes this quantitative approach. See Stern, "In Search of the Frontiers of Indirect Expropriation", 38-44.

⁴⁴ In *Suez v Argentina* this issue was address: '[T]he Tribunal does not find a basis for such a conclusion either in the BITs or international law. Argentina is subject to both international obligations, *i.e.* human rights *and* treaty obligation, and must respect both of them equally.' See *Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A. v Argentina*,

development of water laws should play a pivotal role in the assessment of water entitlements. In this vein, from a government's perspective, the development of water law and the adoption and implementation of Integrated Water Resources Management (IWRM) will be of great relevance in defending a water-related investment disputes in the future.

ICSID Case No. ARB/03/19 and under UNCITRAL Rules AWG Group v Argentina, Decision on Liability, July 30, 2010, para. 262.

CHAPTER 2

THE SPECIAL NATURE OF WATER RESOURCES

2.1 Introduction

Water is essential to life and pivotal to any human undertaking. To date, humans have found substitutes for wood, for whale oil, for petroleum. In sum, there are potential substitutes for most sources of energy, but there is no substitute for water. This chapter explores the challenges around water resources management, which are exacerbated by increased stress over water resources that in turn may result in future crises across the globe.

In the past, interaction between water law experts and experts from other disciplines of knowledge was not common. Recently, water law experts have developed their own specialism – water law – and have reached important synergies with other disciplines such as geography, climatology and hydrology. Water resources are influenced by several factors, such as geography, climate and human behaviour. These disciplines are critical for understanding the behaviour of the water cycle *e.g.* rainfall, aquifers, runoff, and in turn, its appropriate regulation. However, the relationship between water law and a number of other fields of law has not been so clearly established, despite the great potential for cross-fertilization among the disciplines linked to water governance. This is particularly the case with international economic law in general, and international trade law and international investment law specifically.⁴⁵ Thus, this chapter elaborates on the possible different types of relationships between water and international investment law, so as to establish the basis for the subsequent chapters of this work. In order to address the interaction between water regulation and investment law, Chapter IV proposes a classification of possible regulatory measures linked to the management of water resources,⁴⁶ which could be a source of investment disputes. In doing so, this work joins an important set of water as well as international investment law scholars, who have addressed the potential complexities in the relationship between water resources management, water

⁴⁵ Other areas of International Economic Law, such as International Tax Law, International Development, International Intellectual Property, International Business Regulation, International Banking Law, International Commercial Arbitration, may eventually intersect with water issues. They however, are not the within the scope of this work.

⁴⁶ See Chapter IV, Section 4.3

services supply and international investment law.⁴⁷ Indeed, there is increasing awareness among water professionals of the effects of international investment protection obligations over the regulation of water resources and water services.

In some cases, host States seeking to avoid responsibility under International Law, *i.e.* payment of compensation and reputational issues, have stalled the adoption of environment regulation – including water resources regulation – resulting in a ‘regulatory chill’. This kind of regulatory disincentive can be observed *ex-ante* investment and *ex-post* investment. The United Nations Conference on Trade and Development (UNCTAD) points out – from an *ex ante* perspective - that capital importing countries which are competing to attract foreign investment, may have incentives to lower their social and environmental standards.⁴⁸ This phenomenon has also been referred to as a ‘race to the bottom’ among capital importing countries.

⁴⁷ See for instance the work of: Cumming and Froehlich, "NAFTA Chapter XI and Canada's Environmental Sovereignty: Investment Flows, Article 1110 and Alberta's Water Act"; Matthias Finger and Jeremy Allouche, *Water Privatisation* (London: Spon Press, 2002); Levesque, "Investment and Water Resources: Limits to NAFTA"; Andrew Lang, "The GATS and Regulatory Autonomy: A case Study of the Social Regulation of the Water Industry" *Journal of International Economic Law* 7, no. 4 (2004); Mann, "Who Owns "Your" Water? Reclaiming Water as a Public Good under International Trade and Investment Law"; Mann, "International Economic Law: Water for Money's Sake"; Mann, "Implications of International Trade and Investment Agreements for Water and Water Services: Some Responses from Other Sources of International Law."; Marrella, "On the changing structure of international investment law: The human right to water and ICSID arbitration"; Timothy O'Neill, "Water and Freedom: The Privatization of Water and its Implications for Democracy and Human Rights in the Developing World" *Colorado Journal of International Environmental Law and Policy* 17, no. 2 (2006); Orr, Cartwright , and Tickner, "Understanding water risks A primer on the consequences of water scarcity for government and business"; Miguel Solanes, "Privatization, Foreign Investment, Arbitration and Water: A Time to Revisit. Summary of the main issues raised by Michael Hantke-Domas, Howard Mann and Jorge Barraguirre"; Solanes, "Water Services and International Investment Agreements"; Solanes and Jouravlev, "Revisiting Privatization, Foreign Investment, International Arbitration and Water"; Stanton Kibel, "Grasp on Water: A Natural Resource that Eludes NAFTA's Notion of Investment"; Stanton and Schutz, "Two Rivers Meet: At the Confluence of Cross-Border Water and Foreign Investment Law"; The International Federation of Private Water Operators (AquaFed), "Bilateral Investment Treaties and the Right to Water: The case of the provision of public water supply and sanitation services.(Submission by AquaFed)."; Vinuales, "Access to Water in Foreign Investment Disputes"; Vinuales, "Iced Freshwater Resources: A Legal Exploration"; Jorge E. Vinuales, *Foreign Investment and the Environment in International Law* (Cambridge: Cambridge University Press, 2012); Jeffery S. Wade, "Privatization and the Future of Water Services" *Florida Journal of International Law* 20 (2008); Muñoz, "La administración del agua y la inversión extranjera directa ¿Cómo se relacionan?"; Tanzi, "On Balancing Foreign Investment Interests With Public Interests in Recent Arbitration Case Law in the Public Utilities Sector".

⁴⁸ United Nations Conference on Trade and Development (UNCTAD), "International Investment Agreements: Key Issues Volume II" (Geneve: United Nations, 2004), 73.

In the case of *ex post* investments, Howard Mann argues that lack of clarity in the obligations contained in International Investment Agreements (IIAs), could be used by investors to threaten sovereign governments with arbitration procedures whenever a government proposes the adoption or modification of national regulations.⁴⁹

In both cases, the phenomenon of ‘regulatory chill’ may take place in the context of water management, affecting the ability to adopt adaptive measures to tackle actual or imminent challenges around water resources, and affecting, in turn, the short and long run welfare of the citizens of the Host State.

In order to better understand the importance of the relationship between water law and international investment law, Section 2 analyses the nature of water resources by addressing its physical characteristics, as well as its social, economic and environmental aspects. Section 3 addresses current and potential challenges around water resources, such as increasing demand and competition for water resources, and issues of availability linked to water stress and scarcity. Section 4 briefly addresses the development of international water governance, through international conferences and declarations, which might have paved the way for some common understanding in the management of water resources. The international context of water resources may have influenced domestic water law, and this is also addressed in Section 4. This Section also considers the ownership and control over water resources, which may have been influenced by the special nature of water resources. Finally, Section 5 addresses the relationship between water law and investment law.

The provision of drinking water (water services) is considered in this Chapter as an area of regulation that is distinct from water resources management. However, the activity of drinking water supply will be considered within the scope of water resources management. This is because drinking water supply could be in competition with other activities demanding water resources, and may be subject to similar allocation rules.

It is also noteworthy that regulation of water services is highly sensitive, in the social and economic contexts. In this vein, the regulation of water infrastructure, as well as the regulation of private sector provision of drinking water, deserve special attention and will be dealt with in specific subsections.

⁴⁹ Mann, "The Right of States to Regulate and International Investment Law" 8.

2.2 The Unique Nature of Water Resources

This section underpins the unique nature of water resources from different perspectives, and explores its physical characteristics within the hydrological cycle. In this context, when the Ohio Supreme Court of the United States (US) was confronted with the issue of whether an environmental amendment was to be applied to ground water, it stated the following:

water is a *sine qua non* of the happiness, health, welfare, and agricultural and industrial progress of the state. Its absence or presence makes the difference between a desert and a garden. It is essential to preserve life of both man and beast, and industrial progress and development depend in a tremendous measure upon an adequate underground water supply.⁵⁰

The fact that water is essential to life appears to be unchallenged. Yet, to understand how such essentiality works, water needs to be seen as a unity that is present simultaneously in all contexts of life. Cullet appears to be critical of current mechanisms of water allocation (or appropriation of water rights). He criticises the diversity of modern water-allocation mechanisms, which has changed the structure of water rights and its historical relation to land:

taken together, the tendency of the state to assert direct or indirect control and the multiplicity of rights that have been granted to individuals in relation to water have led to a situation where water is more often seen as a 'a natural resource' to be (sustainably) exploited or as a 'good' to be traded and efficiently managed rather than the basic substance that makes life on earth possible.⁵¹

Further, the way in which water is perceived and regulated and the nature of (water) rights, granted to users, may not be always consistent with the physical nature of water resources. For example, while economics and law have traditionally advocated for secured rights, hydrologists and scientists are conscious of the unpredictable nature of water resources, which contradicts the security of water rights. Savenije illustrates this example by explaining that professionals from other fields, such as economics, argue that water professionals fail to see the larger picture due to their specific knowledge of

⁵⁰ See *State v. Martin*, 168 Ohio St. 37, 151 N.E.2d 7 (1958), 11 in Joseph M. Reidy, "Cline v. American Aggregates Corp. an Ohio Waterloo?" *Capital University Law Review* 13(1983-1984), 684.

⁵¹ Philippe Cullet, "Water Law in a Globalised World: the Need for a New Conceptual Framework" *Journal of Environmental Law*, 23, no. 2 (2011), 6.

the subject just, 'like the father who refuses to see that his daughter is just a girl'.⁵²

2.2.1 Water is Finite, it is a System, it is Bulky and it is Non-Substitutable

Water is a finite and vulnerable resource⁵³. While 97.5 per cent of water is in the oceans, 2.5 per cent is fresh water. From this amount of water, only 0.3 per cent of fresh water is found in rivers, lakes and ponds; and from the 2.2 per cent left, 70 per cent is found frozen as ice or snow in the mountainous regions, generally away from human access, and finally 30 per cent is groundwater.⁵⁴

The amounts of water remain invariable in nature, although fresh water is unevenly distributed, in a geographical context. For several hundreds of years, human demand, ecosystems and industry were served from the same portion of fresh waters available in nature.⁵⁵ However, as the population grows and consumption increases, so does the demand for water.

The finite characteristic of water lies in the fact that, in some regions, it cannot be replenished at the same rate at which it is withdrawn. In other words, water demand for *e.g.* human consumption, industry, agriculture, cannot be met because water resources are being consumed faster than the water cycle can replenish such fresh water.⁵⁶

Water is essential to life, the environment and most forms of economic activities.⁵⁷ Physically, water is a system, fugitive and bulky. Any action taken

⁵² Hubert H.G. Savenije, "Why water is not an ordinary economic good, or why the girl is special" *Physics and Chemistry of the Earth* 27(2002), 741.

⁵³ *Dublin Statement on Water and Sustainable Development*, Dublin, Ireland, 31 January 1992

⁵⁴ UN Water, Statistics, Graphs and Maps, United Nations Environment Programme (UNEP), available at http://www.unwater.org/statistics_res.html, last visited 11 November 2009.

⁵⁵ 'There is precisely the same amount of [water] on the planet as there was in the age of the dinosaurs, and the world's population of more than 6.7 billion people has to share the same quantity as the 300 million global inhabitants of Roman times'. In Geoffrey Lean, 'Water scarcity 'now bigger threat than financial crisis'', *The Independent, Sunday, 15 March 2009*.

⁵⁶ World Water Assessment Programme, "The United Nations World Water Development Report 2: Water a Shared Responsibility," (Paris - New York: United Nations, 2006), 116; Meena Palaniappan and Peter H. Gleick, "Peak Water", in *The World's Water 2008-2009: The Biennial Report on Freshwater Resources*, ed. Peter H. Gleick, et al. (Washington: Pacific Institute for Studies in Development, Environment and Security, 2009), 1.

⁵⁷ Viñuales addresses this point with regard to the special characteristics of water, such as the lack of substitutes, limited temporal supply, uneven distribution and essentiality. Furthermore,

concerning water will inevitably have an effect on the water system. The hydrological cycle is the mechanism through which water is transferred from the oceans (and water from the sub-surface and surface environments and plants) to the atmosphere and back to the surface through rainfall. The hydrological cycle constitutes an indivisible system that involves complex processes of rainfall, runoff, infiltration, recharge, seepage, re-infiltration and moisture recycling. These processes are all interconnected and interdependently related to one direction of flow: downstream.⁵⁸ In addition, prior use of water (physical upstream interference) brings about consequential effects to future demand (physical downstream availability)⁵⁹:

Use of soil moisture diminishes the availability of groundwater; use of groundwater diminishes the availability of surface water etc. Thus any use of water affects the entire water cycle.⁶⁰

Water is physically elusive as it is in a constant state of flux. In other words, and opposed to the static characteristics of land, water flows under gravity and unless it is captured and stored, it is capable of constant movement.⁶¹ However, while water can also be found in stocks in nature, such as aquifers and lakes, the quantities will vary due to the other processes mentioned above *i.e.* infiltration, surface runoff, recharge, and, of course, human interference.

Another distinctive characteristic of water is its bulkiness. Yet, this characteristic is not unique in water, as other commodities such as oil and land, share such physical conditions. As explained by Savenije, water's bulkiness in combination with its elusiveness and scarcity contributes to its complex nature. Water cannot be easily transported from one place to another because it is too bulky.⁶² For instance, the amount of water needed for irrigation in agriculture, in relation to the price farmers may be willing pay for it, does not justify the transportation of water resources to the place of water scarcity because the amounts consumed can be extremely large. The cost of transportation would exceed the actual value given by users to water resources. In contrast, most commodities such as fuel, food and energy do

he expresses: 'It is for these reasons, a vital strategic resource, which cannot be managed as any other tradable good'. See Viñuales, "Iced Freshwater Resources: A Legal Exploration", 203.

⁵⁸ Savenije, "Why water is not an ordinary economic good, or why the girl is special" 742.

⁵⁹ The clarification of physical upstream effects over physical downstream availability is necessary in the context of this work because – as it will be discussed below – from a legal perspective downstream use is potentially equally harmful to upstream users.

⁶⁰ P. Van der Zaag and Huber H.G. Savenije, "Water as an economic good: the value of pricing and the failure of markets" *Value of Water Research Report Series No. 19* (2006), 9.

⁶¹ Savenije, "Why water is not an ordinary economic good, or why the girl is special", 142.

⁶² *Ibid.*

reflect the costs of production and transportation in the final price, which consumers are willing to pay.

Human consumption as well as land use (such as the construction of dams and well-drilling) interfere with the water cycle, because they affect surface and ground water, respectively, and in turn, the overall water system. In addition, climate variability *e.g.* global warming also has major effects on water's temporal availability due to evaporation of ocean and fresh waters. These drivers of water variability, in turn, may trigger physical redistribution *e.g.* floods in some places, and drought in other places, as well as economic redistribution *i.e.* water reallocation among competing users.

As water does not recognize national territories nor does it recognize boundaries, it moves according to its natural flow, which means that upstream interferences and downstream effects occur at the national as well as international levels. Note, however, there may also be effects on the other direction, namely downstream users effecting upstream users. Indeed projects associated with water resources such as dams, mining, irrigation undertaken by downstream users could create historic rights, foreclosing future water demand for upstream users. Salman Salman reports several examples where upstream users expressed concern for the use of water resources by their downstream neighbours, 'by virtue of prescriptive rights gained with time'.⁶³ Current use of water resources for projects in riparian states –upstream or downstream – may create expectations of future quantities of water allocation, which the other riparian may not have ever acknowledged. As such, reduced downstream (or for that matter future user) availability of water resources can clearly create tensions among competing users, which can in turn cause conflicts between states when trans-boundary interference is involved.

Finally, water has no substitutes. This characteristic will be addressed later in this chapter, but for now, it should be briefly considered. When the non-substitutable characteristic of water is added to those mentioned above, namely: scarcity, bulkiness and elusiveness, the uniqueness of water

⁶³ Salman Salman analyses the case of the Baardhere Dam and Water Infrastructure Project in Somalia, involving the use of water of the Juba River of which Ethiopia is an upstream riparian. In this case the World Bank was requested by Somalia to notify Ethiopia of its intentions to put forward the project. In response, Ethiopia exposed her future plans of hydroelectricity and irrigation expansions using waters of the Juba River, and expressed concerns for the harm that Somalia's project may cause to her rights over such waters. Although the conclusion of the World Bank and its independent experts was that the project would not foreclose Ethiopia's future water demand, the project was cancelled due to the political situation of Somalia. See Salman M. A., "Downstream Riparians Can Also Harm Upstream Riparians: The Concept of Foreclosure of Future Uses" *Water international* 35, no. 4 (2010), 359-62.

resources becomes readily apparent. The fact that water has no substitutes implies, in the first instance, that in case of scarcity and high prices, users are not freely able to switch to other sources. Since transportation proves difficult, users would have to restrict consumption and compete with other users.

This section assesses the nature of water resources from a systemic perspective. The elusiveness of water through the hydrological cycle does not allow diversion and storage, without physically affecting other downstream users. Water's lack of substitutes, in addition to the aforementioned characteristics, could hardly be reflected in water prices, which affect its transportation to regions under scarcity. Overall, what makes water special is not each characteristic independently considered, but rather the combination of all of them and the aggregate effect that each of them has on the availability of water.

This work suggests three perspectives to look at water resources, namely environmental, economic and equitable/social, which are considered below. They serve as a first approach to the three main values embedded in the notion of Integrated Water Resources Management (IWRM), which will also be considered below.

2.2.2 The Environmental Perspective

An environmental perspective to water resources touches mainly upon ecosystems degradation,⁶⁴ water pollution (quality of water)⁶⁵ and climate change. Regulatory measures linked to environmental governance – including water measures - have the potential to affect users' entitlements *e.g.* pollution

⁶⁴ The Millennium Ecosystems Assessment Programme defines Ecosystem as follows: 'An ecosystem is a dynamic complex of plant, animal, and microorganism communities and the non-living environment interacting as a functional unit. Humans are an integral part of ecosystems. Ecosystems vary enormously in size; a temporary pond in a tree hollow and an ocean basin can both be ecosystems. See Millennium Ecosystem Assessment, "MA Conceptual Framework", in *Ecosystems and Human Well-being: Current State and Trends, Volume 1: Findings of the Condition and Trends Working Group of the Millennium Ecosystem Assessment*, ed. Rashid Hassan, Robert Scholes, and Neville Ash (Washington, Covelo, London: Island Press, 2003), Box 1.1: Key Definitions, 27.

⁶⁵ The *United Nations World Water Development Report 3* (WWDR3) briefly identifies two main types of polluted water: 1) Black water, which contains the greatest level of pollution, usually with microbes; it is, therefore, unsuitable for human or ecological consumption; and 2) Grey water, which contains lower levels of contamination than black water and could be reused; it is generated from domestic activities *e.g.* laundry, bathing and other washing. See World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World" (Paris - London: United Nations, 2009), 162.

abatement, ecosystems protection and climate change adaptability. As expressed above, water constitutes a system that integrates other components of ecosystems, such as land, air and forests. Interference over water resources, mainly by human action, will have an effect over other natural resources, ecosystems and their services.⁶⁶ The quality of water is, therefore, essential for the wellbeing of ecosystems, which in turn have an impact on the occurrence of droughts, crops success/failure, flood, etc.⁶⁷ Economic as well as social development, by means of power generation, industrial production, household appliances, irrigation and mining, demand large quantities of water resources. They also often require diversion or storage, which in turn can potentially affect watershed repletion and competition over water resources.⁶⁸ While consumptive uses of water affect the amounts of water available, non-consumptive uses, which are returned to the watershed, are likely to be of less quality than raw water in nature. It should be pointed out, that economic and social development are unlikely to be sustainable when an ecosystem's health is ignored.⁶⁹ Therefore, healthy ecosystems imply additional demand for environmental flows and the sustainability for future generations.⁷⁰ However, such demand has been largely neglected in the past.⁷¹

The shrinking of the Aral Sea in Central Asia, as well as the depletion of fish stocks and catchment degradation in Lake Victoria in Africa, constitute striking examples of depletion of ecosystems due to overconsumption and diversion of water resources. These abuses of ecosystems negatively affect both upstream and downstream users.⁷² Water quality is not only raw water in

⁶⁶ The planet's ecosystems are not only systems of interaction among water, air, land, forests, etc.; they also provide benefits to human population. The notion of ecosystems services expresses the benefits accruing from them; thus, healthy ecosystems services provide 'food, water, disease management, climate regulation, spiritual fulfilment, and aesthetic enjoyment'. See Millennium Ecosystem Assessment, "MA Conceptual Framework".

⁶⁷ *Ibid.*, 27.

⁶⁸ Consumptive use of water, consist of water withdrawals from available sources, which will not return to the water cycle, such use can be found for instance in irrigation and food production. Non-consumptive uses of water, on the other hand, constitute the use of water that can be returned to the water cycle, weather treated or not, *e.g.* hydro-electricity generation, cooling systems, recreational uses of water and mining.

⁶⁹ The first principle embedded within the Dublin Statement, states: '... water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems...' *Dublin Statement on Water and Sustainable Development*, Dublin, Ireland, 31 January 1992.

⁷⁰ See Ronald C. Griffin, *Water Resources Economics. The Analysis of Scarcity, Policies and Projects* (Cambridge, Mass.: MIT Press, 2006). Ch2.

⁷¹ Sandra L. Postel, "Securing water for people, crops, and ecosystems: New mindset and new priorities" *Natural Resources Forum* 27, no. 2 (2003), 90-91.

⁷² World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 128. See also United Nations Environment Programme (UNEP),

nature. Water resources must retain their quality characteristics for human consumption. Drinking water may need more or less treatment depending on the quality of the raw water to be supplied. The more contaminated water resources are, the more extensive treatment and dilution will be required,⁷³ with a direct effect on the overall cost of water supply. It is estimated that eight litres of water are required to dilute one litre of 'grey water'.⁷⁴ Finally, climate change is increasingly addressed as a new driver for water stress.⁷⁵ The World Development Report 2011 asserts that the impacts of climate change on climate variability, food production, and energy generation remains to be fully observed.⁷⁶ However, the same report also contends that climate change is already affecting availability of water resources in developing as well as developed countries.⁷⁷

It appears that regulatory measures are deemed necessary to tackle the effects of climate change over hydrological variability. Sadoff and Muller assert that:

Changes in the availability, timing and reliability of rainfall and the water resources that flow from it will have impacts on all water-using sectors. These impacts in turn will affect the broader dynamics of national economies as well as environmental and social needs, particularly in poorer societies. Specifically, since effective water management is important for the achievement of many of

"GEO: Year Book 2003", in *GEO: Global Environment Outlook* (Washington: United Nations, 2003). Available at <http://www.unep.org/yearbook/2003/071.htm>, last visited April, 14, 2011. For the case of Lake Victoria, see World Water Assessment Programme, "The United Nations World Water Development Report 2: Water a Shared Responsibility", Box 5.1, 163.

⁷³ Palaniappan and Gleick, "Peak Water", 6.

⁷⁴ Estimation made by the World Health Organization, in: Orr, Cartwright and Tickner, "Understanding water risks A primer on the consequences of water scarcity for government and business", 20.

⁷⁵ On the effects of Climate Change see for instance World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", Chapter 5; World Bank, "World Development Report 2011: Conflict, Security, and Development", (Washington: World Bank, 2011); William R. Sutton, Jitendra P. Srivastava, and James E. Neumann, "Looking beyond the Horizon: How Climate Change Impacts and Adaptation Responses will reshape Agriculture in Eastern Europe and Central Asia" (Washington D.C.: Directions in development: Agriculture and Rural Development, World Bank, 2013). Available at: <http://documents.worldbank.org/curated/en/2013/03/17473996/looking-beyond-horizon-climate-change-impacts-adaptation-responses-reshape-agriculture-eastern-europe-central-asia>, last visited July 20, 2013; Bryson C. Bates *et al.*, "Climate Change and Water. IPCC Technical Paper IV", (Geneva: Intergovernmental Panel on Climate Change, 2008). Available at: <http://www.ipcc.ch/pdf/technical-papers/climate-change-water-en.pdf>, last visited January 2012; Scientific United Nations Educational, Cultural Organization, "The United Nations World Water Development Report (WWDR4)", (Paris: UNESCO, United Nations 2012).

⁷⁶ World Bank, "World Development Report 2011: Conflict, Security, and Development", 35.

⁷⁷ *Ibid.*, 230.

the Millennium Development Goals, these impacts could also threaten their achievement and their sustainability once achieved.⁷⁸

The protection of the environment, in a broad sense, is of great concern within the field of international economic law, and subject of intense scrutiny by Non-Governmental Organisations (NGOs) and citizens. Likewise, water law increasingly considers the effect of investment obligations to protect property rights and the effect that water management and supply regulation will have on foreign direct investment.⁷⁹ Regulation of water resources for environmental purposes – among others - could be deemed expropriatory in international investment law context. Such a relationship will be addressed in the next Chapters.

2.2.3 *The Economic Perspective*

The economic value of water resources is addressed in the fourth principle of the Dublin Statement:

Water has an economic value in all its competing uses and should be recognized as an economic good. Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.⁸⁰

This principle, however, has raised discussion among water professionals as to how the economic nature of water should be understood. Van den Zaag and Savenije identify two schools of thought addressing the economic value of water.⁸¹ The first one argues that market interaction will allocate a price to water based on the value each user gives to it.⁸² As a consequence, and when

⁷⁸ Claudia W. Sadoff and Mike Muller, "Perspectives on water and climate change adaptation. Better water resources management – Greater resilience today, more effective adaptation tomorrow", (Stockholm: Global Water Partnership, 2009), 4.

⁷⁹ Mann, "The Right of States to Regulate and International Investment Law"; Mann, "Who Owns "Your" Water? Reclaiming Water as a Public Good under International Trade and Investment Law"; Mann, "International Economic Law: Water for Money's Sake"; Mann, "Implications of International Trade and Investment Agreements for Water and Water Services: Some Responses from Other Sources of International Law"; Solanes, "Water Services and International Investment Agreements"; Solanes and Jouravlev, "Revisiting Privatization, Foreign Investment, International Arbitration and Water"; Muñoz, "La administración del agua y la inversión extranjera directa ¿Cómo se relacionan?".

⁸⁰ *Dublin Statement on Water and Sustainable Development*, Dublin, Ireland, 31 January 1992.

⁸¹ Van der Zaag and Savenije, "Water as an economic good: the value of pricing and the failure of markets", 7.

⁸² *Ibid.*

under competition, water would be priced to its highest value, which has the potential to limit some uses of water, especially the uses of those users unable to pay the market price of the resource.⁸³

The second school of thought does not necessarily incorporate the element of financial interaction in its interpretation.⁸⁴ In other words, it does not consider water's economic value as based solely on price. On the contrary, it takes into account uses and users that are unable to afford a price, *i.e.* ecosystems, cultural and recreational uses, etc. Green asserts that allocation of water resources should be analysed in the light of the other Dublin Principles, such as public participation and the role of women in water management.⁸⁵

Scarcity and increasing demand for water affect its availability; leading to prioritisation of some uses over others. Consumptive uses exclude other uses, making water resources unavailable until renewed through the hydrological cycle. Agriculture, which is a consumptive use, for instance, amounts to 70 per cent of water demand.⁸⁶ The United Nations (UN) Food and Agricultural Organization (FAO) reports that this sector:

is often criticized for high wastage and inefficient use of water at the point of consumption (*i.e.* at farm level) encouraged by subsidized low charges for water use or low energy tariffs for pumping. It is often claimed that the charges made for irrigation water, fail to signal the scarcity of the resource to farmers.⁸⁷

On the other hand, non-consumptive uses allow for reuse of water *e.g.* hydropower generation can transfer water either for agricultural irrigation or human consumption.⁸⁸ It is noteworthy, however, that non-consumptive and other uses cannot always be harmonised due to seasonal or geographical incompatibilities. In the abovementioned example may illustrate this situation: hydropower generation in many cases uses greater amounts of water during the winter season when energy demand is high; thus, the water available from this activity is unlikely to be useful for agricultural purposes because crops

⁸³ See Green, referring to the neo-classical interpretation of the fourth Dublin statement. Kenneth C. Green, "If Only Life Were That Simple; Optimism and Pessimism in Economics" *Physics and Chemistry of the Earth* 25, no. 3 (2000), 205-206

⁸⁴ Van der Zaag and Savenije, "Water as an economic good: the value of pricing and the failure of markets", 7.

⁸⁵ Green, "If Only Life Were That Simple; Optimism and Pessimism in Economics", 206.

⁸⁶ Kerry Turner *et al.*, "Economic valuation of water resources in agriculture: From the sectoral to a functional perspective of natural resource management", (Rome: Food and Agriculture Organization of the United Nations (FAO), 2004), 3.

⁸⁷ *Ibid.*

⁸⁸ Palaniappan and Gleick, "Peak Water ", 6.

are typically consumptive of water in the spring and summer seasons.⁸⁹ National authorities are, therefore, confronted with numerous trade-offs, as they are called to prioritise and allocate water resources, in line with development policies. In addition, policies may change and evolve at different points in time, as governments face new challenges or have new political agendas. In such cases, governments may adopt water reallocations, which have the potential to negatively affect foreign investors' property rights.

As opposed to fossil fuels, water has no possible substitutes at present. Therefore, if all uses of water would be – hypothetically – priced, water's price elasticity demand would be virtually inelastic, which means that users would be willing to pay high prices for water because there is no alternative source that users could switch to when water prices increase. Gleik argues that the 'ultimate water backstop is still water, from an essentially unlimited source', referring to ocean water, which still involves high desalinisation costs.⁹⁰

In sum, as water has no substitutes to date, there are no other sources that could 'backstop' water prices (cross-price elasticity demand).⁹¹ In addition, in some cases such as water supply and water for irrigation, the prices of water not always reflect the real costs of provision. In contrast, in the case of oil there exist alternative sources of energy that can backstop oil prices, in addition oil prices reflect the costs of exploration and production, turning oil into the perfect commodity.

It is noteworthy that the real value of water may become apparent in times of unavailability, when economic losses are quantifiable, which is observable in the case of industrial users, energy generation and large-scale farming. Yet, there also exist unquantifiable losses in times of water scarcity, such as the effects of famine, water-borne diseases, and water-collection from faraway sources among others. These problems affect present and future human development *e.g.* malnutrition is linked to present and future physical and

⁸⁹ See for instance, the conflicts of water availability schedules in Central Asia in Victor □. Dukhovny and Vadim I. Sokolov, *Integrated Water Resources Management: Experience and Lessons Learned from Central Asia – towards the Fourth World Water Forum* (Tashkent: GWP - CACENA, 2005), 18.

⁹⁰ Palaniappan and Gleick, "Peak Water", 8-9. It is perhaps, pertinent to point out that while desalinization technologies are rapidly developing, they still imply high costs of operation and for the environment.

⁹¹ The notion of cross-price elasticity demand is relevant to explain the responsiveness of demand toward one good when the price of another good is changed. See Robert S. Pindyck and Daniel L. Rubinfeld, *Microeconomics*, 6th ed. (New Delhi: Prentice Hall of India, 2006), 34. In the case of water, there is no alternative good that demand for water could switch to.

intellectual performance, and the time children spend helping the collection of water, affects their intellectual development (education). The long-term effect of these problems is difficult to quantify.

In conclusion, water - from a demand perspective - is highly valued, yet for several uses *e.g.* human consumption, irrigation, ecosystems and the environment, such value cannot be expressed in water prices. In turn, market prices solely could not solve potential conflicts, arising from competition of water resources, where the lack of substitutes plays an important role. For this reason, the allocation of water resources requires a balanced approach to the interests of all users, including ecosystems and the environment.

2.2.4 The Social Perspective

The social perspective focuses especially on the access to water through supply of drinking water and sanitation, which for the purpose of this study could be summarised as human consumption and its competition with other uses of water resources. There exist numerous social aspects to water resources, such as cultural and recreational uses, as well as the empowerment of indigenous and women's rights through water management.⁹² These aspects are all interlinked and raise concerns about increasing stress over water resources.⁹³

Access to safe drinking water and sanitation are essential components of human development. The 2006 Human Development Report addresses the water crisis and its link to human development: 'deprivation in access to water is a silent crisis experienced by the poor'.⁹⁴ This report depicts the inequalities in water uses and shows that residents of poor areas in developing countries, such as Accra and Manila, paid more for water supply than residents in London and New York.⁹⁵ In 2000, the UN adopted the Millennium Development Goals (MDGs), which aim at reducing by half the amount of people without access to safe drinking water and sanitation. The target was met and in 2012 UNICEF reported that 2 billion people gained access to safe

⁹² World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 38, 51.

⁹³ *Ibid.*, 36-39.

⁹⁴ United Nations Development Programme, "Human Development Report 2006. Beyond scarcity: Power, poverty and the global water crisis", (New York: United Nations, 2006), 1.

⁹⁵ *Ibid.*, 52.

drinking water between 1990 and 2010.⁹⁶ Yet, 780 million people still lack access to safe drinking water and 2.5 billion live without improved sanitation.⁹⁷ The MDGs status report of 2010 forecasted that the world would achieve and exceed the goal of access to drinking water, and quite rightly was less optimistic as regards the goal on access to sanitation.⁹⁸

However, there exist other types of deprivations intimately linked to poverty, which are underlined by the lack of water resources. The 2011 Human Development Report (HDR) estimates that almost 1.75 billion people experience multidimensional poverty.⁹⁹ Multidimensional poverty does not only cover access to safe water for consumption, it also encompasses access to water for other basic activities that influence the quality of life. In turn, quality of life and fulfilment of basic human needs are included within the scope of the International Covenant on Social, Economic and Cultural Rights.¹⁰⁰ The right to water, as a stand-alone human right, was first addressed in 2002 by the Committee on Economic Social and Cultural Rights, which embeds the human right to water in Articles 11 and 12 of the Covenant.¹⁰¹ Finally, the

⁹⁶ World Health Organization, "Progress on Drinking Water and Sanitation. 2012 Update" (Geneva: World Health Organization, 2012), 4-5. Available at: <http://www.unicef.org/media/files/JMPPreport2012.pdf>, last visited June 20, 2013.

⁹⁷ *Ibid.*, 2. Previously it was reported that 2.6 people lacked access to improved sanitation. See WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP), "Progress on Sanitation and Drinking Water. 2010 Update," (Geneva: WHO/UNICEF, 2010), 6-7.

⁹⁸ United Nations, "The Millennium Development Goals: Report 2010", (New York: United Nations, 2010), 58, 61.

⁹⁹ United Nations Development Programme, "Human Development Report 2010. 20th Anniversary Edition. The Real Wealth of Nations: Pathways to Human Development" (New York: United Nations, 2010), 96. The notion of multidimensional poverty is explained in the HDR in terms of The Multidimensional Poverty Index (MPI), which identifies 'multiple deprivations at the individual level in health, education and standard of living'. In this case standard of living is estimated by thresholds of basic access to services, such electricity, clean drinking water, adequate sanitation, clean cooking fuel. It also refer to accessibility to basic goods, such having a home with a dirt-free floor, owning a car, a truck or similar motorized vehicle, and owning at most one of these assets: bicycle, motorcycle, radio, refrigerator, telephone. See *ibid.*, 221.

¹⁰⁰ See Articles 11 (Right to an Adequate Standard of Living) and Article 12 (Right to Health) of the International Covenant on Economic, Social and Cultural Rights, General Assembly Resolution 2200A (XXI) of 16 December 1966 (ratification and accession), entry into force 3 January 1976.

¹⁰¹ See Committee on Economic, Social And Cultural Rights, '*Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social and Cultural Rights*' General Comment No. 15 (2002), *The right to water (arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights)*, E/C.12/2002/11 20 January 2003, Twenty-ninth Session Geneva, 11-29 November 2002, paras 1-3. See also: Human Rights Council, '*Report of the independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation, Catarina de Albuquerque*', Addendum, Progress report on the compilation of good practices, Fifteenth session, A/HRC/15/31/Add.1, 1 July 2010; Human Rights Council, '*Human rights and access to safe drinking water and sanitation*', GA Assembly United Nations, A/HRC/RES/15/9, October 6, 2010; Human Rights Council, '*Human rights and access to safe drinking water and sanitation*', GA, United Nations, A/HRC/15/L.14, September 24, 2010.

human right to water and sanitation was expressly recognised by the General Assembly of the UN in 2010, which adopted Resolution A/RES/64/292.¹⁰²

The efforts made by national governments to realise the right to water imply the need for private and public investment, as well as aid funding.¹⁰³ However, the recent past has shown a tense relationship between foreign investment and government's measures regulating water supply and access to water. This issue will be further analysed in Chapters III and IV.

2.3 The Global Water Crisis: Pressures over Water Resources

Currently, it is widely acknowledged that the world is in a water crisis or under the threat thereof.¹⁰⁴ Increasingly, the international community is taking consciousness of this crisis and is looking into ways to tackle water stress, and reduce the effects of water scarcity.¹⁰⁵ While it cannot be asserted that there exists a mechanism of global water governance in place,¹⁰⁶ there exists persuasive evidence of emerging trends aiming to promote coordinated and coherent mechanisms of water resources management. However, the process has proven challenging, Conca, for instance, asserts that there continues to be a deep underlying struggle amongst the international

¹⁰² General Assembly, United Nations, '*The human right to water and sanitation Resolution*', A/RES/64/292, August 3, 2010.

¹⁰³ Human Rights Council, '*Report of the independent expert on the issue of human rights obligations related to access to safe drinking water and sanitation, Catarina de Albuquerque*', A/HRC/15/31, 15th Session, June 29, 2010

¹⁰⁴ Orr, Cartwright and Tickner, "Understanding water risks A primer on the consequences of water scarcity for government and business"; World Economic Forum, *Global Risks 2011, Sixth Edition*. "An initiative of the Risk Response Network", (Geneva: World Economic Forum, 2011); World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World"; World Water Assessment Programme, "The United Nations World Water Development Report 2: Water a Shared Responsibility."

¹⁰⁵ This work adopts the notions of water stress and water scarcity based on the amounts of water resources available proposed by the Human Development Report in 2006. The HDR 2006 notes that the quantity of water, considered adequate, to meet industry, agriculture, energy and environmental requirements is 1700 cubic metres per person. Water available below that threshold is considered to be a situation of water stress. On the other hand, availability of water under 1000 cubic metres is regarded as water scarcity, and below 500 cubic metres, extreme water scarcity. See United Nations Development Programme, "Human Development Report 2006. Beyond scarcity: Power, poverty and the global water crisis," 135. There is, however, another approach to water scarcity which does not only consider physical availability of water resources, this aspect was addressed by the HDR 2006, which stated:

'Water scarcity can be physical, economic or institutional, and—like water itself—it can fluctuate over time and space. Scarcity is ultimately a function of supply and demand. But both sides of the supply-demand equation are shaped by political choices and public policies'. *Ibid.*, 134.

¹⁰⁶ Claudia Pahl-Wostl, Joyeeta Gupta, and Daniel Petry, "Governance and the Global Water System: A Theoretical Exploration" *Global Governance* 14(2008), 421.

community striving for a coordinated regime of global water governance.¹⁰⁷ As a result, it seems important to identify the challenges water experts are confronted with, and what developments have been achieved towards water management.

In 2009, the UN in the WWDR3 exposed the link between water and other crises or potential crises, such as climate change, energy, food and financial markets. The WWDR3 stressed that unless these links are addressed with the aim of solving the water crisis, the other crises could worsen at all levels, and may lead to political instability.¹⁰⁸ In this vein, water experts warn that global sustainable management of freshwater is a daunting challenge, which despite efforts and commitments at different levels remains under-attended. Therefore, the issue of water security can only be adequately addressed in conjunction with two other convergent issues, namely energy security and food security.¹⁰⁹ The water crisis is not only linked to scarcity. It is also linked to other hazards such as flood, pollution, and extreme variability, all of which are also significant drivers of water crisis. On one hand, climate variability has significant effects on floods and droughts, aggravated by climate change; in turn, extreme weather events have harsher effects on developing countries, because they generally lack risk management and risk assessment capacity.¹¹⁰ On the other hand, water pollution originating from human and industrial activity¹¹¹ cannot always be tackled through treatment and reuse, as levels of water contamination may be high. Therefore, from a water management perspective, trade-offs between human development, economic growth and environmental protection appear to be unavoidable. The Secretary General of the UN remarks:

As the global economy grows, so will its thirst. This is not an issue of rich or poor, north or south. All regions are experiencing the problem of water stress. There is still enough water for all of us – but only so long as we keep it clean,

¹⁰⁷ Ken Conca, *Governing water: Contentious transnational politics and global institution building* (Cambridge: MIT Press, 2005), 6.

¹⁰⁸ World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", XX.

¹⁰⁹ Patricia Wouters, Sergei Vinogradov, and Bjoern-Oliver Magsig, "Water Security, Hydrosolidarity, and International Law: A River Runs Through It" *Yearbook of International Environmental Law* 19 (2010). See also the system diagram for risks associated with the water-food-energy nexus, and the risks connected to these three main security risks: World Economic Forum, "Global Risks 2011", Sixth Edition. An initiative of the Risk Response Network", 29.

¹¹⁰ World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 211.

¹¹¹ See Section 2.2 which addresses the social perspective of water resources

use it more wisely and share it fairly. Governments must engage and lead, and the private sector also has a role to play in this effort.¹¹²

The World Economic Forum, in its 2011 Global Risks Report, identified a landscape of risks grouped into five categories: economic risks (extreme energy price volatility), environmental risks (storms, flooding, climate change and biodiversity loss), societal risks (water security and demographic challenges), geopolitical risks (global governance failures) and technological risks.¹¹³ In addition, drivers - fundamental to human activity - can exacerbate the materialization of these risks. The vehicle interconnecting these drivers with clusters risks is water: 'climate change with water security, food security and extreme energy price volatility'.¹¹⁴ Two additional elements are noteworthy in relation to the clusters of risks: i) the inherent uncertainty of water resources and ii) the need for predictability and security by users of water resources.

All these elements, in combination, pose a challenging scenario for the near future. The problem may become more acute when the solutions come from different areas of expertise, which do not interact with one another, such as arbitral tribunals assessing investment disputes, linked to water resources.

Reference made to water crisis in the global context appears to be a long-term challenge that high and middle-income countries may eventually face. For low-income countries the 'water crisis is a silent one',¹¹⁵ which affects mostly the poor.¹¹⁶ The next section identifies the pressures over water resources, focusing on the drivers related to water stress.

¹¹² Ban Ki-Moon, Secretary-General, United Nations, as cited in: World Economic Forum Water Initiative, "The Bubble Is Close to Bursting: A Forecast of the Main Economic and Geopolitical Water Issues Likely to Arise in the World during the Next Two Decades. Draft for Discussion at the World Economic Forum Annual Meeting 2009", (World Economic Forum, 2009), 5.

¹¹³ World Economic Forum, "Global Risks 2011. Sixth Edition. An initiative of the Risk Response Network", Figure 1: Global Risks Landscape 2011: Perception data from the World Economic Forum's Global Risks Survey.

¹¹⁴ *Ibid.*, 45.

¹¹⁵ Kristen Lewis, ed. *Water governance for poverty reduction: Key issues and the UNDP response to millenium development goals* (New York: Water Governance Programme, Bureau for Development Policy, UNDP, 2004), 79.

¹¹⁶ The WWDR3 confirms that poor people are already facing a drinking water crisis: two in every three people lack access to safe drinking water and lives on two dollars a day, one in three lives on one dollar a day, and 385 million people live on less than one dollar a day. See World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 84.

2.3.1 Pressures on Water Resources

As explained above, the global water crisis is largely linked to an increased demand for water resources that continues to grow at alarming rates. Demand for water is not only attributable to demographic growth and human consumption and pollution. Indeed economic and social activities such as some cultural practices, globalization and trade have multiplying effects over the demand for water resources. Climate change constitutes an additional driver exacerbating water's already variable nature.¹¹⁷

Water stress results from an imbalance between water use and renewal of the water cycle, which may be due to water variability.¹¹⁸ Both quantity and quality of water resources are affected by water stress for reasons of over exploitation and pollution, respectively. The WWDR3 identifies three main drivers of water stress: demographic, economic and social.

2.3.1.1 Demographic Drivers

Population growth, gender and age distribution affect availability of fresh water resources.¹¹⁹ It is predicted that in the next 25 years, the population in Latin America and the Caribbean will increase by 50 per cent, while doubling in Africa and Asia.¹²⁰ It is further forecasted that by 2100, half of the global population will be concentrated in Sub-Saharan Africa and South Asia.¹²¹ Age distribution also constitutes an emergent concern. Life expectancy has increased, which requires greater amounts of water for health and elderly services. Furthermore, globalization and trade have an effect on young consumers' habits, as consumer corporations, e.g. fashion and IT corporations, often target youngsters. These drivers have direct effects on demand and pollution of water resources. In addition, migration and urbanization create additional pressure on the availability of water resources because population concentration in urban areas pushes up demand for water-related services.

¹¹⁷ *Ibid.*, 68.

¹¹⁸ For a notion of water stress see Chapter II, *supra* note 59.

¹¹⁹ World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 29-32.

¹²⁰ James Winpenny, "Financing Water For All", (Report of the World Panel on Financing Water Infrastructure, 2003), 5. (Hereinafter Camdessus Report)

¹²¹ World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 31.

2.3.1.2 Economic Drivers

Globalization and international trade in goods and services have a significant impact on a number of issues of global concern.¹²² Economic growth due to an increase in production of goods and services not only enlarges company 'footprints',¹²³ it also augments the consumption of energy, raw materials and labour and, in turn water resources. Two phenomena are worth highlighting in regard globalization and trade: i) the effect of biofuels on the food crisis, which has unforeseen consequences on land use, water consumption and fuel for transportation,¹²⁴ and ii) production of water intensive goods and services that are to be transported to the home country of investors. This phenomenon is known as 'virtual water',¹²⁵ and is relevant in the context of international investment, when assessing the movement of investment capital flows to locations where water availability allows for the manufacture and production of high water content goods and services. Investment in land for farming may have negative impacts on indigenous landowners as local populations are pushed from their land in order to allow the entry of private investors, foreign or national:

It is no longer just the crops that are commodities: rather, it is the land and water for agriculture themselves that are increasingly becoming commoditised, increasingly subject to globalized rights of access.¹²⁶

¹²² *Ibid.*, 32-36.

¹²³ 'Footprints' are defined as the measure of human demand on earth's ecosystems.

¹²⁴ The High Level Conference on World Food Security, cautiously addressed the link between biofuel production and food crisis, advising further research in order to assess such relationship: 'It is essential to address the challenges and opportunities posed by biofuels, in view of the world's food security, energy and sustainable development needs. We are convinced that in-depth studies are necessary to ensure that production and use of biofuels is sustainable in accordance with the three pillars of sustainable development and takes into account the need to achieve and maintain global food security'. See the Declaration of the High-Level Conference on World Food Security: The Challenges of Climate Change and Bioenergy, ed. FAO, WFP, and IFAD (Rome June 5 2008), article 7(f).

On the other hand, however, the World Economic Forum warns that the production of biofuels posts high risks for water resources with the potential to 'consume between 20-100% of the total quantity of water now used worldwide for agriculture'; such situation according to the Forum constitutes an unsustainable trade-off. See World Economic Forum, "Global Risks 2011. Sixth Edition. An initiative of the Risk Response Network", 31.

¹²⁵ 'Countries with more water are able to trade water-intensive goods for export. Water embedded in traded crops has been termed 'virtual water'. Virtual water trade has been suggested as a way to alleviate water shortages'. See Orr, Cartwright and Tickner, "Understanding water risks A primer on the consequences of water scarcity for government and business", 18.

¹²⁶ Smaller and Mann, "A Thirst for Distant Lands: Foreign investment in agricultural land and water", 7.

Water demand for economic development may also give rise to competition for the resource amongst economic sectors, such as industry, mining, energy generation, etc. In addition, such competition can exacerbate the relationship between local users and foreign investors.

2.3.1.3 Social Drivers

Social drivers¹²⁷ relating to water resources are linked to poverty, education, social values and lifestyle. Poverty and education are intimately related to people's lack of choices and knowledge about adequate use and management of water resources. People in poor regions use - and sometimes abuse - natural resources with the intent to survive in the short-run. Understandably populations with imminent needs do not necessarily pay attention to environmental sustainability and the needs of future generations. Therefore, depletion of inland aquifers and inadequate sanitation services contribute to an accelerated pollution of water resources. Education is consequently a key answer for poverty alleviation and in turn for better management of water resources. Governments focusing on the social pillar of sustainable development often face trade-offs to the other two pillars (economic and environment) because, as the WWDR3 suggests, some level of economic development is desirable before environmental concerns can be tackled.¹²⁸

Cultural values and lifestyle also constitute social drivers and are linked to age distribution, as mentioned above. The former determines people's views toward the environment and the role such views play in sustaining it; lifestyle is increasingly linked to the roles people desire and the place they achieve within their society. Changes in lifestyle are largely linked to the globalization of information and economic growth. For instance, rising incomes have an impact on China's consumption of meat, which has grown from 20 kilograms per person per year in 1985 to 50 kilograms in 2000 and it is expected to grow further to 85 kilograms by 2030.¹²⁹

¹²⁷ World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 36-39.

¹²⁸ *Ibid.*, 37.

¹²⁹ James Keeley, "Global dimensions of China's food production and consumption", presentation at Overseas Development Institute Public Event: Can China continue feeding itself? Climate change, water stress and the global food system, 9 October 2008.

The drivers for water stress are likely to exacerbate competition for the resource in the near future. The measures necessary to prevent and to settle water conflicts are far from being identified and tested. In this vein, it is important to consider that legal issues related to water are not always dealt with by water and environmental lawyers. Water resources are central to most human and economic activities, and are therefore potentially subject matter of disputes outside the realm of water law. It is likely that trade and investment dispute resolution mechanisms may be confronted with water related disputes.

2.3.2 Drinking Water Supply and Access to Water

Before addressing water supply (also referred to in this work as water services, two clarifications need to be made: i) drinking water supply is relevant in the context of international investment arbitration because there have been various high profile investment disputes over the provision of water services. In this regard, the relationship between water services and investment protection illustrates people's sensitivities and the intense scrutiny around water for human consumption, ii) it is also important to state that water services regulation is outside the scope of this work and its analysis is limited to the use of water resources for human consumption in relation to other uses of water resources. Therefore, this work does not deal with the economic regulation of water supply, subsidies for the poor, or expansion of the network to reach under-served areas.

The issue of drinking water supply has been addressed in the context of Section 2.2.4 (Social Perspective). Water services have been at the core of debates regarding the human right to water, as well as the private/public provision of water services. Discussions in such contexts have had an important effect on the way consumers, governments, corporations, and NGOs perceive the provision of water services.

Water supply and sanitation constitute an integral component of water resources management and their provision is part of the overall allocation of water resources. Water demand for human consumption amounts to ten per

cent of the total demand for water,¹³⁰ and its supply has priority over other demands.¹³¹

At the core of the challenges linked to water supply was the reduction by half of the population without access to safe and adequate water. This goal was achieved in 2010, with some 780 million people still to access safe drinking water,¹³² with the UN General Assembly recognising the status of access to safe drinking water as a human right:

[The GA] *calls upon* States and international organizations to provide financial resources, capacity-building and technology transfer, through international assistance and cooperation, in particular to developing countries, in order to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all.¹³³

¹³⁰ In contrast, agriculture demands 70 per cent and industry and energy, together, 20 per cent of the total demand. See World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World," 99.

¹³¹ Office of the High Commissioner of Human Rights, "*General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)*", adopted at the Twenty-ninth Session of the Committee on Economic, Social and Cultural Rights, on 20 January 2003 (Contained in Document E/C.12/2002/11), para 6; United Nations, "Conference on Environment & Development, "Agenda 21", (Rio de Janeiro, Brazil, June 1992), 18.6; United Nations, "Report of the World Summit on Sustainable Development," (Johannesburg2002), para 26, (c). On this point see Chapter II, Section 2.2.4, *supra* notes 54 and 55.

Water resources for human consumption could be affected under the Eminent Domain, when water is needed for municipal purposes See Article § 11.033 of the 2005 Texas Water Code, Chapter 11, sub-chapter A General Provisions. The Peruvian Water Act (Ley N° 29338 of 31 de marzo de 2009) pursuant to Article 35 states the order of priority for uses of water resources: First human consumption (Uso Primario-Articles 36-38), which is basic use of water from any source, by mechanical means which does not require a licence and is limited to the satisfaction of basic human needs; Second: water services supply (uso poblacional-Article 39) and Third: productive use (uso productivo- Article 42). The Mexican Water Act, last amendment published on 8 June 2012 (Ley Nacional de Aguas) gives priority to domestic use and public use (Article 13 BIS 4, 14 BIS 5 XXII).

¹³² In March 2012 the World Health Organisation reported that MDG to reduce by half the amount of people without access to safe drinking water had been met: The report, *Progress on Drinking Water and Sanitation 2012*, by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, says at the end of 2010 89% of the world's population, or 6.1 billion people, used improved drinking water sources. This is one per cent more than the 88% MDG target. The report estimates that by 2015 92% of the global population will have access to improved drinking water.' See World Health Organisation, Media Centre, '*Millennium Development Goal drinking water target met*', March 6, 2012, Geneva, New York. Available at: http://www.who.int/mediacentre/news/releases/2012/drinking_water_20120306/en/ last visited September 10, 2012. See also Chapter II, *supra* notes 50 and 51.

In contrast, the goal of providing sanitation to the world's population is behind target. As to 2012 still 2.5 billion people lack access to improved sanitation. See World Health Organisation, Media Centre, '*Millennium Development Goal drinking water target met*', March 6, 2012, Geneva, New York. Available at:http://www.who.int/mediacentre/news/releases/2012/drinking_water_20120306/en/, last visited September 10, 2012

¹³³ See Chapter II *supra* note 56. (GA, A/RES/64/292).

The Camdessus Report estimate that in 2003 the financing of water services in developing countries amounted to USD 13 billion a year and that an additional USD ten billion would be required to meet the 2015 MDGs, by means 'basic standards of service and technology'.¹³⁴ Challenges to the financing of drinking water and sanitation are not only faced by developing countries. While populations in developed countries do have access to water and sanitation, in the context of investment, developed countries face challenges linked to rehabilitation, maintenance and compliance with increasingly strict health and environmental regulations of existing infrastructure.¹³⁵ The OECD reports that France and the United Kingdom (UK) may require 20 per cent increase in water expenditure, as a share of their gross domestic product (GDP), in order to maintain current levels in water services.¹³⁶ In the case of South Korea and Japan this increase would be 40 per cent.¹³⁷ The challenges for countries which have already reached significant levels of development with regard to access to water and sanitation is, therefore, not less intimidating than that of developing countries. This means not only increased water consumption, it also means higher pollution linked to sewage. In turn, sewage treatment (waterborne waste) requires further water resources and energy to operate sewerage systems.

In the past, Governments resorted to private sector participation with the aim of improving water management and infrastructure. Such participation was deemed necessary to avoid alleged inefficiencies entrenched in the provision of public services by governmental agencies, and overcome the lack of investment capital to expand water infrastructure and reach a wider sector of the population.¹³⁸ Private sector participation, however, has not always been successful and in some cases, has turned into disputes between operators and governments. Bechtel in Bolivia,¹³⁹ Biwater Gauff in Tanzania,¹⁴⁰ and Azurix, Vivendi and others in Argentina¹⁴¹ are examples of water supply projects that

¹³⁴ Winpenny, "Financing Water For All", 3.

¹³⁵ Organisation for Economic Co-operation and Development, "Managing Water for All: An OECD Perspective on Pricing and Financing. Key Messages for Policy Makers", (Paris: OECD, 2009), 7.

¹³⁶ *Ibid.*

¹³⁷ *Ibid.* Data regarding Japan does not include current demands due to the earthquake.

¹³⁸ *Ibid.*, 10.

¹³⁹ See Section 2.5.1.1 for the case of *Aguas del Tunari S.A. v Republic of Bolivia*, ICSID Case No. ARB/02/3.

¹⁴⁰ See Section 2.5.1.2 for the case of *Biwater Gauff (Tanzania) Limited v United Republic of Tanzania*, ICSID Case No. ARB/05/22.

¹⁴¹ See Section 2.5.1.3 for the case of *Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v Argentine Republic*, ICSID Case No. ARB/97/3.

failed due to a combination of political, social and economic variables, which in the context of foreign investment are exacerbated by the negative perception that the population already has towards the idea of transnational corporations providing national public services.¹⁴² There is a connection between the failure of water services projects, the unique nature of water (as in its physical, economic and social components) and the entitlement people feel towards water to meet basic human needs. This connection is linked to the social aspect of water resources, which resists approaching water as an economic good, because it is essential for human life. In any case, the participation of foreign investment remains limited and closely scrutinised by the civil society. By 2008 private investment in water supply amounted to around 11 per cent of total capital investment,¹⁴³ which is not all of foreign origin. Indeed, the OECD reports that during the 1990s, five international companies were granted 53 per cent of the relevant contracts for water related projects in developing countries.¹⁴⁴ In contrast, by 2000 the number of such companies acquiring new contracts had dropped to 23 per cent.¹⁴⁵ Furthermore, it seems unlikely that there will be many new large water services projects that involve significant flow of foreign direct investment, such as divestiture or concessions.¹⁴⁶ Currently, the World Bank Private Participation and

¹⁴² Mann, "Who Owns "Your" Water? Reclaiming Water as a Public Good under International Trade and Investment Law", 3. See also with respect to privatisation processes in water services Susan Spronk and Carlos Crespo, "Water, National Sovereignty and Social Resistance: Bilateral Investment Treaties and the Struggles against Multinational Water Companies in Cochabamba and El Alto, Bolivia" *Law, Social Justice & Global Development (LGD)* 1(2008); Maria Sánchez-Moreno and Tracy MacFarland Higgins, "No Recourse: Transnational corporations and the Protection of economic, social, and cultural rights in Bolivia" *Fordham International Law Journal* 27, no. 5 (2004); O'Neill, "Water and Freedom: The Privatization of Water and its Implications for Democracy and Human Rights in the Developing World."

¹⁴³David Lloyd Owen, *Pinsent Masons Water Yearbook 2007 - 2008* (London: Pinsent Masons, 2007), 27.

¹⁴⁴ Organisation for Economic Co-operation and Development, "Managing Water for All: An OECD Perspective on Pricing and Financing. Key Messages for Policy Makers", 11.

¹⁴⁵ *Ibid.*

¹⁴⁶ The terms for private involvement, public-private partnership involvement and public involvement in the provision of water services and sewerage are diverse and sometimes allow for different meanings. While the provision of water services is outside the scope of this work, for the purpose of clarity it is useful to mention some of these terms. From high to low degrees of private involvement in the provision of water services (drinking water supply and sewerage): divestiture, followed by concession, lease contracts, *affermage* and management, franchising and O&M contracts. Public-private partnerships from high to low involvement can be found under: build operate and transfer (BOT), built own operate transfer (BOOT), build own operate (BOO), among the most common ones, as well as joint venture, services, corporatisation and performance contracts. Finally public involvement is undertaken under cooperative and municipal or provincial authorities. See Jeffrey Delmon, "Understanding Options for Public-Private Partnerships in Infrastructure Sorting out the forest from the trees: BOT, DBFO, DCMF, concession, lease...", (Washington: Finance Economics & Urban Department Finance and Guarantees Unit - World Bank, 2010), 12.

Infrastructure Database shows more projects relating to water treatment plants and fewer projects relating to the supply of water. Likewise, while there is private participation, it does not necessarily come from foreign investors, but rather from private national investors.¹⁴⁷ Therefore, there appears to be a transformation of private participation in water supply due to new forms of public private partnerships (PPPs)¹⁴⁸ that seek to eliminate political and regulatory risks through shorter agreements and lower levels of investment and involvement, such as lease and management contracts.¹⁴⁹ Past conflicts and new trends in water-related projects with private investment involvement seem to reflect the high sensitivity over water supply, which is linked to water as a human right:

people think of water resources as public property. They feel entitled to water. They have an opinion about it. Because they drink it and know that life isn't possible without it, they can get emotional about water.¹⁵⁰

Decision-making in the water sector entails a high degree of public involvement – formal and informal – which needs to be properly channelled by governments through democratic processes.

This thesis does not adopt a position as to whether the private or public sectors should provide water services. However, it observes that the highly social component in water resources and the feeling of entitlement people share towards water, exacerbate the relationship between consumers and providers. Rarely have governments been responsible for the failure of water projects in the eyes of the population; it is corporations that seem to bear the political and social risks of water services projects. Indeed, this hypothesis

¹⁴⁷ By the end of 2011 the World Bank reports 31 water related projects, from which 25 took place in China, with 6 projects undertaken totally or partially by foreign investors. Latin America records four projects, of which two were totally or partially undertaken by foreign investors (under BOT), but directly supplying water services. The last two took place in the Middle East, in both cases undertaken by foreign investor; however, only under management and lease contract for water treatment plants. See The World Bank, 'Private Participation in Infrastructure Database', PPI Data update note 76, (Washington: September 2012), 4-8. Available at: <http://ppi.worldbank.org/features/September2012/Water%20Note%20%20Final%202011.pdf>, last visited 4 February 2013

¹⁴⁸ Marin points out that numerous public-private partnerships increasingly avoid private ownership of the infrastructure, which implies less risk for the private operator. See Philippe Marin, "Public-Private Partnerships for Urban Water Utilities A Review of Experiences in Developing Countries", (Washington: World Bank, 2009), 8.

¹⁴⁹ Organisation for Economic Co-operation and Development, "Managing Water for All: An OECD Perspective on Pricing and Financing. Key Messages for Policy Makers", 11.

¹⁵⁰ See Ronald Griffin, *Water Resources Economics. The Analysis of Scarcity, Policies and Projects*: Ch.2, 2.

appears to be reflected in the decrease of private involvement in the provision of water services or the change of such an involvement towards less visible participation. These aspects are relevant in the context of international investment law, and may illustrate potential conflicts around water services, which are linked to management of water resources.

2.4 Water Governance: Ownership, Management and Regulation

The previous sections' purpose was to assert the especial nature of water resources, based on a combination of physical, social and economic characteristics. This Section seeks to illustrate that such special nature of water resources has played a pivotal role in the way States designed their ownership and allocation systems, which is quite different from the systems of ownership and allocation of other natural resources.

Addressing governance in water requires a two-fold consideration. Firstly, water governance at the international level, and secondly, water governance at the local or national level. This Section addresses both levels in the context of the special nature of water resources and the particular types of ownership and regulation. Water governance within the international context (first subsection) serves as an umbrella of commonly identified challenges and proposed actions to be implemented by States at the national level. In this vein, Section 2.4.1 makes a brief historical reference to water resources management in the international context, linking its implementation in domestic law. Subsequently, Section 2.4.2 addresses water governance from a national law perspective. This Section considers the need for a holistic approach to water management, which has given rise to IWRM. Furthermore, climate change and increasing hydrological variability are briefly discussed.

This work uses the term 'regulation' in a broad sense, thus it refers to laws, decrees, administrative acts and any other decision adopted by the host State, which may affect the interests of a foreign investor. Regulations can be adopted by governmental institutions at all levels *i.e.* parliaments, ministries, national and local.

2.4.1 Global Governance of Water Resources

This section revisits some of the most relevant documents adopted by the international community in the area of water management and the protection of the environment.¹⁵¹ There is also increasing consensus on the need to address and prevent the effects of an acute water crisis and its connection with food and energy crises.¹⁵² This means that allocation and reallocation of water resources, to meet new and larger demands, into line with national policies. This will require special attention to the regulatory prerogatives of States, as well as greater levels of adaptive management. In this context, the notion of governance acquires greater relevance.

In 1997 the UN Development Programme (UNDP) Report defined governance in the following terms:

Governance can be seen as the exercise of economic, political and administrative authority to manage a country's affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences.¹⁵³

On the basis of the former definition the Global Water Partnership (GWP) built a definition of water governance as a:

¹⁵¹ For a general discussion on fairness and legitimacy of global or international governance and institutions, and the discussion on the legitimacy of this regime, see primarily Thomas M. Franck, *Fairness in International Law and Institutions* (Oxford: Oxford University Press, 1995); Daniel Bodansky, "The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?" *American Journal of International Law* 93(1999). For another critic on the effectiveness of governance of water at the international level, referred to by the author as expert networks, see Conca, *Governing water: Contentious transnational politics and global institution building*.

¹⁵² United Nations Development Programme, "Human Development Report 2010. 20th Anniversary Edition. The Real Wealth of Nations: Pathways to Human Development"; World Economic Forum, "Global Risks 2011. Sixth Edition. An initiative of the Risk Response Network"; World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World"; Wouters, Vinogradov, and Magsig, "Water Security, Hydrosolidarity, and International Law: A River Runs Through It".

¹⁵³ United National Development Programme (UNDP), "Good governance - and sustainable human development", Governance for sustainable human development A UNDP policy document, (New York: United Nations, 1997), available at <http://mirror.undp.org/magnet/policy/chapter1.htm#b>, last visited May 10, 2011.

range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society.¹⁵⁴

Rogers and Hall stress that governance is not defined in a single manner, conversely it considers various approaches (such as accountability, democracy, human rights, among others) to the way in which 'allocative and regulatory politics' play a role in the management of water resources, from a natural, social and economic perspectives.¹⁵⁵ This last element is of special interest to this work given that allocation of water resources implies competition among users whose interaction may also be affected by, or will affect, governments' strategies and policies.

Declarations, conferences, summits and forums have taken place over the last 40 years: some under the auspices of the UN and some as multi-stakeholder forums *e.g.* World Water Forums and non-UN meetings *e.g.* the International Conference on Freshwaters held in Bonn and the Dublin Conference which has given rise to the Principles contained in the Dublin Statement.¹⁵⁶

The UN Conference on the Human Environment - held in Stockholm in 1972 - declared water as one of those representative samples of natural ecosystems that must be 'safeguarded for the benefit of present and future generations through careful planning or management'.¹⁵⁷ In 1977, the UN held a Conference on Water, in Mar del Plata, Argentina. This conference was the first of its kind, and its main objective was to promote greater awareness on the problems regarding water resources at the national as well as international levels. It recommended the implementation of systemic water resources assessments, as well as collaboration amongst governments to tackle the challenge of assessing water resources. The conference also recognised the right of access to water by all human beings.¹⁵⁸ The International Drinking Water Supply and Sanitation Decade 1981-1990, launched by the UN, and the Global Consultation on Safe Water and

¹⁵⁴ Peter Rogers and Alan W. Hall, "Effective Water Governance", (Stockholm: Global Water Partnership. Technical Committee (TEC), 2003), 7.

¹⁵⁵ *Ibid.*

¹⁵⁶ See Joseph Dellapenna and Joyeeta Gupta, "Toward Global Law on Water" *Global Governance* 14(2008), 6.

¹⁵⁷ United Nations Conference on the Human Environment, "Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June, 1972", (New York, 1973), Principle 2.

¹⁵⁸ United Nations, "Report of the United Nations Water Conference: Mar del Plata, 14-25 March 1977", (New York, Sales No. E.77.II.A.12 and corrigendum, 1977).

Sanitation in 1990, organised by the UNDP in New Delhi, focused on water supply and sanitation. The New Delhi meeting embraced the following principle for water supply: ‘some for all rather than more for some.’ The statement also included guiding principles for the protection of the environment ‘through integrated management of water resources’.¹⁵⁹

In 1992, five hundred participants - among which were government designated experts and representatives of intergovernmental and non-governmental organizations - attended the International Conference on Water and the Environment in Dublin, Ireland.¹⁶⁰ The outcome, known as the ‘Dublin Statement’, proposed four general guiding principles for the management of water resources:

- i) fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment;
- ii) water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels;
- iii) women play a central part in the provision, management and safeguarding of water; and
- iv) water has an economic value in all its competing uses and should be recognised as an economic good.¹⁶¹

The ‘Dublin Statement’ informed the recommendations embedded in Chapter 18 (Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources) of ‘Agenda 21’, adopted at the UN Conference on Environment and Development (UNCED) in Brazil – 1992.¹⁶² These conferences promoted the

¹⁵⁹ See United Nations: General Assembly, "Proclaiming of the International Drinking Water Supply and Sanitation Decade, Resolution 35/18. 55th Plenary Meeting", (New York, 10 November 1980). See also United Nations Development Programme, "Global consultation on safe water and sanitation for the 1990s: 10-14 September 1990, New Delhi, India", (New York, 1990), Guiding Principles and Principle 1.

¹⁶⁰ *Dublin Statement on Water and Sustainable Development*, Dublin, Ireland, 31 January 1992. In this meeting “The Conference participants call for fundamental new approaches to the assessment, development and management of freshwater resources, which can only be brought about through political commitment and involvement from the highest levels of government to the smallest communities”.

¹⁶¹ *Dublin Statement on Water and Sustainable Development*, Dublin, Ireland, 31 January 1992.

¹⁶² United Nations Conference on Environment Development, "United Nations Conference on Environment and Development : Rio de Janeiro, 3-14 June 1992: item 9 of the provisional

need for an integrated approach to water resources management, whereby governments assess the various uses of water. They also recognised the disadvantages of a fragmented institutional approach to the management of water resources.¹⁶³ In order to overcome these disadvantages and achieve sustainability of water resources and services, the Conference suggested that governments could cooperate in adopting the principles of IWRM, in order to progressively meet targets by 2000 and 2025.¹⁶⁴ States were encouraged to adopt various possible activities in order to enhance their IWRM programmes, amongst which were to assess: i) their quantities of water resources, ii) natural disasters risk assessment, as well the link to the environment and society, iii) assessment of the various types of interrelation of freshwater bodies, on the surface and underground, taking into account issues of quality and quantity, and iv) conservation of water resources by means of adoption of water-efficient-use programmes.¹⁶⁵

Subsequently, in 2001, the International Conference on Freshwaters recognised that water is key for sustainable development, within its economic, social and environmental dimensions. The document titled 'Recommendation for Action' discussed the impact and benefits of the principles of IWRM, in the light of sustainable development, the needs of poor people, and the promotion of decentralization.¹⁶⁶ The Conference also addressed the important issue of management of risks to cope with variability and climate change:

Decision-making mechanisms under uncertainty should ensure flexibility to respond to both rapid onset disasters and long term changes to water resources. Risk management should be an integral part of water resources management. This should include establishing close co-ordination beyond the water sector.¹⁶⁷

agenda: adoption of agreements on environment and development: Agenda 21", (New York, 1992).

¹⁶³ The subsection Basis for Action of CH 18, Agenda 21 states: "The fragmentation of responsibilities for water resources development among sectoral agencies is proving, however, to be an even greater impediment to promoting integrated water management than had been anticipated. Effective implementation and coordination mechanisms are required". See *ibid.*, para. 18.6.

¹⁶⁴ By 2000 "(i) To have designed and initiated coasted and targeted national action programmes, and have put in place appropriate institutional structures and legal instruments; (ii) To have established efficient water-use programmes to attain sustainable resource utilization patterns". By 2025 "(i) To have achieved subsectoral targets of all freshwater programme areas". See *ibid.*, para. 18.11.

¹⁶⁵ *Ibid.*, para. 18.12.

¹⁶⁶ International Conference on Freshwater, "Bonn Recommendations for Action", (Bonn, 3-7 December, 2001). See specially Actions in the Field of Governance.

¹⁶⁷ *Ibid.*, Actions in the Field of Governance, point 9.

This statement appears to acknowledge the increasing unpredictability of water resources and the effects of climate change, asserting the need for flexibility within the decision-making processes. The 2002 World Summit on Sustainable Development, held in Johannesburg, recognised a need for more accountable and effective multilateral and international institutions.¹⁶⁸ The Summit proposed several actions to tackle the effects of climate change, climate variability and disaster prevention. In 2012 UN Water through the United Nations Environment Programme (UNEP) presented the status of implementation of the IWRM principles, which was launched at the UN Rio+20 Summit. The report is optimistic regarding the results observed in the implementation of the IWRM principles. Eighty per cent of countries have embarked in the adoption of the IWRM principles¹⁶⁹, 133 countries were responsive to the survey launched by UN Water showing different levels of implementation.¹⁷⁰

Another instance of water governance has taken place through the World Water Forums, every three years.¹⁷¹ While each forum focuses on specific themes, they all promote multi-stakeholder participation and discussion, through the organisation of thematic meetings, related to water management, water services, governance issues, economic regulation of services, access to water for the poorest and financing, amongst others. As argued above, the shaping of global policy, has not only been the effort of national governments and international institutions, it has also been the work of various stakeholders and non-governmental organisations and/or 'expert networks', such as the GWP, World Water Council, Worldwide Fund for Nature, among others.¹⁷²

¹⁶⁸ United Nations. World Summit Sustainable Development, "Report of the World Summit on Sustainable Development Johannesburg, South Africa, 26 August- 4 September, 2002. A/CONF.199/20", (Johannesburg, 2002), 4, para. 31.

¹⁶⁹ (UNWater) United Nations Environment Programme (UNEP), "Status Report on the Application of Integrated Approaches to Water Resources Management", (Nairobi, Kenya: UNEP, GWP, SIWI, UNDP, UNEP-DHI Centre for Water and Environment, 2012), iv.

¹⁷⁰ *Ibid.* Chapter IV addresses the status of implementation of IWRM principles in the context of broader discussion of property rights under international investment law. This discussion is relevant in the context of investment arbitration as it assess the likelihood of changes in legislation that could affect current water rights, especially of foreign investors. See Chapter IV, Section 4.3.1, footnote 14, 16-17.

¹⁷¹ The first Forum took place in Morocco in 1997, followed by the Netherlands 2000, Japan 2003, Mexico 2006, Istanbul 2009 and Marseille 2012.

¹⁷² As referred to by Conca in his analysis of global networks and water governance. See Conca, *Governing water: Contentious transnational politics and global institution building*.

Despite the importance of water resources, the adoption of harmonised rules and cooperation to protect fresh water resources, at the international level, appears to be a challenge. One possible reason may be underpinned by the sovereignty of States and resistance to give up some of this sovereignty.¹⁷³ On the other hand, it has been suggested that an 'epistemic community' among experts in the area of fresh water resources may be still in an early stage.¹⁷⁴ Nonetheless, states have taken steps forward in the adoption of integrated management policies, which shows that these conferences have served as a global community framework for the governance of water resources.¹⁷⁵ The extent to which such declarations and conferences have shaped regulatory frameworks at the national level remains to be evaluated within each national legal system, on a case-by-case basis.

¹⁷³ Note for example that the UN Convention on the Law of the Non-Navigational Uses of International Watercourses (the UN Watercourses Convention) adopted in 1997 has not yet entered into force, as it awaits ratification, approval or accession of five States (by June 2013). Article 36 of the Convention provides: '1. The present Convention shall enter into force on the ninetieth day following the date of deposit of the thirty-fifth instrument of ratification, acceptance, approval or accession with the Secretary-General of the United Nations.' http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-12&chapter=27&lang=en, last visited July 20, 2013.

In this vein, Chapter III addresses the issue of sovereignty in the context of the Police Power of States. See also Chapter III, Section 3.2.

¹⁷⁴ Dellapenna and Gupta comparing water governance communities with other environmental communities such as climate change, note that: 'Water lawyers are not yet integrated into the nascent epistemic community on water management, and as such there is little integration of policy ideas between these communities'. Dellapenna and Gupta, "Toward Global Law on Water", 450.

Note for instance that despite the fact that water is admittedly one of the most important vehicles of the effects of climate change, it has been difficult to include it within the negotiations on adaptation to climate change. See for instance the speech of Pasquale Steduto: "Let me be very clear. There is no development without water. There is no food security without water. There is most likely also no energy security without water. Water is the primary medium through which climate change influences the Earth's ecosystems and therefore people's livelihoods and well-being. If water is not further recognized in adaptation strategies and plans, we are making a big mistake." Pasquale Steduto, Chair, UN-Water and Service Chief, FAO Global Water Partnership, "*Water evaporates from the climate change negotiating text*", Press Release, November 3, 2009. In addition, the GWP asserts: '[T]he latest iteration of the negotiating text on adaptation, the so-called Non-Paper 31, has deleted any clear references to water and its management as a vital consideration for climate change adaptation'.

¹⁷⁵ See Dellapenna and Gupta, "Toward Global Law on Water", 6. On the assessment of global water conferences and water initiatives See: Robert G. Varady and Matthew Iles-Shih, "Global Water Initiatives: What Do the Experts Think? Report on a Survey of Leading Figures in the World of Water," in *Workshop on Impacts of Megaconferences on Global Water Development and Management* (Bangkok Third World Centre for Water Management (Mexico) with support from the Sasakawa Peace Foundation (USA and Japan), January 29-30, 2005). Peter H. Gleick and Jon Lane, "Large International Water Meetings: Time for a Reappraisal" *Water International* 30, no. 3 (2005). Asit K. Biswas and Cecilia Tortajada, *Impacts of Megaconferences on the Water Sector* (Berlin: Springer, 2009).

The relevant inquiry, in the context of this work, is whether these emerging principles, which appear to be widely influential in the implementation of management practices, could have an effect in the approach of international investment tribunals to water rights or water entitlements granted to foreign investors. This potential encounter of water governance and international investment law reflects on the question of whether these non-binding declarations and action plans, increasingly incorporated in the national legal systems of states, could shape such water rights by reflecting water's precarious nature, in light of hydrological variability and uncertainty. This issue will be addressed in the next chapters.

2.4.2 Water Resources Management: The National Law Dimension

This section will address the management of water resources from the perspective of the holistic approach promoted by several international conferences and meetings,¹⁷⁶ in the national context. The integrated approach to management informs the regulatory frameworks for the allocation and eventual reallocation of water resources.

One aim of this work is to address the extent of regulatory flexibility of host States in the context of international investment disputes, by developing a framework of analysis that distinguishes a legitimate regulation from an indirect expropriation. This Section should provide some insights to understand the relationship between water management and regulatory activity in the domestic law of the host State, which will in turn inform one criterion in the framework proposed in Chapter IV.

This work follows the approach of several international organisations, academics and water professionals, on the need for a holistic approach to water management, reflecting on the special nature of the resource.¹⁷⁷ It observes the traditional regulation of water resources and its evolution and continuous development in response to increased and more diversified needs. This might explain why the regulation of water resources is different in nature from the regulation of land and other types of property. This distinction is of relevance for the next chapters, which will address disputes arising out of foreign investment in the provision of water services, and potential investment

¹⁷⁶ See Section 2.4.1

¹⁷⁷ See Section 2.4.1.

disputes arising out of water resources management, where diverse regulatory measures will be assessed by investment tribunals. In such cases water is the common denominator. The question that arises relates to whether the alleged curtailment of property rights, by a regulatory measure, should be considered under a different approach.

2.4.2.1 *Towards an Integrated Water Management Approach*

Under an 'umbrella' of international declarations and action plans,¹⁷⁸ States are encouraged to shape their water resources management strategies with a view towards environmental sustainability and universal access to drinking water. Each national legal system ought to take into account its own social, economic and cultural realities when implementing some common principles.¹⁷⁹ An integrated approach to water resources management is probably the most common policy tool that has been devised for this purpose.¹⁸⁰ One definition of IWRM that aims at providing a common framework for implementation states:

IWRM is a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.¹⁸¹

The definition of IWRM incorporates the three contextual aspects under which water resources have been analysed in this thesis, namely environmental, economic and social.¹⁸² As such, the allocation of water resources requires adequate consideration of the synergies among these three aspects. IWRM aims at assisting to manage the availability of water for different users and activities that share common sources of water.¹⁸³ A growing number of States are adopting this integrated approach to water management, and are

¹⁷⁸ See Section 2.4.1.

¹⁷⁹ Salman M.A. Salman and Daniel D. Bradlow, *Regulatory Frameworks for Water Resources Management: A Comparative Study* (Washington: The World Bank, 2006), 11.

¹⁸⁰ Muhammad Rahaman Mizanur and Olli Varis, "Integrated water resources management: evolution, prospects and future challenges" *Sustainability: Science, Practice, & Policy* - <http://ejournal.nbii.org> 1, no. 1 (2005), 18.

¹⁸¹ Global Water Partnership Technical Advisory Committee (TAC), "Integrated Water Resources Management", (Stockholm: Global Water Partnership (GWP), 2000), 22.

¹⁸² See Sections 2.2.2, 2.2.3 and 2.2.4.

¹⁸³ The GWP identifies as one important challenge ahead 'To strike a balance between the use of the resources as a basis for the livelihood of the world's increasing population and the protection and conservation of the resource to sustain its functions and characteristics'. See Technical Advisory Committee (TAC), "Integrated Water Resources Management", 12.

implementing IWRM principles - within their regulatory traditions - in different fashions, for instance: i) by embracing the participation of competing users and stakeholders,¹⁸⁴ ii) by aiming to strike a balance between conservation and water use,¹⁸⁵ iii) by using incentives in order to achieve efficient use of water resources,¹⁸⁶ and iv) by building institutional capacity for water management.¹⁸⁷ These are some examples of cases where States have taken one or more steps in implementing the principles of IWRM.¹⁸⁸

There is broad consensus that IWRM should be implemented at the local level. Two strategies are considered for this: i) the traditional top-down strategy for policy implementation, and ii) a bottom-up strategy, which allows for the actual water-demand to drive the processes of management and allocation.¹⁸⁹ The International Conference on Freshwaters recommended the implementation of water 'management at the lowest appropriate level', specifically local governments, community organisations, and perhaps any group of stakeholders capable to manage some level of decision-making.¹⁹⁰ The bottom-up participation in the decision-making process has the advantage of informing national water policies and regulation by taking into account the needs of large and small consumers from different sectors and geographical points. While this is a positive step in terms of democratic and legitimacy perspectives, it may also lead to disagreements among stakeholders (*e.g.* central and regional governments, economic sectors or activities, communities upstream and downstream). After all, there are key interests at stake that may

¹⁸⁴ See for instance the case study of Zambia: *'Zambia: Integrated Water Resources Management and Water Efficiency (IWRM/WE) planning process'*, Global Water Partnership (GWP), ToolBox. Available at http://www.gwptoolbox.org/index.php?option=com_case&id=223&Itemid=39, last visited May 12, 2011. See also the case of Peru, regarding community participation: *'Peru: Participatory regional development planning in municipality of Cajamarca'*, Global Water Partnership (GWP), ToolBox. Available at: http://www.gwptoolbox.org/index.php?option=com_case&id=56&Itemid=43, last visited May 12, 2011.

¹⁸⁵ See as an example the case study from Indonesia: Indonesia: *'Indonesia's water resources policy reform process'*, Global Water Partnership (GWP), Toolbox. Available at: http://www.gwptoolbox.org/index.php?option=com_case&id=118, last visited May 12, 2011.

¹⁸⁶ See for instance the case study of Tunisia: *'Tunisia: Reform of irrigation policy and water conservation'*, Global Water Partnership (GWP), Toolbox. Available at http://www.gwptoolbox.org/index.php?option=com_case&id=17, last visited May 12, 2011

¹⁸⁷ See the case of Brazil: *'Brazil: The establishment of the National Water Agency'*, Global Water Partnership (GWP), Toolbox. Available at: http://www.gwptoolbox.org/index.php?option=com_case&id=274&Itemid=43, last visited May 12, 2011. See also the case of Colombia: *'Colombia: Building institutional coordination for water resources management'*, Global Water Partnership (GWP), Toolbox. Available at: http://www.gwptoolbox.org/index.php?option=com_case&id=64&Itemid=43, last visited May 12, 2011.

¹⁸⁸ On the developments of IWRM implementation see Rio+20 Summit in Section 2.4.1.

¹⁸⁹ Technical Advisory Committee (TAC), "Integrated Water Resources Management", 46.

¹⁹⁰ International Conference on Freshwater, "Bonn Recommendations for Action", Actions in the Field of Governance, Point 11.

try to influence the process of water allocation, thus exacerbating an appropriate and balanced apportion of water resources. In addition, disagreements of this kind may, in turn, have negative effects on the overall adoption of water policies, regulations and administrative decisions.¹⁹¹

In order to secure legal frameworks, the World Bank observed that while governments have mechanisms for the authorization of water use, prioritization and allocation policies are often ignored or poorly designed. Moreover, non-obvious uses, such as the protection of in stream flows and environmental uses are integrated inadequately or not integrated at all.¹⁹² However, changes in policy or adaptive regulation of water resources, linked to reallocation, could bring about high costs for the parties involved:

Governments should clearly indicate priorities for reallocations and establish practical rules for handling the year-to-year variability in precipitation and availability of water. The rights to water need to be clearly defined, with due concern shown for the interests of indigenous people, the poor, and other disadvantaged groups.¹⁹³

Through IWRM or other holistic management tools, the prioritization, allocation and eventual reallocation of water rights must be adaptive, but this approach can give rise to potential claims of takings of property rights. The question of whether such an action amounts to a taking and whether it requires compensation will be subject of discussion in the next sections and especially the next chapters. In this context, IWRM resembles a 'process' of continuous assessment, adaptation and perhaps resilience, due to water variability. It is not the purpose of this work to propose IWRM as the appropriate policy tool for the management of water resources, nor is it to

¹⁹¹ One such case is the privatisation process of the water services in the city of Cochabamba, Bolivia, where struggles between central and local governments, concluded in a poor bidding process, which in turn led to the so-called 'water war' in the city of Cochabamba. The trigger of the social unrest was the steep raise of water tariffs imposed by the company, in turn approved by the regulator. See William Finnegan, 'Letter from Bolivia. Leasing the Rain: The Race to Control Water Turns Violent', (The New Yorker, April 8, 2002), 44-47. For further details of this example see Section 2.5.1.1.

Another example took place in Argentina in the context of the provision of water services: The example of the water supply sector in Argentina illustrates a similar situation as the one described above: the local government of Tucuman in Argentina disagreed with the tariffs previously negotiated by the central government, which led to the conclusion of the concession contract for the provision of water services and the initiation of an international investment dispute against the Republic of Argentina. See J. Luis Guasch, Jean Jacques Laffont, and Stéphane Straub, "Concessions of infrastructure in Latin America: Government-led renegotiation" *Journal of Applied Econometrics* 22, no. 7 (2007): 1270.

¹⁹² The World Bank, "Water Resources Management", (Washington: The World Bank, 1993), 43-44.

¹⁹³ *Ibid.*, 44.

scrutinise the implementation processes and legal frameworks related to IWRM. IWRM has been developed through a process of negotiations at the international level and it, therefore embeds common principles and actions, without ignoring social, economic and environmental realities of each State.

The next subsection takes the discussion on the role of management of water resources one step further and addresses new challenges that may trigger recognition of the need for adaptability and flexibility.

2.4.2.2 Concerns around Hydrological Variability and Climate Change: New Challenges

As stated in the previous section, the international community envisions a holistic approach to the management of water resources. In doing so, it considers the 'long term nature of water resources management',¹⁹⁴ whereby management and allocation of water resources has historically relied on the assumption of invariability and consistency of fresh water resources.¹⁹⁵ Consequently, such an assumption informed national water regimes, consistent with traditional views of a relatively stable hydrological cycle. For instance, water supply in many countries relies on availability of expected amounts in dams and reservoirs, and any changes in the pattern of water sources, be it quality (*e.g.* temperature, level of pollution) or quantity, may result in an uncertainty of water supply that will negatively affect different users, *e.g.* farmers, industry, ecosystems.¹⁹⁶ However, -as expressed above - additional pressures over water could challenge traditional approaches to water management by revealing a growing need for prediction and reaction mechanisms. Climate change is expected to have an effect on climate variability, which constitutes a global driver for water stress. Water, in turn, plays a critical role as a vehicle for the impacts pertaining to climate change.

¹⁹⁴ Sadoff and Muller, "Perspectives on water and climate change adaptation. Better water resources management – Greater resilience today, more effective adaptation tomorrow", 1, 2.

¹⁹⁵ According to Kundzewicz, Z.W., L.J. Mata, N.W. Arnell, P. Döll, P. Kabat, B. Jiménez, K.A. Miller, T. Oki, Z. Sen and I.A. Shiklomanov, 2007: *Freshwater resources and their management*, in M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, eds, *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2007) 173-210, 196.

¹⁹⁶ Sadoff and Muller, "Perspectives on water and climate change adaptation. Better water resources management – Greater resilience today, more effective adaptation tomorrow" 1, 3-4.

The State of the Environment Report launched by the Australian Government concluded:

Climate change is an important issue for Australia. While there is debate about scientific predictions, it is almost universally accepted that temperatures are rising. The extent of rise is uncertain and continuous adaptation of environmental and sectoral policies, in an uncertain environment, is the key.¹⁹⁷

In the same vein, Hughes *et al* consider that despite the on-going debate with regard to the real impacts of climate change on the availability of water resources, it seems likely that the patterns of water variability will divert from previous and historical patterns.¹⁹⁸ In agreement with the above, Sadoff concludes that it seems reasonable to expect fierce competition among water users in the coming years,¹⁹⁹ and also to foresee that 'past rights and mechanisms may no longer be viable'.²⁰⁰ Indeed, in the past water policy instruments have developed over long periods of time, but currently there appears to be growing need for flexible and resilient policy making that can evolve and change rapidly in order to respond to climate variability and other challenges over water resources. Demsetz proposed that '[c]hanges in knowledge result in changes in production functions, market values, and aspirations'.²⁰¹ Consequently, there will also be a need for new and enhanced regulatory frameworks that take into account the high unpredictability of water availability:

Systems of water rights, allocation and conflict resolution mechanisms will need to be put in place or strengthened to deal with these new realities. Flexible systems will need to be developed to respond to extremes of water availability and unpredictability.²⁰²

¹⁹⁷ The State of the Environment Report 2006, available at: <http://www.environment.gov.au/soe/2006/publications/report/key-findings.html>, last visited March 5 2011. The latest Report on the Environment 2011, will be launched on December 31, 2011.

¹⁹⁸ See D. A. Hughes and S. J. L. Malloryb, "The importance of operating rules and assessments of beneficial use in water resource allocation policy and management" *Water Policy* 11(2009): 732.

¹⁹⁹ Sadoff and Muller, "Perspectives on water and climate change adaptation. Better water resources management – Greater resilience today, more effective adaptation tomorrow", 734.

²⁰⁰ *Ibid.*, 11.

²⁰¹ Harold Demsetz, "Toward a Theory of Property Rights" *The American Economic Review* 57, no. 2 (1967), 250.

²⁰² See Sadoff and Muller, "Perspectives on water and climate change adaptation. Better water resources management – Greater resilience today, more effective adaptation tomorrow", 11. See also Neuman discussing the case of the western part of the United States where existing law regarding property in water differs from the rest of the country. Janet C. Neuman, "Adaptive Management: How Water Law Needs to Change" *Environmental Law Reporter*, 31 no. 12 (2001).

The need for governments to adjust and ‘expand capacity to address existing regulatory vulnerabilities while anticipating and averting severe climate change effects’,²⁰³ constitute even a greater challenge for developing countries.

In conclusion, the effects of climate change over water resources and increased hydrological variability, affects the predictability of the hydrological cycle with consequences on water users - specifically - in the context of international investment law: i) adaptive policies and more flexible regulatory frameworks could mean increased governmental intervention, which in turn may raise concerns of political as well as regulatory risk, from a foreign investor’s perspective, ii) increased regulatory activity tackling rapid changes in the water cycle – prioritisation and allocation – may affect the predictability of water property rights/entitlements.

It is therefore, relevant to address the characteristics of ownership in water, and whether such characteristics influence the nature of property rights/entitlements over water resources. It is important to clarify that this work makes a differentiation between ownership of water resources and water property rights. In the context of international investment the allocation of water that travels in the streams, granted through permits, concession, licences, etc. may be protected under the ‘definition of investment’, thereby protected as a property right in a broad sense. Ownership of the resource, on the other hand, is understood as the property over water generally held by the State or considered as common good, under stewardship of the State.

2.4.3 Ownership, Control and Allocation of Water Resources

The uniqueness of water resources does not only lie in the combination of its physical characteristics. The historical context that has shaped the way in which water is appropriated and the current pressures over the resource also shapes the nature of water ownership and control.²⁰⁴ Thomson, citing Professor Joseph Sax’s work, asserts:

in order to understand water policy and address current societal needs, Sax emphasizes that one must first appreciate the uniqueness of water as revealed

²⁰³ Alejandro Camacho, "Adapting Governance to Climate Change: Managing Uncertainty Through a Learning Infrastructure" *Emory Law Journal* 59(2009), 17.

²⁰⁴ Cullet, "Water Law in a Globalised World: the Need for a New Conceptual Framework", 6.

in both its physical characteristics and the law's historical approach to water resource issues.²⁰⁵

Both the physical and historical context of water regulation shapes water ownership and allocation thereafter. According to Cullet various societies have embraced the basic premise within their water laws that water should not be subject to ownership.²⁰⁶ As to the mechanism to allocate water – from a government's perspective – or to acquire water rights – from a user's perspective – it varies amongst different national legal systems. Legal scholars have undertaken exhaustive examination of national water laws to compare the different manners in which water is allocated and the rights that such allocation involves.²⁰⁷ While doing similarly falls beyond the scope of this work, this section aims to achieve a general understanding of water ownership and argue that such ownership is different from other types of ownership such as land ownership.

The development of property systems in water and land followed two different paths. Although they might have shared a similar origin within an open-access regime or common property regime, property over land soon would move toward individual or private property systems.²⁰⁸

Conversely water would remain within the realm of open-access or would be nationalised by governments to be stewarded, however, rarely water recourses would become subject of private or individual ownership. .

Water scholars and practitioners often refer to the nature of water as a public good and as a common good without distinction.²⁰⁹ This work submits that these two concepts are different, yet in order to draw a distinction – in the

²⁰⁵ Barton Thompson Jr., refers to professor Sax's work and expose what it could be the underlying assumption that, arguably, contributed to shape water law and policy. See Barton H. Jr. Thompson, "Water Law as a Pragmatic Exercise: Professor Joseph Sax's Water Scholarship" *Ecology Law Quarterly* 25(1998-1999): 367.

²⁰⁶ Cullet, "Water Law in a Globalised World: the Need for a New Conceptual Framework", 236 (footnote omitted)

²⁰⁷ For a comparison of national legal systems see Salman and Bradlow, *Regulatory Frameworks for Water Resources Management: A Comparative Study*; Sarah Marjorie Hendry, "An Analytical Framework for Reform of National Water Law", (PhD Thesis, Water Law, Dundee, 2008); Dante Augusto Caponera, *Principles of Water Law and Administration: National and International* (Rotterdam: A.A. Balkema, 1992).

²⁰⁸ The late Prof. Elinor Ostrom addressed the common confusion of open-access regimes and common property regimes in her article "Private and Common Property Rights", in *Encyclopedia of Law and Economics: Civil Law and Economics*, ed. Gerrit De Geets and Bouckaert Boudewijn (Gent: Cheltenham, Edward Elgar, 2000), 335-36.

²⁰⁹ See for instance Stanton: 'The public good nature of water ... has had a decisive influence on the legal status of water...'. Stanton Kibel, 'Grasp on Water: A Natural Resource that Eludes NAFTA's Notion of Investment', *Ecology Law Quarterly*, 34, 2 (2007), 134.

context of this thesis – it is important to revisit the work of some economic and legal academics such as Elinor Ostrom, Richard Epstein and Siegfried von Ciriacy-Wantrup. Ostrom stresses the differences between *common property* regimes and *open access (res nullius)* regimes. While the concept of common property applies some way of exclusion for the benefit of the members of the community and some rules of enjoyment and use, the concept of open access is a system of non-property, non-exclusion and no rules. The term open access regime is akin to the concept public goods, which are generally non-rival and non-exclusive *e.g.* open seas and atmosphere.²¹⁰ Ciriacy-Wantrup and Bishop point out the indistinctive use of the terms open-access/non-owner or *res nullius* and commons/*res commune* or common property regime. They contend that the notion of commons (*res commune*) have been misused for some economists over the years to describe resources that had no-owners (*res nullius*), such as the fisheries in the high seas:²¹¹

The problems of managing fisheries in territorial waters and those on the high seas have similarities-they are fugitive resources-but they are very different in actual and potential institutional regulation.²¹²

Ostrom further explains that common-pool resources (different from the concept of common property regime) share with public goods the difficulty of physical and institutional exclusion of beneficiaries, resulting in a lack of investment to monitor and protect. Common-pool resources also share with private goods the characteristic that one's consumption affects quantities available to others.²¹³ Common-pool resources – such as water resources – can be owned by national or local governments, as well as private individuals or corporations. As Ostrom suggests there is no automatic relationship

²¹⁰ Ostrom adds that open access regimes are much less than proposed in the literature. Some open-access regimes are the result of 'conscious public policies' which aim to guarantee access to all citizens 'to the use of a resource within a political jurisdiction. The concept of *jus publicum* applies to their formal status, but effectively these resources are open access.' See Elinor Ostrom, 'Private and Common Property Rights', 336.

²¹¹ In this vein, several academics argue that Hardin referred to an *open access* regime in his seminal work: *The Tragedy of the Commons*, rather than a common property regime. See for instance: Elinor Ostrom, "Private and Common Property Rights", 335-36; Lee Anne Fennell, "Ostrom's Law: Property Rights in the Commons" *International Journal of the Commons* 5, no. 1 (2011), 12. Hardin's work describes the problem of open pastures where farmers could bring their cattle to graze. According to Hardin each farmer would have incentives to bring as much cattle as possible to graze, imposing the costs of overgrazing to other farmers also using the common land. Ultimately, such costs would result in the pastures being overexploited and consequently damaged.

²¹² S.V. Ciriacy-Wantrup and Richard C. Bishop, "'Common Property' as a Concept in Natural Resources Policy" *Natural Resources Journal* 15(1975), 715.

²¹³ Ostrom, "Private and Common Property Rights", 337-38. See also Demsetz, "Toward a Theory of Property Rights".

between common-pool resources and common property regimes.²¹⁴ This is better illustrated when one considers that rivers, lakes, groundwater basins are a good example of common-pool resources, which may be own by the State or be under the stewardship of the State. In this vein, several users could share the common-pool resource of a river, lake, basin, etc. The problem arises over the need to control access and use, which in practice have been addressed through a mechanism of allocation of water rights, with a much narrower scope of enjoyment, usage and alienability than – for instance – individual property of land.²¹⁵

This distinction is relevant in the context of water resources, as it clarifies the fact that the nature of the proprietary relationship between the user and the resource shapes the institutional arrangement for the regulation of the natural resource.²¹⁶ From a much broader perspective Professor Richard Epstein, asserts that water, within its original source, was considered as *res commune*, as opposed to *res nullius*. Epstein seems to be considering water within a common property regime, where water pertains to the community as a whole, where – by default – everyone is entitled to it, and no one can be deprived from it. Scott *et al* assert that except for the Roman Law approach to ownership of water as *public* or *private*, there is an overall notion of water as *res commune*, whose nature does not allow for ownership. According to such a view, a portion of water is, thus, used and restored to the flow for the use of the rest of the community: a term that is referred to as a ‘negative community’, and which disadvantages have been addressed above.²¹⁷

As Epstein explains the precise domain of common water is not always clear.²¹⁸ Nonetheless, the notion of commons remains useful to identify the regulation of water as distinct from the regulation of land. Epstein contends that *res commune* was used in order to:

²¹⁴ Elinor Ostrom, "Private and Common Property Rights", 338.

²¹⁵ See, for instance, a brief reference on this issue made by Epstein, in Richard A. Epstein, "The Historical Variation in Water Rights", in *The Evolution of Markets for Water: Theory and Practice in Australia*, ed. Jeff Bennett, *New Horizons in Environmental Economics* (Cheltenham: Edward Elgar, 2005), 25. See also Ostrom, "Private and Common Property Rights", 336-37.

²¹⁶ Note that in this case the definition of institution is an economic one, where ‘Institution’ is understood as a term that encompasses more than the organisation, constituted by either government, regulatory agency, etc. In this case institution means ‘the rules of the game’, which consider formal and informal constraints and their enforcement rules “Institutions are the humanly devised constraints that structure human interaction” See Douglas North, "Economic Performance Through Time" *American Economic Review* 84, no. 3 (1994), 360.

²¹⁷ Anthony Scott and Georgina Coustalin, "The Evolution of Water Rights" *Natural Resources Journal* 35(1995), 836. See also Epstein, "The Historical Variation in Water Rights", 28.

²¹⁸ Epstein, "The Historical Variation in Water Rights", 25.

establish a background legal environment for water rights that is the exact opposite of what it is for land [...] the paradigmatic act of acquiring ownership of land ... now constitutes the quintessential violation of the communal rights to water'.²¹⁹

The movement away from common property systems over land, toward individual property systems, responds to the need of full internalization of costs and benefits, which are understood in a broad sense, as linked to actual investment costs, as well as the implied costs of harmful effects due to the use and enjoyment of the land, *i.e.* pollution and depletion.²²⁰ Such externalities are identifiable by societies over long periods of time, and in some cases, without full rationalisation of the effects that new types of ownerships were to achieve.²²¹

Extensive analysis of land ownership is beyond the scope of this work. This brief reference to the evolution of land ownership intends to show the emergence of societal preferences and the needs of economic development that are different from water ownership and as a consequence water rights/entitlements. As Ostrom contends, property rights constitute a pivotal driver of economic development.²²²

In contrast, the ownership of water remains away from the concept of individual property systems, and the rights to use and enjoy water resources continues to be rather limited. Many legal systems around the world have reserved the ownership of water resources to the State. Under such a system, the State can exclude, manage and allocate the uses of water.²²³ Other jurisdictions, however, such as the common law systems, have refrained from stipulating the 'ownership of water', due to its physical characteristics and nature. Through these regimes, States have kept the power to control the uses

²¹⁹ *Ibid.*

²²⁰ The need may be understood in this context, when the benefits of full internalization outweigh the costs thereof. See Demsetz, "Toward a Theory of Property Rights", 350; Robert C. Ellickson, "Property in Land" *Yale Law Journal* 102 (1992-1993).

²²¹ Demsetz: 'I do not mean to assert or to deny that the adjustments in property rights which take place need be the result of a conscious endeavor to cope with new externality problems. These adjustments have arisen in western societies largely as a result of gradual changes in social mores and in common law precedents'. See Demsetz, "Toward a Theory of Property Rights", 350.

²²² Ostrom, "Private and Common Property Rights", 334.

²²³ Legal academics such as Caponera use the term public ownership of water resources, not be confused with a common property regime used by Ostrom above. On public ownership and its comparison with private ownership of water resources, see Dante A. Caponera, "Possible contents of and reasons for water law", in *Principles of water law and administration: national and international*, ed. Dante A. Caponera and Marcella Nanni (Routledge - Taylor & Francis, 2007), 138.

of water.²²⁴ In both scenarios, States have the power to steward and allocate the use of water, according to their strategies for social, economic and environmental development.

Historically, allocation/appropriation systems and control mechanisms respond to a community context, geographical location, and cultural values among others. As Dellapenna asserts '[i]n general, regions that were water rich had little need to develop rules, while water-poor regions had great need to do so'.²²⁵ Furthermore, regions facing water scarcity are more likely to develop legal regimes with 'defined private property rights'.²²⁶ Note, however, that geography and water availability have not always been the main driver for the adoption of water law regimes. While water scarcity triggered the development of a system of prior appropriation in the Western part of the United States (US),²²⁷ abundance gave rise to a riparian system within the common law of England.²²⁸ Other legal systems, such as the Spanish one, adopted customary rules developed by the Moors. These traditions were later exported from Spain to its colonies in South America and North America.²²⁹ Australia received the common law tradition from England; thus, adopting a riparian water law.²³⁰ However, in the case Australia the inherited English legal tradition ill fitted Australia's geography and water availability.²³¹ It follows that hydrological availability as well as information on variability should assist in shaping water policy and the scope of property.

Inadequate knowledge of the hydrological cycle in the past gave rise to misunderstandings of the water sources that integrated a single system. In other words, the unity of the hydrological cycle was not understood in its

²²⁴ *Ibid.*

²²⁵ Dellapenna and Gupta, "Toward Global Law on Water", 439.

²²⁶ Dellapenna explains this situation more specifically, when referring to the evolution of water allocation in the United States. 'As a result, concern over water law evolved to the west of Kansas City in the direction of well-defined private property rights—appropriative rights or dual systems that at least avoid the worst of the tragedy of the commons'. See Joseph W. Dellapenna, "United States: The Allocation of Surface Waters", in *The Evolution of the Law and Politics of Water*, ed. Joseph W. Dellapenna and Joyeeta Gupta (Springer, 2009), 191.

²²⁷ Dan A. Tarlock, "National water law: the foundations of sustainable water use" *Journal of Water Law* 15 no. 3-4 (2004), 121.

²²⁸ Epstein, "The Historical Variation in Water Rights", 7. For the development and evolution of water rights see Scott and Coustalin, "The Evolution of Water Rights". On the other hand, for the evolution of land rights, see Ellickson, "Property in Land."

²²⁹ Tarlock, "National water law: the foundations of sustainable water use", 121.

²³⁰ Stephen Hodgson, "Modern water rights. Theory and practice", (Rome: Development Law Service FAO Legal Office, Food and Agriculture Organization of the United Nations, 2006), 9. See also Scott and Coustalin, "The Evolution of Water Rights", 902.

²³¹ Janice Gray, "Legal approaches to the ownership, management and regulation of water from riparian rights to commodification" *Transforming Cultures* 1, no. 2 (2006), 72.

whole dimension. In this regard, the Ohio Supreme Court, following the English rule of absolute ownership of the resources under the soil (groundwater), considered:

the existence, origin, movement and course of such waters, and the causes which govern and direct their movements, are so secret, occult and concealed, that an attempt to administer any set of legal rules in respect to them would be involved in hopeless uncertainty, and would be, therefore, practically impossible.²³²

Surface water is generally under State's ownership, stewardship and control, while groundwater historically was usually attached to the land under the ownership of the landowner, as the maxim: '*a caelo usque ad centrum*' – 'the owner of the land owns everything located above and below his land, including groundwater'.²³³ However, this has progressively changed with time as evidence and knowledge concerning the interrelated nature of the hydrological cycle developed. For example, it is widely accepted today that groundwater is connected to surface water.²³⁴ It has also become common knowledge that increasing groundwater withdrawals impose a burden on *both* the river (surface water) and groundwater systems,²³⁵ affecting many more types of uses than was previously thought.

To date, largely due to the recognition of the close link between ground and surface water, increasing numbers of legal systems have placed groundwater (in addition to surface water) under the ownership and control of the State.²³⁶ It is therefore currently contended that States should steward groundwater and integrate its regulation with surface water regulation.²³⁷ "Grandfathering"

²³² *Frazier v Brown*, 12 Ohio St. 294, 311 (Ohio 1861). See also Juliane R. Borquin and A. Matthews, "Modern approach to groundwater allocation disputes: *Cline v. American Aggregates Corporation*" *Journal of Energy Law Policy* 7:2(1986), 361.

²³³ Caponera, "Possible contents of and reasons for water law", 138. Salman and Bradlow, *Regulatory Frameworks for Water Resources Management: A Comparative Study*: 145.

²³⁴ See Savenije, "Why water is not an ordinary economic good, or why the girl is special", 9. Principle No. 1 of the Dublin Statement, recognizes that management of water resources should be undertaken under the 'whole catchment area and groundwater aquifer', see *Dublin Statement on Water and Sustainable Development*, Dublin, Ireland, 31 January 1992. In the same vein the definition of Integrated Water Resources Management, adopts the holistic approach to the '[M]anagement of water, land and related resources', see Technical Advisory Committee (TAC), "Integrated Water Resources Management", 22.

²³⁵ Epstein when addressing the treatment of ground water, makes reference to the externalities that increasing consumption by some users impose on other uses, justifying as Demsetz before, the shift from one system of property rights to another, in this case from private ownership to public ownership. See Epstein, "The Historical Variation in Water Rights", 30-31.

²³⁶ Salman and Bradlow, *Regulatory Frameworks for Water Resources Management: A Comparative Study*: 145.

²³⁷ Thompson, "Water Law as a Pragmatic Exercise: Professor Joseph Sax's Water Scholarship," 370. See also Caponera, "Possible contents of and reasons for water law", 138; Salman and

is widely recognised in legal systems, where States –acquiring ownership or control - protect historic property rights temporarily or in perpetuity.²³⁸

To conclude, Professor Sax analysed the relationship between communities and water as the notion of ‘water as a heritage’ in which he identified the various links that communities developed in relation to water resources: i) communities’ rights to enjoy water resources, ii) communities’ control over water resources policies, and iii) the question of whether communities should enjoy greater rights than other individuals or entities.²³⁹ These three aspects appear to be timeless, linking water to communities appear to have largely shaped the way in which society feel about water resources, and the way that water is regulated and managed under most legal systems.

2.4.4 Water Rights and Entitlements: A Fragile Right

As regards the use of water, States may allow the use of water in a number of ways. Caponera identifies three such ways which can be observed alternatively on in combination: i) a *free use* regime, under which, water users are allowed to freely use rainwater, springs, ponds, flows within the boundaries of their private property (under such a regime, legislation might account for excessive use and for the need to avoid conflicts with other neighbouring water users),²⁴⁰ ii) a *declaration/registration* regime, which requires water users to register their use of water (this regime applies to measured uses of water, such as shallow wells and irrigation of limited areas. It may also include water management principles for the identification of particular regions and basins, in order to assess the demand for water, as well as potential competitors)²⁴¹ and iii) a *permit system*, which appears to be the most widely used regime for the regulation of water resources. The definition of a permit, in its broad sense, encompasses several types of administrative acts aimed at allowing

Bradlow, *Regulatory Frameworks for Water Resources Management: A Comparative Study*, 143-44. See also, e.g. Ley de Aguas No. 276 de la República de Costa Rica, Article 4. (Water Act, No. 276, Republic of Costa Rica, Article 4).

It is noteworthy that reference to springs can be an expression of groundwater that flows at the surface, which would otherwise be accessible through boreholes. On a brief notion of springs see Garth Van der Kamp, "The Hydrology of Springs in Relation to the Biodiversity of Spring Fauna: A Review" *Journal of the Kansas Entomological Society* 68, no. 2 (1995), 4.

²³⁸ See for instance Morocco Water Law Article 6; Arizona Groundwater Code.

²³⁹ See Thompson in his analysis of the Professor Sax’s water scholarship, Thompson, "Water Law as a Pragmatic Exercise: Professor Joseph Sax's Water Scholarship", 379-80.

²⁴⁰ Caponera, "Possible contents of and reasons for water law", 139-40.

²⁴¹ *Ibid.*

water users the enjoyment of – mostly – fixed quantities of water. The names differ from jurisdiction to jurisdiction, *e.g.* authorization, lease and licence, among others. A permit constitutes a right of usage.

Once the State has exercised its water ownership by apportioning water use to different users – through a ‘water right’ - they are entitled to enjoy the quantities specified within the conditions provided for by regulations.²⁴² It is appropriate to state that this thesis uses the term *water rights* in a broad sense. In the next chapters the term will be often used interchangeably with the terms *water permit* and water entitlement, because in the context of international investment law, investor’s exploiting water resources would most likely hold a water permit, which may constitute a property right under the protection of an investment agreement.

Water rights appear, *prima facie*, to have the same characteristics as other natural resources entitlements, such as oil, gas, minerals, etc. However, water is not present in fixed quantities in catchments and basins, as it flows through the hydrological cycle, it is subject to atmospheric and other physical conditions. Traditionally, legal regimes aim at guaranteeing the stable and peaceful enjoyment of rights granted by States by providing some levels of security and predictability for the user. Given the nature of water resources, however, experts agree that such rights must be subject to limitations.²⁴³ Professor Tarlock confirms that there are differences between major regimes of general property with those of water. While most general regimes seek for ‘secure, exclusive, individual entitlements’, water regimes do not usually follow such a standard. For reasons of public interest and interrelated common use, water rights regimes cannot always guarantee complete property rights.²⁴⁴ The Western US is possibly the best, and virtually the only example of a property based system, which - some argue - require higher levels of regulatory flexibility.²⁴⁵ Note that in *Bayview Irrigation District v Mexico* (a NAFTA case

²⁴² *Ibid.*

²⁴³ See Tarlock, "National water law: the foundations of sustainable water use", 121. Caponera, "Possible contents of and reasons for water law", 145; Hodgson, "Modern water rights. Theory and practice".

²⁴⁴ Tarlock, "National water law: the foundations of sustainable water use", 121-22.

²⁴⁵ Neuman inquire: “Water users who hold vested water rights in arid regions hold valid property rights, even though they are considerably different than ownership rights to a piece of land. How, indeed, could those rights be made more “flexible?” Yet to truly incorporate adaptive management, there needs to be some “give” at the individual level as well. One way to achieve this goal is to “regulate” for it”. See Janet Neuman, "Adaptive Management: How Water Law Needs to Change", 11436. In this vein, Ross agree that water property rights are of a fragile

initiated by US investors against Mexico, claiming the expropriation of water property rights by Mexican authorities), the tribunal addressed the issue of water ownership in its Award on jurisdiction. While the tribunal declined jurisdiction in this case, it stated in an *obiter dicta*:

The Tribunal does not accept that the Claimants own water in Mexico, in the sense of the ownership of personal property rights in the physical waters of rivers flowing in Mexican territory ... there is an evident and inescapable conceptual difficulty in positing the existence of property rights in water up-river in Mexico in a context where the entitlement of each Claimant depends upon the apportionment of a certain volume of water ...²⁴⁶

Thompson states that Professor Sax has extensively argued that water rights may deserve less protection than other property rights:²⁴⁷

These public aspects of water law undermine the claims of individual water users to inviolable and perpetual rights. Although the government might award private rights over water to the degree that private use promotes the public interest, such rights always remain subject to the "exigencies of the . . . interests of the Commonwealth." Given the immense and unique importance of water to the public, "trifling inconveniences to particular persons must sometimes give way to the necessities of a great community."²⁴⁸

Professor Sax also holds the views that the level of compensation due for the expropriation of water property rights should be limited. He refers to a number of cases within the US court systems, where tribunals have dismissed claims for compensation against regulatory measures over ownership of water and water rights.²⁴⁹ Tarlock considers that in such cases - termination of a permit for environmental protection - the extent of the deprivation suffered by the holder should be taken into account, as such cases represent incremental risks that the water-rights holders are already subject to.²⁵⁰ Indeed, several experts assert that compensation should be paid when the withdrawal of a water permit takes place. In this regard, Caponera asserts:

nature, see Shelley Ross Saxer, "The Fluid Nature of Property Rights in Water" *Pepperdine University School of Law. Legal Studies Research Paper Series* Paper Number 2010/13(2010), 3.

²⁴⁶ *Bayview Irrigation District et al. v United Mexican States*, (ICSID Case No. ARB(AF)/05/1), (Additional Facility), Award on Jurisdiction, paras. 114-115.

²⁴⁷ Joseph Sax, "The Constitution, Property Rights and the Future of Water Law" *University of Colorado Law Review* 61(1990), 260. Joseph L. Sax, "Takings and the Police Power" *Yale Law Journal* 74, no. 36 (1964).

²⁴⁸ Thompson citing Professor Sax. See Thompson, "Water Law as a Pragmatic Exercise: Professor Joseph Sax's Water Scholarship", 369.

²⁴⁹ See Sax, "The Constitution, Property Rights and the Future of Water Law", 259.

²⁵⁰ Tarlock, "National water law: the foundations of sustainable water use", 125.

Permits and concessions may also be terminated because the provisions of a water resources plan so require. In this case the water law should entitle the permit or concession holder to compensation, because termination is not due to his fault and he should be guaranteed against any possible loss of the capital invested.²⁵¹

However, some scholars would disagree, especially so in the case of water resources, but also the area of land management; note the article of Professor Holly Doremus:

Compensation requirements should be narrowly drawn to avoid over deterrence of regulatory change. Courts should require takings claimants to prove that they have been the victims of a change in the principles governing use or ownership of their property.²⁵²

The issue of termination of water rights – in the national law context – inquiries: i) whether the withdrawal of a permit constitutes an expropriation, and if so ii) whether compensation is due. Some domestic legal systems do not stipulate payment of compensation for cancellation of water permits.²⁵³ In contrast, the international investment context may require a different a different line of inquiry, under different applicable laws.

Later chapters will pay special attention to these issues. Chapter III will discuss the prerogative of states to regulate, also referred to as the police power, which pertains to the sphere of internal sovereignty of the States. In this context the police power doctrine plays a pivotal role in the ability of States to regulate strict narrow spheres of interest, such as public health, safety and the environment, and broader spheres of interest. This work revisits the origin and exercise of the police power at the national and international levels. As addressed later, its exercise in a broad sense is not an absolute as may give rise to State responsibility under International Law. Therefore, arbitral tribunals deciding disputes originating in regulatory measures linked to water resources may be called to scrutinise the legitimacy of States' exercise of their police. Such analysis is undertaken in Chapter IV,

²⁵¹ Caponera, "Possible contents of and reasons for water law", 143. See also Callies and Chipcase, addressing several American court decisions, where the court order the payment of compensation upon the determination of water property rights. David L. Callies and Calvert G. Chipchase, "Water Regulation, Land Use and the Environment" *University of Hawai'i Law Review* 30(2007), 73-74.

²⁵² Holly Doremus, "Takings and Transitions" *Journal of Land Use* 19, no. 1 (2003), 45.

²⁵³ The Alberta Water Act, for instance, provides for the cancellation of a water licence under s 55(2) when 'a significant adverse effect on the aquatic environment occurred, occurs or may occur that was not reasonably foreseeable at the time the licence was issued' Water Act RSA 2000 c. W-3 (Alberta Canada).

which proposes a framework of analysis that may assist arbitrators in undertaking this scrutiny, through a three-fold analysis.

The next section addresses important lessons that could be derived from investment disputes in the area of water services projects. Such disputes have received attention from academics and practitioners, due to the highly sensitive nature of water supply.

2.4.5 The Regulation of Water Utilities

Regulatory mechanisms for water supply involve specific institutional arrangements, such as the separation of water sector policymakers from regulatory bodies and service provision.²⁵⁴ It would therefore, be ‘misleading to discuss resources management and services delivery in the same institutional context’.²⁵⁵ This section focuses on the provision of water services for human consumption.

Water demand for human consumption amounts to ten per cent of the total demand for water resources. It has priority over other uses of water, because it is essential to life.²⁵⁶ Therefore, water for human consumption constitutes an integral part of the planning and management of water resources. However, when water is extracted and enters the network of distribution, it moves into a different sphere or regulatory activity within the industry of water supply and its infrastructure.

The distribution of water services shares the (natural) monopolistic nature of other network industries such as telecommunications, electricity and gas.²⁵⁷ Under monopoly schemes, suppliers have incentives ‘to charge excessive

²⁵⁴ Relevant experiences in Latin America see: Roberto Lentini, "Servicios de Agua Potable y Saneamiento: Lecciones de Experiencias Relevantes", (Santiago: CEPAL and Ministerio Federal de Cooperacion Economica y Desarrollo, 2011), 7.

²⁵⁵ World Water Assessment Programme, "The United Nations World Water Development Report 3: Water in a Changing World", 51.

²⁵⁶ Office of the High Commissioner of Human Rights, "*General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)*", adopted at the Twenty-ninth Session of the Committee on Economic, Social and Cultural Rights, on 20 January 2003 (Contained in Document E/C.12/2002/11), para. 6; United Nations, "Conference on Environment & Development, "Agenda 21", (Rio de Janeiro, Brazil, June 1992), 18.6; United Nations, "Report of the World Summit on Sustainable Development", para 26, (c).

²⁵⁷ Note however, that frequently electricity and telecommunications industries differ from the water industry, in that networks and grids are not shared among the providers of the service. As pointed out by Vinnary Eija M., *The Economic Regulation of publicly owned water utilities: The case of Finland, Utilities Policy*, 14, 2006, 159. Yet, this may depend on the various structures in place.

prices or ask for excessive subsidies or provide low quality service or any combination of the above'.²⁵⁸ When economic regulation operates over utilities that have the form of natural monopolies, such as the provision of water services, it aims at resembling a competitive market in long-run equilibrium. Economic regulation, thus, seeks an optimal price for the provision of services. In doing so, it allows the provider to cover his production costs, as well as allowing him to achieve a reasonable rate of return: 'the principal benchmark for "just and reasonable" rate levels has been the cost of production, including, [...], the necessary return to capital'.²⁵⁹ The methodologies to calculate the rate of return in the water sector will not be discussed in this Chapter, but it suffices to state that they are generally based on the cost and risks associated with capital investments, and these will differ according to the characteristics of each market, industry and country, the assessment and real structure of which is essentially known by the service provider.²⁶⁰

It follows that the task of regulators proves rather difficult due to information asymmetries, since regulators - in reality - are not always fully informed of the relevant variables necessary to set a price that is expected to resemble a competitive one. These variables are for instance demand, costs of production, managerial efforts and performance.²⁶¹ This setback endangers one of the aims of the regulatory task, which seeks to strike a balance between consumers' and investors' interests, in line with governmental public policy, weighting the balance in favour of the provider of the service. Moreover, the service provider may have no incentives to reverse the situation, and is likely to adopt strategic behaviour whereby he fails to inform the regulator of real costs, demand, and service capacity, among others.²⁶²

Note, however, that while this is the traditional theory of information asymmetries and natural monopoly regulation, regulatory agencies have

²⁵⁸ Michael Klein, "Economic Regulation of Water Companies", (Washington: World Bank, 1996), 3.

²⁵⁹ Alfred E. Kahn, *The Economics of Regulation. Principles and Institutions* (London: Massachusetts Institute of Technology, 1988), 63.

²⁶⁰ Public-Private Infrastructure Advisory Facility. World Bank, *Approaches to private participation in water services: A toolkit* (Washington, DC: International Bank for Reconstruction and Development/World Bank, 2006). 115-16. See also David Hall and Emanuele Lobina, "Water as a Public Service", (Public Services International, 2006), 35-36.

²⁶¹ Paul L. Joskow, "Regulation of Natural Monopolies," in *05-008 WP* (Boston: Center for Energy and Environmental Policy Research, 2005), 93-94. See also Hall and Lobina, "Water as a Public Service", 43.

²⁶² Joskow, "Regulation of Natural Monopolies", 93-94.

developed sophisticated mechanisms of accountancy and control put in place to minimise the effects of investors' incentives to maximise profit.²⁶³

Such a challenge is possibly greater in developing countries where regulatory mechanisms were adopted after intense economic reforms in search of greater efficiency in the provision of public services, thereby transferring the control and in some cases the ownership of public services to private investors. 'Privatizing' states were advised to develop secure regulatory frameworks and set institutions to administer such frameworks. There was, however, a high level of inexperience among government officials. In this vein, Boehm illustrates:

This new institutional environment is characterized by rules which are often still unclear, new public organisations with possible conflicting interest to other public agencies, and a lack of experience concerning the application of these new rules and the handling of the new situation. Even the World Bank and the Inter-American Development Bank [...] note that public service sector reforms occurred sometimes in an environment of "incomplete reforms and immature regulatory frameworks." Such settings clearly open the risk for opportunistic behaviour: regulated firms may capture the reform for their own narrow interests ('regulatory capture'), or politicians may abuse regulatory powers for their own purposes ('regulatory opportunism', or capture by the political sphere).²⁶⁴

The notion of full cost recovery in the context of investment in the water sector has been contested, mainly due to the high sensitivities that access to water generates. Some authors consider that the competitive effects achieved by way of regulation should be moderated for reasons of 'social integration and the achievement of non-economic values, such as social solidarity and equity'.²⁶⁵ The concept of full cost recovery is intrinsic in the fourth principle of the Dublin Statement: 'water is an economic good'. This principle has adopted the social component in water; hence water was subsequently recognised as a 'social and economic good'.²⁶⁶ The 'economic good' component was highly

²⁶³ *Ibid.*, 95.

²⁶⁴ Frédéric Boehm, "Regulatory Capture Revisited – Lessons from Economics of Corruption" *Working Paper* (2007), 3.

²⁶⁵ Christopher McCrudden, *Regulation and Deregulation. Policy and Practice in the Utilities and Financial Services Industries* (Oxford: Clarendon Press, 1999). 276. See also Anthony Ogus, *Regulation. Legal Form and Economic Theory* (Oxford: Clarendon Press, 1994), 46-54; Sergio Navajas, "El Servicio de Agua Potable y Desagües Cloacales en Buenos Aires", in *La Regulación de la Competencia y de los Servicios Públicos. Teoría y Experiencia Argentina Reciente* (Buenos Aires: Fundación de Investigaciones Económicas Latinoamericanas, 1999).

²⁶⁶ "Agenda 21" Chapter 18, added in its text the social component to the 4th Dublin's principle: "Integrated water resources management is based on the perception of water as an integral part

criticized, especially by professionals who argued against the 'privatization' of water supply. They claimed that, given its strategic importance, water should be the responsibility of the public domain.²⁶⁷ The Technical Advisory Committee (TAC) of the GWP states:

The recovery of full cost should be the goal for all water uses unless there are compelling reasons for not doing so. While, in principle, the full cost needs to be estimated and made known for purposes of rational allocation and management decisions, it need not necessarily be charged to the users.²⁶⁸

Whether private participation in the provision of the water supply has been a failure or a success appears to be a question with many answers.²⁶⁹ Admittedly there have been a number of important problems especially in Latin America and some African countries. There has also been a switch in the type of contracts between government and private investors, as concession contracts are no longer the preferred arrangement. Favour has shifted toward less risk and capital-involved private participation, and perhaps even more importantly, less network expansion obligations.²⁷⁰

In the aftermath of the termination of the water concession in Cochabamba and the economic crisis in Argentina, increasing social concerns regarding

of the ecosystem, a natural resource and a social and economic good, whose quantity and quality determine the nature of its utilization". United Nations, "Conference on Environment & Development, "Agenda 21", (Rio de Janeiro, Brazil, June 1992), para. 18.8.

²⁶⁷ "The financial focus needs to be switched from providing incentives and subsidies for multinational operators, to identifying the financial needs of local public sector water providers, and ways in which they can be supported". Hall and Lobina, "Water as a Public Service", 63. See also Stefan M.M. Kuks, "The privatisation debate on water services in the Netherlands: public performance of the water sector and the implications of market forces" *Water Policy* 8(2006); Maude Barlow and Tony Clarke, *Blue Gold The Battle Against Corporate Theft of the World's Water* (London: Earthscan Publications Ltd., 2003).

²⁶⁸ See Technical Advisory Committee (TAC), "Integrated Water Resources Management", 20.

²⁶⁹ A number of experts such as Marin in his report on private participation, assert that private participation in the provision of water has not necessarily dropped since early 1990's: Marin, "Public-Private Partnerships for Urban Water Utilities A Review of Experiences in Developing Countries", 26-29. See also Owen, *Pinsent Masons Water Yearbook 2007 - 2008*. Another more critical approach appears to focus on specific examples such as the water concession in Cochabamba and La Paz in Bolivia; Dar-Es-Salaam in Tanzania; Buenos Aires, Tucuman in Argentina, Montevideo in Uruguay, among others, for some of them see: Spronk and Crespo, "Water, National Sovereignty and Social Resistance: Bilateral Investment Treaties and the Struggles against Multinational Water Companies in Cochabamba and El Alto, Bolivia"; Hall and Lobina, "Water as a Public Service"; Schouten addresses the possible failure of private participation in the water sector, in the context of the institutional capacity, of the receiving country, in his specific example of Cochabamba, see Marco Schouten, "Strategy and Performance of Water Supply and Sanitation Providers. Effects of Two Decades of Neo-Liberalism", (UNESCO-IHE, Erasmus Universiteit Rotterdam, 2009), 37-40; Solanes and Jouravlev, "Revisiting Privatization, Foreign Investment, International Arbitration and Water".

²⁷⁰ Marin, "Public-Private Partnerships for Urban Water Utilities A Review of Experiences in Developing Countries", 36.

access to water (as a human right) and affordability, promoted further debate on the way forward to realise access to water and achieve the MDGs.²⁷¹

The regulation of water supply appears to relate to a two-faceted discussion. On one hand, some issues are linked to efficiency, due diligence, and corporate behaviour. On the other hand, other issues are linked to social aspects such as human rights, equity, subsidies and affordability, which are not only dependent on the operator's performance, but rather on the government in its relationship with the operators. Both aspects are of relevance in the sphere of international investment arbitration because the extent to which arbitrators may consider and integrate these issues in their assessment of the circumstances of the case is still subject to debate.²⁷²

2.5 Water in the Context of International Investment Arbitration

Water resources have been and will be essential to the development of any investment project. The role that water plays in every project varies. However, even when there is no competition for water resource due to stress or scarcity, the use of water by industry *e.g.* mining, energy generation, oil extraction, all generate sensitivities among communities. Perhaps the inherent nature of water perceived as a common good (or common-pool resource), which does not allow for full exclusion of other users, limits a full exercise of the bundle of property rights, as discussed in Section 1.6.3 (fn41). This sense of commonality appears to be reflected in the feeling of entitlement that each person has over water resources, as an individual and as part of a community.

This Section revisits a few investment disputes linked to the provision of water services. By examining these cases in retrospect, it intends to determine if any

²⁷¹ Marrella makes reference to several states proposing constitutional amendments, on the human right to water, such as Bolivia, Argentina, Ecuador, etc. Marrella, "On the changing structure of international investment law: The human right to water and ICSID arbitration", 339; William Schreiber, "Realizing the Right to Water in International Investment Law: An Interdisciplinary Approach to BIT Obligations" *Natural Resources Journal* 48, no. 1 (2008). See also Juan Pablo Bohoslavsky's presentation on 'Tratados de protección de las inversiones e implicaciones para la formulación de políticas públicas' in the Workshop: 'Tratados internacionales de protección a la inversión y regulación de servicios públicos', ECLAC, (Buenos Aires: November 2010).

²⁷² It is worth noting a number of investor-state disputes where arbitrators, attending the public interest, admitted *amicus curiae* briefs. *Biwater Gauff (Tanzania) Limited v United Republic of Tanzania (ICSID Case No. ARB/05/22)*, Award 24 July 2008; *Compania de Aguas del Aconquija SA and Vivendi Universal SA v Argentine Republic (ICSID Case No. ARB/97/3)*, Award 20 August 2007. See also the Workshop: 'Tratados internacionales de protección a la inversión y regulación de servicios públicos', ECLAC, (Buenos Aires: November 2010). (available in Spanish)

lessons can be learned from past disputes linked to water services in the context of investment arbitration.

2.5.1 Water Services and International Investment Arbitration

2.5.1.1 Aguas del Tunari S.A. v Bolivia

The so-called Cochabamba's 'water war' is of special interest as it depicts problems of governance, the strong feelings towards water accessibility and the effects of these elements on international investment law.

In this case, there was a disagreement between the central government, through its executive branch under the president Gonzalo Sanches de Lozada, and the municipal government of Cochabamba under Manfred Reyes Villa. Although the President and Mayor agreed on the need for a project to deliver water to the city of Cochabamba, they held different views on how to achieve this objective. The alternative project, advocated by the central Government, was called Corani which would source water from an electricity generation project, part of the President's privatisation programme. The Misicuni project, on the other hand, was long awaited by the citizens of Cochabamba and strongly advocated by the local government. Finally, the Misicuni project was put forward and the central government proceeded with the bidding process which concluded with the negotiation of a 40-year concession contract.²⁷³ However, the disproportionate increase in tariffs at a very early stage of the project and the continuous problems of lack of water caused social unrest, resulting in the violent events of February 2000. Water consumers, irrigators and several local organisations took the streets of Cochabamba, condemning the privatisation process until the final expulsion of the company and the cancellation of the concession contract.

Bechtel and Abengoa, the main shareholders of Aguas del Tunari S.A., initiated an investment claim against the government of Bolivia before ICSID,

²⁷³ For a background of the privatization process of water services in the city of Cochabamba, see William Finnegan, 'Letter from Bolivia. Leasing the Rain: The Race to Control Water Turns Violent', 46-47; The Democracy Center, 'Water Revolt: The World Bank Letters', June, 2002. Available at: <http://democracyctr.org/bolivia/investigations/bolivia-investigations-the-water-revolt/bechtel-vs-bolivia-role-of-the-world-bank/water-revolt-the-world-bank-letters/>, last visited April 5, 2014.

claiming USD 50 million in compensation.²⁷⁴ The proceedings did not reach an award on the merits due to an active lobby of NGOs advocating for the right to water of citizens of Cochabamba and the government of Bolivia avoided the payment of a detrimental compensation. The claimants settled the case for two Bolivianos (about USD 0.30) as a token payment.²⁷⁵

This case illustrates how internal struggles in the governance systems of host States, as well as people's strong feelings of entitlement may result in loss for all the parties involved. On the one hand the people from Cochabamba have not yet access to water from Misicuni.²⁷⁶ On the other hand, the investor was forced to leave the country and settled the investment arbitration case, in part due the pressures of NGOs and civil society.

2.5.1.2 *Biwater Gauff (Tanzania) Limited v United Republic of Tanzania*²⁷⁷

In this case, City Water Services Limited²⁷⁸ signed a number of contracts for the provision of water services in the city of Dar es Salaam. The difficulties in meeting its contractual obligations, such as billing and tariffs collection, became apparent shortly after the contracts started operating. The Tanzanian government denied requests to modify the contractual provisions and adopted several measures to recover the control of the company, including: i) the cancellation of the contract, ii) the occupation of City Water's facilities, iii) the takeover of the management of the company, and iv) the deportation of senior

²⁷⁴ The Democracy Center On-Line, *Bechtel VS. Bolivia: The People Win!!* (2006), <http://www.democracyctr.org/newsletter/vol69.htm>, last visited March 12, 2010.

²⁷⁵ Susan Spronk and Carlos Crespo, "Water, Sovereignty and Social: Investment Treaties and the Struggles against Multinational Water Companies in Cochabamba and El Alto, Bolivia", *Law, Social Justice & Global Development (LGD)* 1(2008), 8.

²⁷⁶ Over ten years later the Misicuni Project has not yet been concluded. In this regard, OOSKA News reports that Bolivia still needs US\$ 32.5 million to complete the project. The contract with the CHM Consortium was cancelled and was later took over by Misicuni Company, resulting in a 120 days suspension of the works. See OOSKA News, 'Bolivia Needs Another \$32.5 Million to Complete Misicuni Project', March 21, 2014. Available at: http://www.ooskanews.com/story/2014/03/bolivia-needs-another-325-million-complete-misicuni-project_159851, last visited April 7, 2014.

²⁷⁷ *Biwater Gauff (Tanzania) Limited v. United Republic of Tanzania (ICSID Case No. ARB/05/22), Award, July 24, 2008.*

²⁷⁸ Biwater (UK) and Gauff (Germany) incorporated as BGT for the tender and later incorporated under Tanzanian laws as City Water Services Limited to provide the service in partnership with Dar es Salaam Water and Sewerage Authority (DAWASA).

managers. These actions triggered an arbitration claim.²⁷⁹ The arbitral tribunal considered that the investor had performed poor management of the utility from the bidding process and failed to meet its contractual obligations. However, it found that Tanzania had breached its BIT obligations regarding expropriation with compensation,²⁸⁰ fair and equitable treatment,²⁸¹ and the provision of full protection and security.²⁸² Yet it did not grant any compensation to the investor, since the economic value of the utility was nil at the moment of the claim.²⁸³

This is one of the first cases in which a tribunal in an investment dispute allowed *amicus curiae* submissions. The submissions asked the tribunal to increase its sensitivity towards human rights, access to water and sustainable development.²⁸⁴ However, none of the issues raised in the *amicus curiae* submissions were specifically addressed by the tribunal in the substantive part of the Award.

2.5.1.3 *Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v Argentine Republic*²⁸⁵

Vivendi Universal from France²⁸⁶ and Aguas de Aconquija from Argentina signed a concession contract for the provisions of water services to the Province of Tucuman. The newly elected Government of Tucuman expressed its discontent with the tariff increase and exhorted the company to reduce tariffs.

The situation was exacerbated by two events of turbidity in the drinking water that led the Ministry of Health to warn citizens of Tucuman of health issues,

²⁷⁹ Andrea K. Bjorklund, "ICSID Tribunal Finds Tanzania to Have Violated Bilateral Investment Treaty but Declines to Award Any Damages", *The American Society of International Law (ASIL)* 12, no. 17 (2008).

²⁸⁰ *Biwater Gauff v Tanzania*, paras 451-520.

²⁸¹ *Ibid.*, paras 586-675. The tribunal did not uphold all Biwater's claims with regard to the Fair and Equitable Treatment standard.

²⁸² *Ibid.*, paras 724-731.

²⁸³ The tribunal concluded that by the time of the wrongful act by Tanzania the value of the assets was already zero and that termination of the contract was inevitable in any event *Biwater Gauff v Tanzania*, para. 799.

²⁸⁴ Five organisations presented amicus submissions: Lawyers' Environmental Action Team; the Legal and Human Rights Centre; the Tanzania Gender Networking Programme; the Centre for International Environmental Law; and the International Institute for Sustainable Development.

²⁸⁵ *Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v Argentine Republic* (ICSID Case No. ARB/97/3), Award 20 August, 2007.

²⁸⁶ Formerly the French Compagnie Générale des Eaux.

such as cholera, typhoid and hepatitis. Moreover, the Government of Tucuman encouraged consumers not to pay their water bills.

After a period of unsuccessful negotiations, the contract was terminated and the investor was required to continue providing the services for nearly one year. Vivendi initiated arbitration proceedings before ICSID in 2003.²⁸⁷ The arbitral award concluded that Argentina had breached the fair and equitable treatment and the expropriation with compensation standards, granting USD 105 million compensation in favour of the claimants.

In response to Argentina's allegations of public interest in this case, the tribunal contended that it is the effect of the measure and not the intent of the government that is the determining factor for the violation of the expropriation with compensation standard.²⁸⁸ However, the role of the Government of Tucuman in the evolution of the conflict played an important role in the decision of the tribunal.²⁸⁹

These cases illustrate the strong social and political components embedded in water services, and the influential power of stakeholders. While there is increasing pressure on arbitrators to consider a State's human rights and environmental obligations, the result of these investment disputes could have an effect on foreign investment flows, as well as the way in which States see the investor-State dispute settlement mechanism. It is possible that these disputes led to the reduction of private sector involvement in the water services sector overall (as pointed out in the previous sections). However, new types of disputes may arise from the use and competition for water as a resource. As water scarcity is exacerbated by climate change and population growth, the investment arbitration community will need novel approaches for balancing the interests between the entitlements investors hold to use water

²⁸⁷ This was the second request for arbitration presented by Vivendi Universal, as the first Award was partially annulled in 2002.

²⁸⁸ *Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v. Argentine Republic* (ICSID Case No. ARB/97/3), Award 20 August, 2007, para.7.5.20. See also *Compañía del Desarrollo de Santa Elena S.A. v. Republic of Costa Rica* (ICSID Case No. ARB/96/1), Award 17 February, 2000 and Rectification of Award of June 8, 2000 (*Santa Elena v. Costa Rica*); and *Técnicas Medioambientales Tecmed v. United Mexican States*, (ICSID Case No. ARB(AF)/00/2), Award 29 May 2003, para. 116.

²⁸⁹ The tribunal quotes the working paper of a World Bank expert, who served as Argentina's witness during the arbitration proceedings: 'Instead of coming out and explaining the reasons for the changes, the Tucumán Government added its voice to the protests. In truth, a veritable chorus was formed, where legislators, journalists, politicians and leaders from civil society competed to be perceived as the most virulent'. See *Vivendi v Argentina*, Award, para. 7420.

and the need for reallocation, adaptive management and climate change mitigation.

2.5.2 Water Resources and International Investment Law

The cases below illustrate potential conflicts arising from the regulation of water resources in the context of international investment law (as distinct from disputes relating to the provision of water services. These three cases depict the levels or spheres of interaction between investors, other users and governments, namely water as a good, competition over water resources, and environmental and health concerns linked to water resources.

2.5.2.1 Sun Belt Inc. v Her Majesty the Queen (Canada)

In October 1999, the American corporation Sun Belt filed a Notice of Arbitration against Canada, under the North American Free Trade Agreement (NAFTA), to reverse a national ban imposed on the export of fresh water by marine tankers from the Great Lakes. It also requested the restoration of the fresh water export licensing arrangements for bulk shipment by marine tanker. Initial temporary lost business opportunity costs were claimed in the order of USD 468 million, with the further claim that these costs could rise to USD 1.5 billion.²⁹⁰ The dispute was settled between the parties, and the conditions of the settlement and possible compensation remain unknown.²⁹¹

2.5.2.2 Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany²⁹²

In 2007, the city of Hamburg agreed on a provisional licence in favour of Vattenfall to meet future energy demand through the development of nuclear energy.²⁹³ In 2008, when the final approval for the project was due, the city of

²⁹⁰ *Sun Belt Inc. v. Her Majesty the Queen*, "Notice of Claim and Demand for Arbitration", 12 October 1999, 4.

²⁹¹ For an analysis of this case in the context of the relationship between Canadian domestic law and the North American Free Trade Agreement (NAFTA), see Cumming and Froehlich, "NAFTA Chapter XI and Canada's Environmental Sovereignty: Investment Flows, Article 1110 and Alberta's Water Act".

²⁹² *Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany*, (ICSID Case No. ARB/09/6).

²⁹³ The negotiation was undertaken despite the opposition of environmental and political groups who argued that the project was larger than what was needed to meet the demand for energy in

Hamburg issued a new permit, including additional restrictions on the use of water within the project in order to avoid impact on the volume of water, temperature and oxygen content.²⁹⁴ Such modifications led Vattenfall to initiate an investment dispute against Germany for € 1.4 billion in compensation. In 2010 the parties reached an agreement to settle the dispute, and Germany issued new water permits, in line with the original ones, since the project was not possible without access to water resources.²⁹⁵

2.5.2.3 Bayview Irrigation District et al. v United Mexican States²⁹⁶

This case is probably the most important in terms of reference to the special nature of water resources. The dispute arose out of a claim initiated by irrigators in the State of Texas in the US against Mexico for alleged diminution of their property rights in water. The permits had been granted by the US after the allocation of water resources as provided for in the Treaty for the 'Utilization of the Waters of the Colorado and Tijuana Rivers and of the Rio Grande/Rio Bravo', signed on 3 February 1944 between Mexico and the US. As in the aforementioned investment disputes, the arbitral tribunal did not decide on the merits of the case. The tribunal, however, articulated an important *obiter dictum* with regard to the ownership of water resources:

One owns the water in a bottle of mineral water, as one owns a can of paint. If another person takes it without permission, that is theft of one's property. But the holder of a right granted by the State of Texas to take a certain amount of water from the Rio Bravo / Rio Grande does not 'own', does not 'possess property rights in', a particular volume of water as it descends through Mexican streams and rivers towards the Rio Bravo / Rio Grande and finds its way into the right-holders irrigation pipes.²⁹⁷

Hamburg. See Nathalie Bernasconi, "Background Paper on Vattenfall V. Germany Arbitration," (Winnipeg: International Institute for Sustainable Development (IISD), 2009), 1

²⁹⁴ See Vattenfall Notice of Arbitration: Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG & Co. KG. (Sweden and Germany) and the Federal Republic of Germany, March 30, 2009, paras 37-40. The claimant stated that 'Under German law, without a water use permit the Vattenfall Group would not be entitled to the immission control permit for the construction of the plant'.

²⁹⁵ *Vattenfall v Germany. Award March, 11, 2011*, p17 (Article 2: Conditions).

²⁹⁶ *Bayview Irrigation District et al. v United Mexican States, ICSID (Additional Facility) Case No. ARB (AF)/05/1, Award 19 June, 2007.*

²⁹⁷ *Ibid.*, para. 116. See further Chapter IV, Section 4.4.1.

The tribunal declined jurisdiction on the basis that the claimants did not own investments in Mexico, as their farms and irrigation rights were situated in the State of Texas. Therefore, protection under the NAFTA Chapter 11 could not be afforded. One may still wonder, however, what would have been the position of the tribunal should it have found it had jurisdiction to decide the case, and its view with regard to prospective water property rights of Texas investors (as reflected in the *dicta*).

Potential water conflicts can be observed in various sectors of investment: such as mining projects in conflict with local populations, projects competing for water for irrigation, or projects potentially causing excessive water pollution.²⁹⁸ New types of investment could also cause disputes: such as licences granting foreign investors large extensions of land with water for agricultural production, so called 'land grabs'.²⁹⁹

2.6 Conclusion and Way Forward

The unique nature of water has been argued on the basis of its physical characteristics and economic, social and environmental perspectives. If all these attributes, however, were not sufficient to assert that water is unique, further scarcity and lack of substitutes amounting to increasing unpredictability, may at least justify the argument that water should be treated in a special manner.

This chapter has set out current and potential challenges for water resources management and the provision of drinking water, where adaptation to scarcity and climate change, along with prioritization of uses, may require regulatory flexibility.

Developing countries are advised to achieve certain levels of development prior to undertaking measures towards the protection of the environment, and prior to adopting more sophisticated water management mechanisms. It follows that

²⁹⁸ See for instance *Pac Rim Cayman LLC v. Republic of El Salvador (ICSID Case No. ARB/09/12)*.

²⁹⁹ Howard Mann addressing the: '[E]arly movers are seeking to lock in access to water for agriculture with investments in states perceived to have a surplus of water today'. Countries where water resources are traditionally scarce, started to invest in agricultural lands, with leased periods of 50 to 90 years, and extension up to 1 million hectares. Carin Smaller and Howard Mann, "A Thirst for Distant Lands: Foreign Investment in Agricultural Land and Water", *International Institute for Sustainable Development. Foreign Investment for Sustainable Development Program* (2009), 5-6.

developing countries, as well as developed ones, in face of new realities, will be confronted with the need to adopt resilient steps towards protection of water resources, or to achieve better management mechanisms. This reality appears to endanger the secure and predictable regulatory environment promised to investors and property rights holders. Cases such as *Methanex Corp. v. United States of America*,³⁰⁰ *Chemtura Corporation v Canada*,³⁰¹, *Pac Rim Cayman LLC v. Republic of El Salvador*,³⁰² illustrate how changing regulatory environments in the face of threats to health and the environment can affect investor rights. In at least two of these cases, *Methanex* and *Pac Rim*, those threats were linked to water resources.

A holistic approach to water resources by way of IWRM or other policy tools implies a process of constant evolution and adaptation of policy and law, with the need to address competing demands for water because of growing scarcity and increasing pollution. For regulators, this means that water management and water services regulation (potentially) might have expropriatory implications for investors.

As will be discussed in the next chapter, the prerogative of States to regulate is not contested under international law. Sovereignty and the police power of states play a pivotal role in next Chapter's discussion. Chapter III discusses the commitments entered into by States, which within the realm of international investment law are of a particular nature. Under such commitments, States agree to protect investors' assets and property rights, limiting the exercise of their sovereignty. It is therefore important to revisit the notions of sovereignty and the police power of states because these concepts are often invoked by host States, NGOs and groups of interest in the context of the legitimacy of the dispute settlement mechanism of investor-state arbitration.

This work explores the extent to which arbitrators could incorporate, in the analysis, of an investment dispute, the holistic approach to water resources management. Such a framework of analysis would need to take into account the specific relationships between water, human development, environmental sustainability and investment protection. All these aspects have been barely

³⁰⁰ *Methanex Corp. v. United States of America*, Ad hoc—UNCITRAL (NAFTA).

³⁰¹ *Chemtura Corporation v Canada*, Ad hoc—UNCITRAL (NAFTA).

³⁰² *Pac Rim Cayman LLC v. Republic of El Salvador*, ICSID Case No. ARB/09/12.

incorporated within the first generation of international investment agreements.

CHAPTER 3

THE POLICE POWER DOCTRINE IN THE CONTEXT OF INDIRECT EXPROPRIATION

3.1 Introduction

This thesis intends to identify the extent to which investment tribunals could incorporate the special nature of water resources in the assessment of regulatory measures over water that have been claimed to be expropriatory by foreign investors. On one hand, the management of water resources could negatively affect the overall investment project rendering it useless, thus *de facto* expropriated. On the other hand, it does not seem reasonable to expect that a highly variable and unpredictable resource, such as water, should remain subject to static rules, hindering adaption and resilience in times of scarcity and climate variability.

This work also intends to contribute in finding a balance between the interest of investors and the regulatory prerogatives of States. In so doing, it proposes a framework of analysis, which may assist arbitral tribunals to distinguish between regulatory measures – as expression of the police power – and acts of indirect expropriation. This approach is not new in the field of investment arbitration, but could be applied to the specific case of water resources management, incorporating the unique features of water resources – addressed in Chapter II – in each criterion of the framework of analysis. Chapter IV will set out the criteria that are being proposed as a framework of analysis to draw the line between legitimate regulation and indirect expropriation.

This Chapter revisits the doctrine of the police power of States in various contexts, namely the sovereignty of states, domestic legal traditions and international investment law. In the context of international investment law, the police power has been perceived as the affirmation of the sovereign power of States, which could endanger the stability and security of the investment regime. When the security of an investment is in jeopardy, the concepts of sovereignty and police power become synonymous with political and regulatory risks, as opposed to the underlying principles of regulatory activity used to protect the common welfare.

It is noteworthy that the analysis of the issues presented above does not lie solely in the domain of legal studies. Such analysis may be linked to a broader problem pertaining to the dynamics of international law and international relations, and thus beyond the scope of this thesis. There are, however, elements to this analysis under the domain of law; one of which is the issue of the scope of the police power of States and its legitimacy. This aspect of the police power is the lens through which this thesis will look.

The conception of the police power gives rise to various questions originating specifically in the area of investment arbitration, where the applicable law is primarily the investment treaty (IIA) and the rules of procedure stipulated by the parties to the treaty. Under this legal framework, arbitral tribunals are called to assess whether the action of the host State, in this case a water related regulatory measure, conforms to the standard of investment protection provided for in the IIA. It follows that the water laws of the host State will become the subject matter of the investment dispute under international investment law.

In addition, to the analysis of the police power, this Chapter also refers briefly to the development of investment agreements and the protection of foreign investment.

3.2 The Sovereignty of States: A Foundation for the Police Power

Professor James Crawford in his inaugural lecture entitled *Continuity and Discontinuity in International Dispute Settlement* remind us of the constant interaction between present and past, to which international law is not an exception: “The “brave new world” of international dispute settlement turns out to have a great deal of the old world in to it too.”¹

Inspired by Professor Crawford’s lecture, this section suggests that old notions such as sovereignty have a strong influence in today’s treaty negotiations and dispute settlement. In the past forty years sovereignty appeared to be on the wane, after the negotiations that gave birth to the United Nations (UN) General

¹ James Crawford, "Continuity and Discontinuity in International Dispute Settlement: An Inaugural Lecture" *Journal of International Dispute Settlement* 1, no. 1 (2010): 4. In this context, he expressed that the present of public international law is seeded and nourished by old practices of public international law, referring specifically to the dispute settlement regime. He contends that international law develops “through processes of accumulation and accretion” and, in comparison, domestic law develops by displacement of present over past uses. *Ibid.*, 23.

Assembly's resolutions on the Permanent Sovereignty over Natural Resources (PSNR)² and the New International Economic Order (NIEO),³ generated resentment between capital importing and capital exporting countries. The new global dynamic, however, appeared to give place to an unprecedented number of agreements on economic integration and cooperation.⁴ Comparatively, such as in the area of environmental governance, States appear more reluctant to give up sovereignty. This confirms the perceptions toward their inherent power over their own natural resources and their attitudes towards the environment.⁵ This is not to say that all negotiations in the area of trade and investment have succeeded; in fact, many have failed due to a lack of consensus.⁶

International lawyers may perceive sovereignty as a hurdle to cooperation and integration.⁷ States may adopt two types of approaches toward obligations under international law. Under the first approach, sovereignty may be invoked by the negotiating parties as an *ex-ante* preventive strategy to avoid State responsibility. In other words, States would prefer to refrain from entering into international agreements that are perceived as a hindrance to the exercise of

² RA1803 (XVII) of 14 December 1962. See Section 3.4.1.3.

³ RA 3201 (S-VI) of 1 May 1974. See Section 3.4.1.3

⁴ The Association of Southeast Asian Nations ASEAN (1967), Acuerdo de Cartagena (1969), Caribbean Community CARICOM (1973), MERCOSUR 1991, The Marrakech 'WTO' Agreement (1994), North American Free Trade Agreement NAFTA (1994), Common Market for Eastern and Southern Africa COMESA (1994), Agreement on the European Economic Area (1994), and the more than 3000 International Investment Agreements recorded by the end of 2012. See United Nations Conference on Trade and Development (UNCTAD), "Towards a New Generation of International Investment Policies: UNCTAD'S Fresh Approach to Multilateral Investment Policy - Making," (Geneva: United Nations, 2013), 4.

⁵ There exist roughly 250 Multilateral Environmental Agreements, according to the World Trade Organisation, see http://www.wto.org/english/tratop_e/envir_e/envir_neg_mea_e.htm, last visited July 20 2013. For instance, Climate change lost three important players at its Durban, South Africa meeting when Canada, Japan and Russia pulled out of the Kyoto protocol in December 2011. For this Canada has been largely condemned, see <http://www.guardian.co.uk/environment/2011/dec/13/canada-condemned-kyoto-climate-treaty>, last visited January 2012. The 1997 Convention on the Law of Non-Navigational Uses of International Water Courses still awaits the ratification of five States to enter into force (by June 2013). The International Convention for the Regulation of Whaling has been subject to several reservations and notifications of withdrawal since it was signed in 1946. Norway, Iceland, Japan and Canada have presented substantial oppositions to the provision of this Convention. See http://iwcoffice.org/_documents/commission/convention_status.pdf, last visited February 2012.

⁶ OECD Multilateral Agreement on Investment (MAI), ceased negotiations in December 2008, see <http://www.oecd.org/daf/mai/intro.htm>, last visited June 20 2013; International Trade Organisation, negotiated in the Havana Conference in 1947, was never ratified by its members, notably the United States, see http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact4_e.htm, last visited June 20 2013. The WTO Doha Round started negotiations in 2001, has proved a difficult challenge.

⁷ José E. Álvarez, "The Return of the State" *Minnesota Journal of International Law* 20, no. 2 (2011), 225.

their sovereign powers. By the second approach, sovereignty may be invoked as means of justification of an *ex-post* measure that breaches the State's obligation under international agreements. Note, however, that the reasons why sovereign States chose one or another strategy cannot be explained from a purely legal perspective. On the contrary, such situations may be better explained under the fields of political science and international relations. Notwithstanding, the thesis will consider the two scenarios from a legal perspective.

The first scenario – *ex ante* prevention of State responsibility – could be illustrated in the sphere of water resources management and trans-boundary shared water resources. As argued in Chapter II, water has a special nature and contrary to other parts of the environment generally, it has not been subject to substantive global governance.⁸ During negotiations of the Convention on the Law of the Non-Navigational Uses of International Watercourses (UN Water Courses Convention) of 1997, not yet in force,⁹ there was disagreement between the negotiating parties as to the right of upstream countries, to 'reasonably and equitably' use international waters within their territories. This played out - in contrast - to the right invoked by downstream countries, not to be 'harmed' by upstream riparian States.¹⁰ Sovereignty played a pivotal role in the negotiators' positions, *e.g.* China, Turkey and the

⁸ Notwithstanding, water is part of environment, as was stated by the arbitration tribunal in the *Iron Rhine ("Ijzeren Rijn") Railway case, Belgium v Netherlands*, Award of the Permanent Court of Arbitration ad hoc Arbitral Tribunal, Reports of International Arbitral Awards, United Nations, Volume XXVII pp.35-125, para. 58. Chapter 2 argues that the combined characteristics of water as a natural resources are distinct from other natural resources.

⁹ For a discussion on the ratification and enter into force of the Convention see Chapter II, *supra* note 171. For a further analysis on adoption process and its obstacles see, Salman M. A. Salman, "The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?" *Water international*. 32, no. 1 (2007); Alistair Rieu-Clarke and Flavia Rocha Loures, "Still not in Force: Should States Support the 1997 UN Watercourses Convention?" *Review of European Community & International Environmental Law* 18, no. 2 (2009).

¹⁰ Both 'reasonable and equitable utilization' and 'no-significant harm' are principles of customary international law, along with the 'obligation to cooperate'; such principles may also be contained in international agreements signed by countries sharing international river basins at the regional and bilateral levels. These principles were adopted as substantial obligations under the UN Watercourses Convention. In the context of international obligations linked to the protection and consequent management of water resources (which are related to the quality and quantity of water resources that flow cross border into downstream countries), it was suggested in Chapter II that for the purpose of the analysis of host States' obligations (both under international agreements and customary international law), the obligations of the host country are carried out or operated under domestic law. In fact, the management of water resources is undertaken at the national level and hence domestic regulation may have an impact on downstream countries. Substantive obligations toward neighbouring countries could constitute a source of conflict with other obligations acquired by host States in the area of international economic law.

Czech Republic, expressly pointed out their concerns with regard to the hindrance of their sovereign rights as an effect of adopting several provision of the UN Watercourses Convention:

Territorial sovereignty is a basic principle of international law. A watercourse State enjoys indisputable territorial sovereignty over those parts of international watercourses that flow through its territory. It is incomprehensible and regrettable that the draft Convention does not affirm this principle.¹¹

In the context of the negotiations of the UN Watercourses Convention, State sovereignty, as a recognised principle of international law, is potentially an obstacle to the protection of fresh water resources and their sustainable use. The abovementioned example illustrates the sensitivity of the management of water resources at the national level, which may hinder overarching sustainability goals at the international level.¹²

The second scenario – *ex post* States' responsibility – could be observed in the ambit of economic integration, trade and investment. Currently 3196 IIAS (between Bilateral Investment Treaties (BITs) and Free Trade Agreements (FTAs) have been signed up to 2012¹³ and virtually all these agreements contain clauses under which States agree to refrain from adopting measures that could negatively affect investors' property rights. Capital exporting countries proposed tight standards of investment protection in order to guarantee an adequate environment for their national investors. Professor Alvarez points out, for instance, that the 1984 US BIT Model is 'highly investor-protective'.¹⁴ Furthermore, the BIT between Cuba and Cambodia has adopted a similar investor-protective model, and China has adopted BITs

¹¹ Statement of the representative of China, Official Records of the United Nations Conference on the Convention on the law of the non-navigational uses of international watercourses (United Nations, General Assembly, A/51/PV.99: New York), May 12, 1997, 6. See also the Statements of Turkey, Ibid, 5 and Rwanda, Ibid, 12.

¹² In the specific case of water resources governance, the discussion is relevant, for it is generally argued that water management should be undertaken from the lowest level i.e. a bottom up approach. This implies that the regulation of water resources should be designed and adopted at the local or national level, in principle, giving States an ample margin of discretion in the manner they allocate and regulate water resources. Such recognition is not contested in principle, as one of the main attributes of State sovereignty is the *prima facie* exclusive jurisdiction over a territory and the population therein (See Brownlie: Principles of International Law 290).

¹³ United Nations Conference on Trade and Development (UNCTAD), "World Investment Report 2013. Global Value Chains: Investment and Trade for Development", (Geneva: UNCTAD, 2013), 101.

¹⁴ José E. Álvarez, "A BIT on Custom" *New York University journal of international law and politics New York University Journal of International Law and Politics* 42, no. 1 (2009), 13.

similar to the US Model.¹⁵ In addition, multilateral agreements such as the Energy Charter Treaty (ECT) contain expansive provisions on the definition of protected investment and also include the Hull formula of full, prompt and adequate compensation. Notably, however, the international investment regime seems to be experiencing some discontent in both developed and developing countries. Recently Venezuela, Ecuador, Argentina and Bolivia have criticised the regime after being subject to a number of investors' claims that have resulted in awards in the millions being rendered against these States.¹⁶ Yet, it is not only developing countries that have had second thoughts regarding their investment agreements. The US and Canada, for instance, have also been subject to a number of claims for breaches of their international obligations under the NAFTA Chapter 11.¹⁷ Further, recently Germany and Spain have been subject to claims under the ECT.¹⁸ Such a situation appears to have put in perspective the need for revisiting the regulatory prerogatives of States.¹⁹

This work focuses on the dispute settlement stage of investment agreements. It suggests that a State's failure to comply with both economic integration and environmental governance agreements is often shielded behind the State's sovereignty. The meaning of sovereignty, however, appears to have shifted from past nationalistic and political conceptions of sovereignty, such as the

¹⁵ See *ibid.*, 13, fn 115. He compares the expansive definition of protected investment contained in the Cuba-Cambodia BIT of 2001. See Agreement between the Government of the Kingdom of Cambodia and the Government of the Republic of Cuba Concerning the Promotion and Protection of Investments, Cambodia-Cuba, Article 1 I (1), May 28, 2001, available at http://www.unctad.org/sections/dite/iaa/docs/bits/cuba_cambodia.pdf, last visited August 2 2013.

¹⁶ By 2011 Argentina's Award liabilities reached closed to 430 Million US Dollars (plus interest), see IA Reporter, 'Argentina by the numbers: Where Things Stand with Investment Treaty Claims arising out of the Argentine Financial Crisis', February 1, 2011. Available at: www.iareporter.com/articles/20110201_9, last visited July 9, 2013. In October 2012 Occidental Petroleum Corporation was awarded 1.77 Billion US Dollars (without interest), in the case followed against the government of Ecuador, see Tai-Heng Cheng and Lucas Bento, 'ICSID's Largest Award in History: An Overview of Occidental Petroleum Corporation v the Republic of Ecuador', Investment Arbitration Blog, December 19, 2012. Available at: <http://kluwerarbitrationblog.com/blog/2012/12/19/icsids-largest-award-in-history-an-overview-of-occidental-petroleum-corporation-v-the-republic-of-ecuador/>, last visited April 4 2013.

¹⁷ See for instance: *Chemtura Corporation v Canada, Ad hoc—UNCITRAL (NAFTA), Award signed 2 August 2010, Methanex Corp. v. United States of America Ad hoc—UNCITRAL (NAFTA), 3 August 2005, Glamis Gold Ltd. v United States of America, under UNICTRAL Rules, Sun Belt v Her Majesty the Queen (Government of Canada), (NAFTA Chapter 11, under UNCITRAL Rules), among others.*

¹⁸ *Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany, (ICSID Case No. ARB/09/6); Charanne (the Netherlands) and Construction Investments (Luxembourg) v Spain, under SCC rules, 2013 (not public).*

¹⁹ See Álvarez, "The Return of the State"; Álvarez, "A BIT on Custom".

PSNR, to a somewhat nuanced perspective of regulatory prerogatives that aim to protect the public interest.

It is appropriate to address some of the meanings of the principle of sovereignty, and how these meanings affect the perception of the community toward sovereignty. Professor Henkin describes the 'S word' as an 'illegitimate offspring', subject to several meanings, some of them even 'destructive of human values'.²⁰ There are difficulties in approaching the meaning of sovereignty under a single discipline of knowledge, for sovereignty belongs to the realm of law as much as it belongs to the realms of politics and international relations. As expressed above the realms of politics and international relations are beyond the scope of this work; however their perspectives may provide some further understanding of the principle.²¹

Professor Koskenniemi, for example, approaches the origins of sovereignty from legal as well as political perspectives through the ideas of Kelsen and Schmidt. Kelsen explained sovereignty as a creation of the law, which has granted the State a number of rights and freedoms to be exercised within the limits of the law. Conversely, Schmidt explained sovereignty as a factual truth, independent of any other external factor. Professor Koskenniemi asserts that the objectivity or subjectivity of each approach to sovereignty contradicts one another, and while it is arguable that both cannot coexist, they cannot fully nullify each other, and thus sovereignty oscillates between both law and fact:²²

In general, law and politics have similarities and differences. They are similar in that they are broadly concerned with the problem of power. The definition of politics should probably be partly included in the definition of law because it certainly seems that all law is politics but not all politics is law.²³

²⁰ L. Henkin, "That 'S' Word: Sovereignty, and Globalization, and Human Rights, Et Cetera" *Fordham Law Review* 68, no. 1 (1999), 1. For discussions on the positive and negative meaning of sovereignty, see Martti Koskenniemi, "What Use for Sovereignty Today?" *Asian Journal of International Law* I (2011).

²¹ Currently, there appears to be new attempts to approach the principle sovereignty – as well as other several notions– from an interdisciplinary perspective. See for example, Winston P. Nagan and Craig Hammer, "The Changing Character of Sovereignty in International Law and International Relations" *Columbia Journal of Transnational Law* 43, no. 1 (2004): 2. Antony Anghie, *Imperialism, Sovereignty, and the Making of International Law* (Cambridge, UK; New York, NY: Cambridge University Press, 2005). Martti Koskenniemi, *The gentle civilizer of nations : the rise and fall of international law, 1870-1960* (Cambridge, UK; New York: Cambridge University Press, 2002).

²² See Martti Koskenniemi, *From apology to utopia* (New York: Cambridge University Press, 2005).

²³ Nagan and Hammer, "The Changing Character of Sovereignty in International Law and International Relations", 146, fn.21.

The relevance of the abovementioned approach becomes apparent as the meanings of sovereignty differ, serving the needs and values of States.²⁴ These needs and values have a spatial, temporal and cultural component. In sum, they are all contextual in outlook. Professor Nagan identifies thirteen meanings of sovereignty,²⁵ ranging from monarchic exercise of power to basic governance competencies, all of them having a historical or contemporary use. A similar approach is adopted by Alison Von Rosenvinge, who proposes a framework of three 'ideal types' in which the notion of sovereignty is subsumed: i) 'the prince' where the supreme power of the State requires no justification, ii) 'the protector' as the power justifying the ability to protect the State's citizens from internal and external threats, and iii) 'the citizen' as holder of rights and obligations granted by a larger – perhaps international – community. These three types are suggested as a workable language that has been used by the International Court of Justice (ICJ) in the analysis of several cases.²⁶ The aim is not to answer what sovereignty is, but how in fact it works.²⁷

²⁴ The Treaty of Westphalia of 1648 brought to an end the 30 Years War in Europe. Sovereignty was understood in the context of religious equality among States, and as independence from the church and the freedom to govern within their respective territories. 'By specifying which sovereign ruled which lands, the Westphalian model linked sovereignty and territory, and thus attempted to fix domestic sovereignty among European belligerents. But its primary concern was the independence of the sovereign's State from the pope and other rival authorities'. See Douglas Howland and Luise White, "The state of sovereignty territories, laws, populations," Indiana University Press, available at: <http://public.eblib.com/EBLPublic/PublicView.do?ptiID=437616>, last visited 10 July 2011. With regard to the influential effect of the Westphalia Treaty in current international law, Gross asserts that Westphalia constitutes a milestone in the separation of international law from religion. See Leo Gross, "The Peace of Westphalia, 1648-1948" *American Journal of International Law* 42, no. 1 (1948), 26.

²⁵ Sovereignty as a personalized monarch (real or ritualized); Sovereignty as absolute, unlimited control or power; Sovereignty as political legitimacy; Sovereignty as political authority; Sovereignty as self-determined, national independence; Sovereignty as governance and constitutional order; Sovereignty as a criterion of jurisprudential validation of all law (*Grundnorm*, rule of recognition, sovereign); Sovereignty as the juridical personality of sovereign equality; Sovereignty as international recognition; Sovereignty as a formal unit of a legal system; Sovereignty as legal immunities; Sovereignty as jurisdictional competence to make and/or apply law; and Sovereignty as basic governance competencies (constitutive process).

²⁶ See *Legality of the Use by a State of Nuclear Weapons in Armed Conflict*, Advisory Opinion, 1996, I.C.J. 68 (July 8); *Fisheries Jurisdiction Case, (Spain v. Canada)*, 1998 9 (Dec. 4); *Construction of Wall*, Advisory Opinion, 2004 I.C.J. 9 (July 9); *The Gabcikovo-Nagymaros Project, (Hungary v Slovakia)*, 1997 I.C.J. 32 (Sept. 25); *Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia & Herzegovina v Serbia & Montenegro)*, 2007 I.C.J. 23 (Feb. 26).

²⁷ D. Alison Von Rosenvigne, "Creating a working vocabulary of sovereignty language at the international court of justice" *Comparative Research in Law & Political Economy, Network. CLPE Research Paper 05/2010* 6, no. 2 (2010), 1.

The classification proposed by Von Rosenvinge is useful in the analysis of the different ways in which States, investors and arbitrators may perceive sovereignty. Host States appear to play the role of the 'protector' when adopting measures deemed to pursue the general welfare *e.g.* water resources management intended to achieve long-term sustainability. The exercise of sovereignty under this point of view may involve limiting the liberties of individuals in order to protect the interest of a much larger portion of society. Such prerogatives can be found in the doctrines of the police power and eminent domain.

The same measure, however, from the investor's perspective may be considered as a unilateral act of the State, exercising its supreme power as 'the prince'. This approach inherently involves the Hobbesian model of protection and obedience, and thus the power of the prince can hardly be contested. Looking at the function of sovereignty from this perspective, the past and present concerns over political and regulatory risk become apparent. Investors and their home States assessed these risks before embarking on the negotiation of investment treaties and contracts containing standards of treatment and stabilization clauses, aiming to avoid the negative effects of the exercise of this type of sovereignty.²⁸

It is arguable that in the sphere of investor-State arbitration the ultimate meaning of sovereignty may be provided through the interpretation of an arbitral tribunal. This approach looks at state sovereignty as the 'citizen', under which it functions as a member of a larger international community with rights and obligations. The rationale behind this approach could be found in the decision of the Permanent Court of International Justice (PCIJ) in the *SS Wimbledon* of 1923:

²⁸ In this regard, political and regulatory risk involving foreign investment, have been long discussed, as a major source of investment instability. In order to curb these risks, investors and their home-States negotiated stabilisation clauses in concession contracts, as well as standards of protection in IIAs. Prosper Weil addressed the case of 'stabilization clauses' in concession contracts for the exploitation of natural resources. Weil identifies two types of clauses: i) stabilisation clauses *per se*, limiting the legislative risk, whereby States may modify the contract by a legislative action; ii) Clauses *D'intangibilité*, which seek to limit the exercise of the public authority of the State. See Prosper Weil, "Les Clauses de Stabilisation ou D'intangibilité Insérées dans les Accords de Développement Economiques", in *Mélanges offerts à Charles Rousseau: La Communauté Internationale*, ed. Mélanges Rousseau (Charles) (Paris: Editions A. Pedone, 1974). See also A. Z. El Chiati, *Protection of investment in the context of petroleum agreements*, vol. 204, Recueil des Cours (The Hague: The Hague Academy of International Law, 1987). As regards the shift from political risk to regulatory risk see, Wälde and Dow, "Treaties and Regulatory Risk in Infrastructure Investment. The Effectiveness of International Law Disciplines versus Sanctions by Global Markets in Reducing the Political and Regulatory Risk for Private Infrastructure Investment".

The Court declines to see, in the conclusion of any treaty by which a State undertakes to perform or refrain from performing a particular act, an abandonment of its sovereignty ... the right of entering into international engagements is an attribute of State sovereignty.²⁹

When States give up their sovereign prerogatives because they are sovereign enough to do so, their prerogatives are reduced and substituted with obligations of not-to-do.³⁰ However, those prior prerogatives of action may be later deemed necessary to address unforeseeable circumstances. The Argentinean financial crisis illustrates this situation, where the country was found in breach of its international obligations to protect foreign direct investment due to measures adopted to tackle the crisis. Some of the arbitral tribunals constituted to decide the investment disputes – between investors and Argentina – understood that the State – as a citizen – was prevented from exercising regulatory prerogatives under the provisions of the BITs. However, a number of ICSID annulment committees disagreed with some of these arbitral tribunal decisions. The annulment committees observed that the obligation to protect foreign investment could not always ‘trump’ the sovereign obligation to protect the population in the face of a fundamental crisis.

Similarly, arbitral tribunals have read the exercise of the regulatory prerogatives of States as being in conflict with other international obligations, but have found that such exercise did not breach those commitments. This inconsistency among tribunals may have raised a sense of unpredictability within the international investment community as to when a State’s exercise of its sovereignty breaches an obligation and when the exercise thereof escapes the consequences of such a breach. The question arises as to whether there is the emergence of a new understanding of sovereignty, or as Koskenniemi inquires, what is the use of sovereignty today.³¹

Despite the undeniably high degree of global governance and transnational harmonization and cooperation, communities still share ties made of values and common concerns and preferences. Such values are reflected in the

²⁹ *S.S. Wimbledon (U.K. v. Germany)*, 1923 P.C.I.J. (ser. A) No. 1 (Aug. 17), para. 35. On this case see also Ian Brownlie, *Principles of public international law*, 7th ed. (Oxford: Oxford University Press, 2008), 290; Koskenniemi, "What Use for Sovereignty Today?"; Álvarez, "The Return of the State"; Jan Klabbers, "Clinching the Concept of Sovereignty: Wimbledon Redux" *Austrian Review of International and European Law* 3, no. 3 (1998).

³⁰ See the case *Nationality Decrees Issued in Tunis and Morocco (French Zone) on November 8th, 1921, Advisory Opinion*, [1922] P.C.I.J. 3, 23-4.

³¹ See Koskenniemi, "What Use for Sovereignty Today?".

internal sovereignty of States – under a democratic process – thus, affirming a better understanding of this principle:

A vocabulary for articulating alternative preferences and for carrying out (strategic) manoeuvres in order to limit the powers of global executive classes and expert groups. This would mean, inevitably, highlighting the importance of the vocabulary of political sovereignty as the expression of local values and preferences as well as traditions of self-rule, autonomy, and continuous political contestation.³²

In this vein, a new meaning of sovereignty may be seeking to meet newly embraced values. What we today understand as legitimate may be the right to participate fully and freely in the government's decisions of what is good for us, and what we understand by human and economic development.

Professor Reisman raises two relevant issues when considering the increasing influence of international investment law on the administrative domestic frameworks of host States which appear problematic. On the first point, he refers to the growing tendency of States to shift from the *laissez-faire* model to a regulatory one, driven by environmental, social and economic concerns. On the second point, he holds that concerns from civil society groups and the increasing empowerment they have received, permits their increased influence on governments' decision-making, which may not always be in line with the governments' preferred policy choices.³³

3.3 The Police Power

This section revisits the regulatory prerogative (police power) of States in the context of indirect expropriation (also referred to as regulatory takings and/or

³² *Ibid.*, 68.

³³ William Michael Reisman, "The Evolving International Standard and Sovereignty", (paper presented at the The Future of International Law, Washington DC, 2007), 464. On this point, there are nowadays various examples of dichotomies between preferred governmental policies and communities/civil society's preferences, *i.e.* the Bolivian government has launched a project for the construction of a highway in the northern part of Bolivia, which will connect Villa Tunari-Cochabamba –in the central Antes part- to Trinidad-Beni –the amazon region- which is much less connected from the rest of the country. The project is opposed by native communities, which allege the project goes through Isiboro Secure National park and the communities' territories: http://www.losttiempos.com/diario/actualidad/economia/20110816/tipnis-marcha-indigena-avanza-26-kilometros-y-llega-al-rio_137996_282218.html. Likewise, Peru has launched a large irrigation project and the construction of a dam in the Province of Espinar. Communities allege that the project will divert their water resources, with negative consequences for the agriculture and other uses. Discussions between government and communities have come into conflict and have brought unrest to the region. See: http://www.bnamericas.com/news/waterandwaste/Angostura-Siguas_group_wins_Majes-Siguas_II_concession1; <http://climate-connections.org/2010/09/18/repress-ion-over-water-in-peru/>. Last visited 12 March, 2013.

de facto expropriation). The purpose of this section and the following ones are to serve three objectives: i) to trace the very essence of the police power, ii) to examine how it is assessed by arbitral awards, and iii) to enable the development of a framework of analysis in order to assess the legitimate exercise of police power in the context of water resources-related investment disputes.

The adoption of the police power as a conceptual framework in this Chapter is based on the following reasons: i) it constitutes the corollary – within the internal sovereignty of States – for the exercise of regulatory prerogatives and the protection of public welfare (*e.g.* health, safety and the environment), ii) it cannot be derogated from, and its exercise is pivotal for the internal functioning of States, and iii) it cannot be subject to the payment of compensation because a State should not buy out its inherent right to regulate, provided that such regulation does not constitute a disguised act of expropriation.³⁴ In this light, this following chapter depicts how the police power can inform the analysis of indirect expropriation in the context of water-related investment disputes.

The origin of the term ‘police’ can be traced back to ancient Greece. The term polis means cities and government. The social contract theories that flourished during the 1600s and 1700s underlined the idea of authority, protection and order. The Hobbesian, as well as the Lockean social models, while having opposed nature, both deal with the need to defer power to an all-powerful sovereign/government. This need in both cases could be identified as the anxiety for self-preservation in the idea of Hobbes, and the need for stability and protection of private property in the case of Locke. Ultimately, in both societies there is a willingness to give up the natural freedom for governance and direction in the form of rights and obligations.

The sovereign of Hobbes (Leviathan) does not recognise control over himself because he is the law. However, the government under the Lockean model, which is underpinned by the consent of the majority, introduces a sovereign that is beholden to itself through a separation of powers that gives different

³⁴ The prerogative of States to expropriate private property is recognised under their eminent domain, such prerogative is recognised under most Constitutions, and when there is no Constitution under other legislative acts. The same provisions that allow expropriation by the states, stipulate strict conditions for the protection of private property, amongst which is the payment of compensation.

branches of government the power to watch over each other.³⁵ Interestingly, Locke's federal arrangement grants the executive branch of government with a *doctrine of prerogative* that can be used to regulate in the absence of the law or even against the law, namely 'the power of doing public good without a rule', 'also referred to as the preservation of human life'³⁶. Such a prerogative has been compared with the modern notion of 'eminent domain'.³⁷ It follows that abuse of power by the executive branch is not only possible but also likely; and therefore needs additional safeguards for instances where the executive's prerogative is exceeded. However, this thesis will not attempt a full analysis of sovereignty through the perspective of political philosophy. This brief reference to the social contract, through Hobbes and Locke, attempts to draw a line of similarity across two opposite views of the nature of humankind and the origin of governments. It suggests that there is a common acceptance of an overarching power to organise the functioning of societies, which provides a basic justification for the police power of States.

The next Section addresses the development of the police power in the US. This thesis suggests that various parallels could be drawn between current conflicts arising from regulatory activity in the context of international investment law, and two spheres of government of the US, namely State and Federation.

3.3.1 The Police Power in the United States

The term 'police power' was coined by the US Supreme Court,³⁸ and its notion is the result of the then evolving relationship between the States' and the Union's powers and the idea of residual sovereignty.³⁹ Such a relationship

³⁵ See Alex Tuckness, "Locke's Political Philosophy", ed. Edward N. Zalta, *The Stanford Encyclopedia of Philosophy* (<http://plato.stanford.edu/archives/win2012/entries/locke-political/> Winter 2012).

³⁶ 'Locke's understanding of separation of powers is complicated by the doctrine of prerogative. Prerogative is the right of the executive to act without explicit authorization for a law, or even contrary to the law, in order to better fulfil the laws that seek the preservation of human life.' (*Two Treatises* 1.159 – 1.167), *ibid.*, 6.

³⁷ Steven Smith, 'Locke, The American Regime and the Current State of Political Philosophy', Lectures on Political Philosophy, (Open Yale Courses). Available at: <http://oyc.yale.edu/political-science/plsc-114/lecture-17>, last visited July 30, 2013.

³⁸ *Brown v. Maryland - 25 US 419 (1827), March 12 1827.*

³⁹ As Denny asserts the term was not articulated until later the notion was developed: 'The term is nowhere found in our Constitution, and it first appears in our jurisprudence slightly less than one hundred years ago. It found no place in Bouvier's Law Dictionary until 1883, and the

could be compared with the one between international and national law. Two notions are relevant from those addressed by the framers of the US Constitution:

The first notion is the *division of sovereignty*, where a federation receives the power to regulate over those matters of general interest for the union, and the individual states receive the residual sovereignty to regulate all other matters related to the interest of its citizens. This constitutes the origin of the police power and eminent domain.⁴⁰

The second notion, inherited from Blackwell, is the *doctrine of vested rights*,⁴¹ which is recognised in the US Constitution, but was later overridden by the general principle of public interest.⁴² In this regard, Mendelson asserts that ‘no society, certainly no democracy, could thrive on the pristine simplicity of such a foundation. Even Marshall came by degrees to recognize that...’.⁴³

The US Supreme Court not only applied and interpreted the law, it also became a policy maker, as its decisions appear to reflect the changing needs of a given context and time. In this regard, while the constitutional jurisprudence is rich in its dealings with the police power and the delineation of its notions, this section addresses a few cases relevant to understand the origin of the police power in the North American tradition.

In *Dartmouth College v Woodward*,⁴⁴ where public education was at stake, the Court acknowledged the notion of the police power without explicitly referring to the term. By upholding its previous judgment in *Fletcher v Peck*⁴⁵ (on the protection of vested rights), the Court stated:

United States Digest did not contain it until 1879. See Collins Denny, "The Growth and Development of the Police Power of the State" *Michigan Law Review* 20, no. 2 (1921), 173.

⁴⁰ *Ibid.*

⁴¹ Blackstone on the absolute rights of individuals: ‘For the principal aim of society is to protect individuals in the enjoyment of those absolute rights, which were vested in them by the immutable laws of nature, but which could not be preserved in peace without that mutual assistance and intercourse which is gained by the institution of friendly and social communities’. See William Blackstone, *Commentaries on the Laws of England*, vol. Available at: http://oll.libertyfund.org/index.php?option=com_content&task=view&id=1415&Itemid=262, Vol. 1 - Books I & II. Chapter I (1893). In the context of the US Jurisprudence, see Justice Marshall’s Opinion in *Fletcher v. Peck*, 10 U.S. (6 Cranch) 87, (U.S. 1810), 136.

⁴² On this guarantee, it is useful to refer to the Fourteen Amendment of the US Constitution, an extended commentary can be found at: <http://www.gpo.gov/fdsys/pkg/GPO-CONAN-1992/pdf/GPO-CONAN-1992-10-15.pdf>, last visited April 20, 2013.

⁴³ Wallace Mendelson, "New Light on Fletcher v. Peck and Gibbons v. Ogden" *The Yale Law Journal* 58, no. 4 (1949), 572.

⁴⁴ *Dartmouth College v Woodward*, 4 Wheat. 518, 629 (U.S. 1819).

⁴⁵ *Fletcher v Peck* shows a strong conviction in favour of the principle of vested rights that the US Supreme Court under the presidency of Chief Justice Marshall held. In Marshall’s opinion: ‘Conveyances have been made, those conveyances have vested legal State, and, if those States

The framers of the Constitution did not intend to restrain the States in the regulation of their civil institutions adopted for internal government, and that the instrument they have given us is not to be so construed is admitted.⁴⁶

In *Gibbons v Ogden*,⁴⁷ Chief Justice Marshall appears to delineate the notion of the police power: 'the acknowledged power of the State to regulate its police, its domestic trade and to govern its own citizens may enable it to legislate on this subject to a considerable extent'.⁴⁸ However, in *Charles River Bridge v Warren Bridge*,⁴⁹ Chief Justice Taney presented a new interpretation toward the inherent power of States:

No one will question that the interests of the great body of the people of the State would, in this instance, be affected by the surrender of this great line of travel to a single corporation, with the right to exact toll and exclude competition for seventy years. While the rights of private property are sacredly guarded, we must not forget that the community also have rights, and that the happiness and wellbeing of every citizen depends on their faithful preservation... We cannot deal thus with the rights reserved to the States, and, by legal intendments and mere technical reasoning, take away from them any portion of that power over their own internal police and improvement, which is so necessary to their wellbeing and prosperity.⁵⁰

The debate between the protection of vested rights and the power of states to regulate *per se*, briefly discussed above, was eventually settled between the States and the Union, and such prerogative was widely recognised in favour of States as their residual sovereignty. The scope of the police power of the States may well be matter of another discussion.

Ernest Freund identified three spheres of activity under the scope of the police power, and classified them according to their level of development: i) a

may be seized by the sovereign authority, still that they originally vested is a fact, and cannot cease to be a fact. When, then, a law is in its nature a contract, when absolute rights have vested under that contract, a repeal of the law cannot divest those rights; and the act of annulling them, if legitimate, is rendered so by a power applicable to the case of every individual in the community. It may well be doubted whether the nature of society and of government does not prescribe some limits to the legislative power; and, if any be prescribed, where are they to be found if the property of an individual, fairly and honestly acquired, may be seized without compensation?' *Fletcher v. Peck*, 10 U.S. (6 Cranch) 87, (U.S. 1810), 136.

⁴⁶ *Dartmouth College v Woodward*, 4 Wheat. 518, 629 (U.S. 1819). See also Mendelson, "New Light on Fletcher v. Peck and Gibbons v. Ogden", 567-68.

⁴⁷ *Gibbons v Ogden* 22 U.S. (9 Wheat.) 1(U.S.1824).

⁴⁸ In this case the Court historically brought to an end the monopoly over the Hudson River, under the commerce clause, turning down an injunction of Court Chancery of New York, banning Gibbons to navigate in the said River. See *Gibbons v Ogden* 22 U.S. (9 Wheat.) 1(U.S.1824).

⁴⁹ *Charles River Bridge v Warren Bridge*, 36 U.S. 420 (1837).

⁵⁰ *Charles River Bridge v Warren Bridge*, 36 U.S. 420 (1837), at 36. Some commentators argue that Taney's views were aimed at protecting the regulatory faculties of the States. See Mendelson, "New Light on Fletcher v. Peck and Gibbons v. Ogden", 573, footnote 24.

conceded sphere affecting safety, order and morals, under the type of restrictive legislation which appears to broaden as activities increase, ii) a *debatable* sphere, linked to the generation and distribution of wealth, for which legislation was still incipient, and iii) an *exempt* sphere, developing under the principle of individual liberty, linked to moral, intellectual and political movements:⁵¹

The exercise of the police power for the protection of safety, order, and morals, constitutes the police in the primary or narrower sense of the term. It is a power so vital to the community that it is often conceded to local authorities of limited powers. It is the police power in this narrower sense of the term, which the Supreme Court of the United States concedes on principle to the States, even where its exercise affects interstate and foreign commerce.⁵²

Interestingly, more than hundred years have passed since Freund identified this sphere of interest, and perhaps the only clear addition to it has come in the form of environmental protection. It is of course true that the elements of the conceded sphere are broad and virtually every regulatory measure may fall under such categories. The police power could then be narrowly linked to regulations of negative obligation or obligations of omission:

Under the police power, rights of property are impaired not because they become useful or necessary to the public, or because some public advantage can be gained by disregarding them, but because their free exercise is believed to be detrimental to public interests; it may be said that the State takes property by eminent domain because it is useful to the public, and under the police power because it is harmful.⁵³

Over the past century, regulations put in place under the scope of the police power have exponentially grown in number as well as in complexity. Joseph Sax applies a broader approach than that of Freund, asserting that, while there is no definition of police power, the notion generally relates to the 'prohibitions which are valid and which may be invoked without payment of compensation'. He confirms that the use of the notion of the police power is commonly employed to protect safety, health and morals, but notes nonetheless that such scope was not intended to be exclusive to those narrow uses.⁵⁴

⁵¹ Ernst Freund, "The police power public policy and constitutional rights", (Chicago: Callaghan & Company, 1904), 11.

⁵² *Ibid.*, 10.

⁵³ *Ibid.*, 546-47.

⁵⁴ See Sax, "Takings and the Police Power", 36.

In 1922 the US Supreme Court in Pennsylvania adopted an important decision in the case of *Pennsylvania Coal Co. v Mahon*.⁵⁵ The Mahons had prevented the Pennsylvania Coal Company from mining under their property and removing the supports, seeking to prevent to subsidence of their property. The Supreme Court of the State of Pennsylvania had decided – on appeal – that the mining company had protected contract and property rights, under the protection of the Constitution of the United States. The Court, however, asserted that the Kohler Act⁵⁶ was a legitimate exercise of the police powers of the State.⁵⁷ In the words of Fischel:

Holmes was willing to cut the government a lot of slack. The diminution in the value of the asset affected by the new regulation had to be sizable before the Court would be interested. This off-hand qualification is the source of the “diminution in value test”, one of several unweighted criteria by an attorney can supposedly determine when a regulation becomes a taking. Far more significant was that Holmes disallowed the argument that *all* property is held under the “implied limitation” of police power regulations.⁵⁸

The ‘diminution of value’ test advanced by Holmes in *Pennsylvania Coal* was further developed in 1978 in the case *Penn Central Transportation v New York*.⁵⁹

The Penn Central Transportation Company was the owner of the historic Grand Central Terminal, which had been designated as a landmark of the city of New York by the Landmark Preservation Commission. As a result, the Company could not transform or destroy the exterior of the building without the approval of the Commission. When Penn Central sought to sell its rights to build structures above its terminal, the Commission stopped the sale, stating that it would constitute a breach of the regulations. Penn Central sued the commission, alleging taking of its property without compensation; but it lost the case. On appeal, the New York Supreme Court of Appeals ruled in favour of the city. The US Supreme Court confirmed the judgement, issuing – in an opinion written by Justice Brennan – a test to determine when a regulation would go too far. This three-fold test would be later adopted by a second

⁵⁵ *Pennsylvania Coal Co. V. Mahon*, 260 U.S. 393 (1922) 260 U.S. 393, Decision of December 11, 1922.

⁵⁶ The Kohler Act forbade the mining of Anthracite or hard coal to prevent subsidence of structures destined to human habitation.

⁵⁷ William A. Fischel, *Regulatory Takings: Law, Economics and Politics* (Cambridge: Harvard University Press, 1995), 15.

⁵⁸ *Ibid.*, 16.

⁵⁹ *Penn Central Transportation Co v New York City*, 366 N.E. 2d 1271 (NY 1977), affirmed 438 U.S. 104 (1978).

generation of IIAs to determine the existence of an indirect expropriation:⁶⁰ i) the character of the governmental measure, ii) interference with investment-backed expectations, and iii) extent of the diminution of value.⁶¹

This brief reference to the North American tradition supports the conclusion that many similarities could be drawn between the development of the police power in the US jurisprudence and the treatment of the police power in the context of indirect expropriation in International Investment Law. Perhaps the most important value of the United States' tradition of police power is the historical one, because it provides a proper understanding of the underlying issues that preceded its current shape. The struggles between the Constitutional provisions of the United States, such as the commerce clause, and the residual power of States, could be compared with current struggles between the provisions of IIAs and the host States' prerogatives to regulate. In sum the overview is an important step in the revisit of the police power of states.

3.3.2 The Civil Law Traditions of Latin American Countries

The police power is common to most judicial systems; notwithstanding it is referred to with different names (*e.g.* state prerogative to regulate, or regulatory powers). Authors familiar with the civil law tradition clearly identify the police power within the regulatory prerogatives of the executive branch. Some civil law traditions find additional sources for the exercise of the police power in the faculties of the administration to clarify the limits of individual rights as guaranteed by the normative system. These faculties of the administration may be the result of a somewhat discretionary competence entrenched in the same normative system, thus imposing on society some negative obligations.⁶² The German approach to the police power considers *Ius Politaе*, which argues for the general welfare and the public interest.

⁶⁰ The inspiration drawn from the test adopted in *Penn Central v New York* will be addressed in Chapter 4. See also Section 3.4.2.3

⁶¹ The test of *Penn Central* has been criticised by Fischel as vague, because its elements of analysis – in his view – do not give enough information to predict a decision. Moreover, according to Fischel the Court did not state the weight that each criterion should be given by a court. See Fischel, *Regulatory Takings: Law, Economics and Politics*, 50-51.

⁶² Polícia administrativa é a atividade administrativa, exercitada sob previsão legal, com fundamento numa supremacia geral da Administração, e que tem por objeto ou reconhecer os confins dos direitos, através de um processo, meramente interpretativo, quando é derivada de uma competência vinculada, ou delinear os contornos dos direitos, assegurados no sistema

In contrast, Agustin Gordillo – an Argentinean scholar – asserts that to date there is no independent notion of the police power. He claims that such a notion has been distributed across all regulatory activities of the State where it is acting within the sphere of its own prerogatives as provided in the law. At the core of the police power seems to be the limitation of individual liberties. In this regard, Gordillo argues that this is an old doctrine that should be derogated altogether in order to give a place to the protection of the freedoms of individuals as a doctrinal rule, and the limitation of their enjoyment shall then become the exception to such rule.

3.3.3 The Police Power as ‘Limitation’ of Individual Freedoms: What is the Limit to the ‘Limitation’?

It has been proposed above that the police power constitutes a corollary to the internal sovereignty of States. Yet, as suggested by Gordillo at the end of the previous Section, such a prerogative ought to be scrutinized so that constitutional guarantees of freedom remain protected to a reasonable extent. While the police power pursues the protection of the public interest, by means – generally – of limiting individual freedoms, of both natural and legal persons, it is not clear whether the police power constitutes a rule or an exception. In other words the question arises as to whether the purpose of regulatory prerogatives is the limitation of individual freedoms or to guarantee and secure the enjoyment of such individual freedom.

The answer to this question may become relevant regarding the level of scrutiny to which governmental measures could be subject. General administrative law would examine the following: i) whether the authority has the mandate to adopt the regulatory measure under scrutiny, ii) whether the purpose of such regulation aims to protect the public interest, and iii) whether the goal of the regulation has been achieved in a proportional manner. Further, and for the purpose of the impact of the exercise of the police power in international law, two additional elements appear to be relevant: i) whether

normativo, quando resultante de uma competência discricionária, a fim de adequá-los aos demais valores albergados no mesmo sistema, impondo aos administrados uma obrigação de não fazer. See Clóvis Beznos, Poder de polícia (São Paulo-Brazil: Revista dos Tribunais 1979), 76. (Police power is the administrative activity, exercised under the law and supported by the supremacy of the General Administration. It aims to delimit the rights of individuals, through a process merely interpretative of a broader mandate that outlines the contours of the rights of individuals, in order to adapt them to other values embedded in the same legal system, through an obligation of not-to-do.) (Author’s translation).

there could be a disguised aim behind the adoption of the regulatory measure, which may imply an undue use of the police power, and ii) whether the host State has provided the foreign investor with certain guarantees in regard to the stability of the regulatory environment, and whether the investor has a legitimate expectation in such a regulatory environment.

This work suggests that the three first elements mentioned above constitute *prima facie* criteria that may shed some light on the legitimacy of the police power. The second group of elements – arguably more relevant in the sphere of international investment law – may provide additional information to the analysis, in order to determine whether the police power has gone too far in the adoption of a regulation.

Consider, for instance, early conflicts in the US between the union and the states which dealt with cases where disguised actions of protectionism sought to enhance the economic interest of the state, as well as the development of its incipient industry, under the veil of public interest regulation. The assessment of the legitimacy and transparency of the exercise of the police power in regard safety or health measures, for instance, addressed the following questions:

Does a danger exist if so is it of sufficient magnitude? does it concern the public? does the proposed measure tend to remove it? is the restraint or requirement in proportion to the danger? is it possible to secure the object sought without impairing essential rights and principles? does the choice of a particular measure show that some other interest than safety or health was the actual motive of legislation?⁶³

Parallels could be drawn with development of the European Union's (EU) single market economic integration.⁶⁴ Likewise, the World Trade Organization (WTO) has provided for general exceptions (Article XX) to the obligation under the General Agreement on Tariffs and Trade (GATT 1994). The assessment of governmental measures, however, is undertaken under strict rules in order to

⁶³ Freund, "The police power public policy and constitutional rights", 133.

⁶⁴ The European Communities, customs union and economic integration is briefly referred to in this work, only as an example of States' measures adopted disguisedly to protect national interests, and internal industry competitiveness. See for instance *Commission of the European Communities v Federal Republic of Germany*, Case 18/87, Judgement 27 September 1988. (Charging of fees for inspections carried out during intra-Community transport of live animals), Judgment of the Court of 20 February 1979; *Rewe-Zentral AG v Bundesmonopolverwaltung für Branntwein (Cassis de Dijon)*, Case 120/78, Judgement 20 February 1979 (Measures having an effect equivalent to quantitative restrictions- Reference for a preliminary ruling: Hessisches Finanzgericht – Germany).

determine whether the measure adopted by the State does not actually constitute a disguised restriction to trade.⁶⁵

Similarly, when the exercise of police powers negatively affects investors' property rights, the question arises as to what is the degree of deprivation of the investment.⁶⁶ Some arbitral tribunals have considered whether the regulatory measure adopted was proportionate to the aims sought by the governmental measure.⁶⁷ In other cases, arbitral tribunals have adopted a broad definition of expropriation that also covers regulatory activity undertaken through the exercise of the police power, even when the effects of such an expropriation are non-discriminatory. Section 3.6 addresses the police power in the contexts of international law and international investment law. Prior to it, it is pertinent to briefly address the history of protection of foreign investment (Section 3.4), with special focus on the issue of expropriation (Section 3.5). This work intends to contribute to the current debate on indirect expropriation through the lens of the exercise of the police power, but most importantly it aims to assist arbitrators in scrutinising the exercise of the police power, as applied to issue water resources management. In this vein, Chapter IV proposes a framework of analysis via a set of criteria to determine when the police power constitutes a regulation, and when such exercise is actually an indirect expropriation.

3.3.4 Conclusions

The notion of the police power constitutes a pivotal element of the notion of sovereignty. Sovereignty in turn, is the quintessential element of States' political independence and territorial integrity. It follows that the police power endows States with legitimate authority that enables a presumption of legality of regulatory measures adopted to achieve social welfare. According to this view, the regulatory prerogative of States to regulate natural resources,

⁶⁵ Article XX (General Exceptions) of the General Agreement on Tariffs and Trade 1994 (GATT 1994): 'Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures ...'

⁶⁶ See Section 3.6. and Chapter IV Section 4.7.1 for a full account of the Level of Deprivation of the Investment.

⁶⁷ See for instance *Técnicas Medioambientales Tecmed, S.A. v. United Mexican States*, (ICSID Case No. ARB(AF)/00/2), Award 29 May 2003, para. 122

economy, health, security and morals within its territory is not contested by international law, just as expropriation is not *per se* unlawful in international law. Yet, the regulatory activity may well become expropriatory, when its effects have gone beyond legitimate exercise of the police power. Likewise, expropriation may turn unlawful when the host State omits compliance with certain conditions such as payment of compensation. In turn, limitations to the regulatory prerogatives of States may be the effect of obligations acquired under international law – as discussed in the next Section – yet, such limitations may not imply a derogation of State’s sovereignty, but rather the effect of the exercise of State’s sovereign power.

The question then follows as to why host States have started to perceive that the adoption of IIAs potentially has a chilling effect on their regulatory prerogatives.⁶⁸ Two possible scenarios may address this inquiry. The first scenario relates to the negotiation and adoption of IIAs under which States have the opportunity to secure the exercise of their sovereignty by contracting out of certain prerogatives from the scope of their treaty obligations. As Professor Alvarez explains, several IIAs have adopted strict rules in favour of investors’ interests. However one could also argue that the provisions contained in IIAs were broad in nature, as is the case of expropriation, and arbitral tribunals may have interpreted them in such a way that the decision was beneficial to investors. Indeed, the broad interpretation of the expropriation standard, for instance, raised concern in developed countries acting as capital importing countries – *e.g.* US, Canada, Germany, Spain –

⁶⁸ This argument has been put forward by various authors who address the topic of international investment law in the context of potential conflicts with environmental, labour and health legislation. See for instance Schreiber, "Realizing the Right to Water in International Investment Law: An Interdisciplinary Approach to BIT Obligations"; Mann, "Implications of International Trade and Investment Agreements for Water and Water Services: Some Responses from Other Sources of International Law"; Mann, "The Right of States to Regulate and International Investment Law"; Gus Van Harten, "Five Justifications for Investment Treaties: A Critical Discussion" *Trade, law and development Trade, Law and Development* 2, no. 1 (2010); Lorenzo Cotula, "Stabilization Clauses and the Evolution of Environmental Standards in Foreign Investment Contracts" *Yearbook of International Environmental Law* 17(2006); Cumming and Froehlich, "NAFTA Chapter XI and Canada's Environmental Sovereignty: Investment Flows, Article 1110 and Alberta's Water Act". On the issue see also the cases raised by Canada in Sun Belt, and in fuel additives. Recently in May 2012, the Czech Republic announced its plan to approve a moratorium on shale gas exploration that would ban research projects for nearly two years. The Minister of Energy in this expressed his concern about potential arbitration cases against the Czech Republic due to insufficient and flawed legislation. See

The Prague Post, *Residents reject shale gas drilling, May 16 2012*. Available at: <http://www.praguepost.com/business/13127-residents-reject-shale-gas-drilling.html>, last visited September 20, 2013. The scope of this work, however, does not consider data and evidence as to whether international obligations, acquired under IIAs have a chilling effect on the regulatory activity of host States.

which encountered hurdles to the exercise of their own police power.⁶⁹ In order to remedy such a situation, they sought renegotiations of IIAs, devising specific rules for the analysis of indirect expropriation.⁷⁰

The second scenario is the international investment arbitration regime. There are still hundreds of IIAs containing broad rules on direct and indirect expropriation, which have not been renegotiated. These rules would be interpreted by arbitral tribunals when a dispute emerges, which means that the police powers of the States are yet to be decided under the arbitration regime by arbitral tribunals themselves.

The police power has been addressed in various investor-State arbitration cases, the analysis of which has not always reached consistent conclusions.⁷¹ In addition, arbitrators have not applied the same criteria to determine whether the exercise of the police power has gone too far in diminishing the investors' property rights. For instance, arbitral tribunals apply different criteria to determine whether an expropriation has occurred. Some arbitrators, while not contesting the police power of States, focus only on the effects that the regulatory measure has had on investor's property rights. Another group of arbitrators do give relevance to the regulatory prerogative of the State and consider whether it can be balanced against the effects it had on the protected investment.

Scholars have reflected on the criteria used by arbitrators when deciding claims on indirect expropriation. There is agreement among them with regard to the relevant elements of analysis that may determine the existence of indirect expropriation.⁷² However, there is opposition that argues that this test is not part of the framework of investment arbitration.⁷³ Before analysing the police power in the context of international law and investment arbitration, it

⁶⁹ See Chapter III, Section 3.2. *supra* notes 18, 19

⁷⁰ See for instance the new Free Trade Agreements negotiated by the United States with South Korea, Chile, and Dominican Republic and Caribbean Countries.

⁷¹ See Section 3.6.2.

⁷² See August Reinisch, ed. *Standards of Investment Protection* (Oxford: Oxford University Press, 2008); August Reinisch, "Legality of Expropriations", in *Standards of Investment Protection*, ed. August Reinisch (Oxford: Oxford University Press, 2008); Reinisch: *Oxford Handbook of International Investment Law, Standards of Investment protection*; Stern, "In Search of the Frontiers of Indirect Expropriation". See also the analysis of Article 1110 of NAFTA in the issue of expropriation versus regulation in the Separate Opinion of Dr Brian Schwartz in the *Partial Award of S.D. Myers Inc. v The Government of Canada, November 12, 2000*.

⁷³ Kenneth J. Vandavelde, *Bilateral Investment Treaties. History, Policy, and Interpretation* (Oxford: Oxford University Press, 2010). In this regard see also the discussion held in OGEMID forum, Archive, November 28 2005, '*Methanex - erroneus on expropriation?*' (*under Chatham Rules*)

is important to briefly address the background of international investment as it stands today, and to devote further attention to a specific standard of protection, namely expropriation, which is the primary standard under scrutiny in this study.

3.4 Obligations of host States under Public International Law

3.4.1 Historical Background on the Protection of Alien Property

3.4.1.1 The Minimum Standard of Treatment

The protection of aliens abroad was originally intended to guarantee the development and security of alien economic interests in the foreign countries in which they were residing. These protections included, as inherent rights of all persons, access to justice and impartiality of treatment.⁷⁴ This standard translated into a national treatment standard where nationals and aliens would be treated equally.⁷⁵ In principle, this standard sought the application of the same laws, procedures and institutions, as well as procedural guarantees, to nationals and aliens.⁷⁶ However, during this period, both North American and European States started seeking additional protection for their citizens and corporations⁷⁷ by claiming that the law of former colonies in Latin America, Asia and Africa, '[were] considered inferior, not well developed or

⁷⁴ Newcombe and Paradell assert that 'International law treatises written in the early 1900s focus on issues such as denial of justice, equality before the law and mob violence, usually in the context of the rights of the individual'. In making this point, they refer to a group of scholars such as Brownlie, Oppenheim, Westlake, Wilson, whose writings focused especially on issues such as equality before the law, denial of justice, mob violence. See Andrew Newcombe and Lluís Paradell, *Law and Practice of Investment Treaties: Standards of Treatment* (Alphen aan den Rijn: Kluwer Law, International. Wolters Kluwer, 2009), 11, at fn 56.

⁷⁵ Elihu Root, "The Basis of Protection to Citizens Residing Abroad" *American Journal of International Law* 4, no. 3 (1910), 527-28.; Stephan Schill, *The multilateralization of international investment law* (Cambridge, UK: Cambridge University Press, 2009), 26.

⁷⁶ See for instance Emmerich Vattel when referring to the treatment of aliens, as much subject to the law of the territory they are being allowed to enter, as they are entitled to the protection and security, in the same manner as the nationals of the host territory. Vattel Emmerich, *The Law of Nations of the Principles of Natural Law* (Available at <http://www.lonang.com/exlibris/vattel/vatt-208.htm>, last visited 2 June 2011, 1758). Book 2, Chapter VIII, paras. 101, 104.

⁷⁷ Newcombe *et al* assert that American and European jurists recognised the existence of a minimum standard of justice, in the protection of foreigners abroad. See Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*: 11.

failed to meet standards of justice and equity'.⁷⁸ The 'minimum standard of treatment', as a rule of customary international law, raised the level of the national treatment standard in order to reach general principles of law recognised by civilized countries. Schwarzenberger asserts that the national standard could not replace the minimum standard of treatment. This meant that the inclusion of a national treatment standard in an agreement would not preclude the preferred application of the international minimum standard under customary international law.⁷⁹ The Commission, in deciding the case of *Neer v United States of Mexico*, dealt with a claim of denial of justice brought by the US against Mexico by defining the parameters of the minimum standard as it continues to be expressed today.⁸⁰

Latin American countries have traditionally challenged the privileges of foreign investors in their territories by asserting that they should be treated in the same manner as their own nationals.⁸¹ Carlos Calvo, an Argentinian jurist, asserted that aliens should not be afforded treatment more favourable than that afforded to the nationals of the receiving country.⁸² Accordingly, 'the twin pillars of the Calvo Doctrine are the absolute equality of foreigners with

⁷⁸ Surya P. Subedi, *International Investment Law: Reconciling Policy and Principle* (Oxford; Portland, OR: Hart, 2008), 9. In this regard, Elihu Root warned in 1910, that not all countries have always transparent and impartial legal systems in place, and the lack of legal stability may endanger the most basic guarantees of fair trial.

Newcome *et al* assert that American and European jurists recognized the existence of a minimum standard of justice, in the protection of foreigners abroad. See Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*, 11.

⁷⁹ Georg Schwarzenberger, *International law as applied by international courts and tribunals* (London: Stevens, 1957), 248. See also Borchard, referring to the principle of equality, for instance by the Chilean Civil Code, written by Andres Bello in 1855: 'In granting such equality, they go beyond the requirements of international law. But in so doing they cannot, as some profess, escape the obligations of international law. And the civil equality, even if it were in practice granted as written, is a very limited one and hardly different from that accorded by most western States'. Edwin Borchard, "The "Minimum Standard" of the Treatment of Aliens" *American Society of International Law: Proceedings. Thirty-Third Annual Meeting. April 27-29 33(1939)*, 55.

⁸⁰ In the Commission's view 'the propriety of governmental acts should be put to the test of international standards and the treatment of an alien should be carried out in such a way that all elements of impartiality and transparency are disregarded, and the 'insufficiency of governmental action so far short of international standards that every reasonable and impartial man would readily recognize its insufficiency' *L. F. H. Neer and Pauline Neer (U.S.A.) v. United Mexican States*, Volume IV p. 60-66 United Nations, 2006, 61-62 (15 October 1926).

⁸¹ Subedi, *International Investment Law: Reconciling Policy and Principle*, 8.

⁸² 'In Calvo's view, State equality required that there be no intervention, diplomatic or otherwise, in the internal affairs of other States, and that foreigners were not entitled to better treatment than host State nationals' Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*: 13.

nationals and the principle of non-intervention'.⁸³ For instance, Latin American countries have resisted the internationalization of disputes, as well as the application of higher standards of protection for foreign aliens. This approach has been reflected generally in provisions of laws, treaties and agreements that preclude recourse to commercial arbitration by foreigners, or that at a minimum provide for the exhaustion of local remedies before resort to international dispute settlement.⁸⁴ As Bishop points out, however, Latin American countries eased their position by adopting investment laws, concession contracts, and international investment agreements that allow for the settlement of disputes in international forums that require the application of international law.⁸⁵ This scenario is – in some cases - shifting back towards Calvo-era doctrines as some Latin American countries (*e.g.* Bolivia, Ecuador and Venezuela) have withdrawn from arbitration centres such as the International Centre for the Settlement of Investment Disputes (ICSID). Other countries, such as Argentina and Nicaragua, have threatened to withdraw.⁸⁶ For these countries, there has been an overall dissatisfaction with the settlement of disputes through investment treaty arbitration. The reasons for this dissatisfaction include the large amounts in compensation demanded by foreign investors, as well as a perceived partiality or bias towards investors' claims.⁸⁷ While the minimum standard of treatment under international law

⁸³ D.R. Shea as cited by Andrew Newcombe, Lluís Paradell, and International Kluwer Law, *Law and practice of investment treaties: standards of treatment* (Alphen aan den Rijn: Wolters Kluwer, 2009), 11.

⁸⁴ R. Doak Bishop and E. Etri James, "International Commercial Arbitration in South America" Available at: <http://www.kslaw.com/library/pdf/bishop3.pdf>, last visited June 9, 2011, 4, 11-13. Bishop refers to a number of Constitutional and (generally) Civil Code provisions adopted by Latin American countries, such as Colombia, Costa Rica (providing for equal treatment between national and aliens, but Calvo Clause in some concession contracts); Chile (precluded third party arbitral proceedings); Ecuador ('renuncia diplomática'). In this vein, the US for instance has adopted the position that the requirement of exhaustion of local remedies does not breach obligations under international law, as long as local remedies satisfy the international minimum standard. See Bishop *ibid.*, 11-4.

⁸⁵ *Ibid.*, 11-16, 7.

⁸⁶ See for instance International Law Reporter, *Bolivia's Denunciation of the ICSID Convention*, 8, July, 2007. Available at: <http://ilreports.blogspot.com/2007/07/bolivias-denunciation-of-icsid.html>, last visited 12 June, 2013. Investment Arbitration reporter, Stated that the Ecuadorian government explained in a brief note that '[T]he terms of a new constitution approved last year in a popular referendum. Article 422 of the constitution contains a stricture against international agreements, which provide for investor-State arbitration, although the constitution exempts regional (Latin American) arbitration from that stipulation. See Investment Arbitration Reporter, *Ecuador becomes Second State to Exit ICSID; Approximately two-thirds of Ecuador's BIT Claims were ICSID-based*, 17 July 2009. Available at: <http://www.iareporter.com/articles/EcuadorExit>, last visited 12 June, 2013.

⁸⁷ With regard to the perceived dissatisfaction Nowrot observes: 'Rather, and even more notable, there are by now clear indications in State practice that an increasing number of countries assume a more cautious or even openly critical position on the presently predominant approach

has remained relatively unchanged throughout the twentieth century, the level of protection to aliens as required by international law has varied, reflecting the 'pendulum swings' of various political and economic movements.

3.4.1.2 Diplomatic Protection

Diplomatic protection during the nineteenth and early twentieth centuries included the use of force or threat thereof against the offender country. The era of Gun Boat Diplomacy witnessed numerous examples of military intervention against Latin American countries by British, German and Italian forces in the intent of protecting alien property and assets.⁸⁸ This use of force was strongly opposed by Latin American countries when the United Kingdom, Germany and Italy intervened in Venezuela in 1902 in order to enforce compliance with State-issued bonds.⁸⁹ The Hague Conventions I and II of 1899 and 1907, respectively, provided for the settlement of international disputes in a pacific manner 'as far as possible'.⁹⁰ The Hague Convention II included a provision, submitted by Argentine Foreign Minister Luis Drago, on the limitation of the use of force for the recovery of contractual debts.⁹¹ Note, however, that the abovementioned Convention still allowed for the use of force should the offender country refuse to reply and comply with an offer of arbitration.⁹² It was not until 1928, under the General Treaty for the

to the international legal protection of foreign investors. This applies in particular –albeit by far not exclusively – to the recently renewed suspicion displayed by many Latin American countries, which are among the primary drivers behind the “backlash” against the current international investment regime’. See Karsten Nowrot, *International investment law and the Republic of Ecuador from arbitral bilateralism to judicial regionalism* (Halle (Saale): Institute of Economic Law, 2010), 5.

⁸⁸ See Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*, 9. The authors state that between 1820 and 1914, Great Britain intervened Latin American countries in at least 40 occasions, seeking redress for alleged failures to protect aliens and property.

⁸⁹ Subedi, *International Investment Law: Reconciling Policy and Principle*, 12. See also Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*, 9.

⁹⁰ Article 1 of the Convention (I) for the Pacific Settlement of International Disputes (Hague I), 29 July, 1899, available at http://avalon.law.yale.edu/19th_century/hague01.asp, last visited, June 12 2011. And Article 1 of the Pacific Settlement of International Disputes (Hague II), October 18, 1907, available at http://avalon.law.yale.edu/20th_century/pacific.asp, last visited June 12, 2011.

⁹¹ Limitation of Employment of Force for Recovery of Contract Debts (Hague, II), October 18, 1907

⁹² Article 1, Limitation of Employment of Force for Recovery of Contract Debts (Hague, II), October 18, 1907.

Renunciation of War, that a full prohibition on the use of force was finally adopted.⁹³

The protection of patrimonial and inherent rights through diplomatic protection implies that the home State of the investor would represent the interest of its national, making the claim of the affected party its own.⁹⁴

In the *Mavrommatis Palestine Concessions* case, the Permanent Court of International Justice (PCIJ) asserted:

By taking up the case of one of its subjects and by resorting to diplomatic action or international judicial proceedings on his behalf, a State is in reality asserting its own rights, its right to ensure, in the person of its subjects, respect for the rules of international law.⁹⁵

Shaw explains that there is no legal obligation, under international law, for States to provide diplomatic protection to their citizens. As soon as the State takes the claim on its behalf, the case no longer constitutes a claim of the aggrieved national, but one of the State.⁹⁶ In addition, once a State undertakes such a claim, it becomes exclusively a claim of the State.⁹⁷

As trade and investment relations grow in number, complexity and quantum, citizens – today, most likely corporations – may face difficulties in lobbying their national governments when seeking redress for an internationally wrongful act that is affecting their inherent personal rights, economic interests and property rights, or benefits.⁹⁸

⁹³ Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*, 9-10.

⁹⁴ Vattel asserted that 'Anyone who mistreats a citizen directly offends the State', as quoted by Subedi, *International Investment Law: Reconciling Policy and Principle*: 12. Root contends that: 'When justice is denied for such reasons there is a failure on the part of the Government to perform its international duty, and a right on the part of the Government whose citizen has failed to secure justice to demand reparation. See Root, "The Basis of Protection to Citizens Residing Abroad", 526. Finally Borchard asserts that: '[F]ew foreign countries have been willing to abandon their nationals to the arbitrariness of corrupt courts or administrative bodies'. See Borchard, "The "Minimum Standard" of the Treatment of Aliens", 63.

⁹⁵ *Mavrommatis Palestine Concessions (Greece v. U.K.)*, 1924 P.C.I.J. (ser. B) No. 3 (Aug. 30), 12

⁹⁶ Malcolm N. Shaw, *International Law*, Fifth ed. (Cambridge, UK: Cambridge University Press, 2003), 722.

⁹⁷ Shaw asserts 'This is a result of the historical reluctance to permit individuals the right in international law to prosecute claims against foreign countries, for reasons relating to State sovereignty and non-interference in internal affairs'. *Ibid.*

⁹⁸ The WTO protects the attainment of benefits, as opposed to only the violation of a right. See for instance Jackson, referring to the dispute settlement process under the GATT which is 'usually invocable on grounds of 'nullification or impairment' of benefits expected under the Agreement, and did not depend on actual breach of legal obligation'. John H. Jackson, "Dispute

The novel investor-State arbitration regime departs from the traditional diplomatic protection provided by home States to national investors by allowing them to directly introduce claims against States hosting their investments, provided the home State of the investor and the host State have agreed beforehand on the possibility of arbitration in an international agreement such as a BIT. The host State may also grant rights directly to the investor through arbitration clauses – in concession contracts – under an ICSID arbitration mechanism. This particular dispute settlement regime will be discussed later in this chapter.

3.4.1.3 *The New International Economic Order (NIEO)*

The Russian Communist revolution (1917) and the Mexican agrarian revolution (1938) proclaimed State ownership and control over their natural resources. In such circumstances, the expropriation of foreign investors' assets was not accompanied by compensation in favour of the affected investors. The underlying argument for the lack of compensation for expropriation in these cases was based on the sovereignty of States over their natural resources.⁹⁹ Mexico rejected the conditions for payment of compensation demanded by the US. The exchange of diplomatic correspondence between the two countries led to the pronouncement of the Hull formula, which requires prompt, adequate and effective compensation in the case of State expropriation.¹⁰⁰ Developed countries have forcefully put forward the Hull formula as a requirement of lawfulness when expropriation takes place.¹⁰¹ In other words, expropriation, whether lawful or unlawful, requires prompt, adequate, and effective compensation.

Eventually, the discussion over the treatment of aliens and the protection of their assets was taken to a new forum, the UN General Assembly. After several years of consideration and analysis undertaken by the Commission on Permanent Sovereignty over Natural Resources, the General Assembly issued

Settlement and the WTO. Emerging Problems" *Journal of International Economic Law* 1, no. 3 (1998), 332.

⁹⁹ Subedi, *International Investment Law: Reconciling Policy and Principle*, 16.

¹⁰⁰ For reference to the process of negotiation between the diplomatic representatives of Mexico and United States (Hull) see *Ibid.*, 16-18.

¹⁰¹ M. Sornarajah, *The International Law of Foreign Investment*, Third ed. (Cambridge: Cambridge University Press, 2010), 125.

Resolution 1803,¹⁰² which: i) recognised the rights of peoples and nations to permanent sovereignty over their natural wealth and resources, ii) the application of national legislation to foreign capital, and iii) expropriation and nationalization should be carried out for public purpose and under payment of appropriate compensation.

General Assembly Resolution 3201¹⁰³ established a NIEO. While ratifying the principles set out in previous resolutions on PSNR, Resolution 3201 stated the need to regulate and monitor the actions of transnational corporations on their operations within the receiving country. Finally, the Charter of Economic Rights and Duties of States,¹⁰⁴ recognised the right of each State to:

[...] nationalize, expropriate or transfer ownership of foreign property, in which case appropriate compensation should be paid by the State adopting such measures, taking into account its relevant laws and regulations and all circumstances that the State considers pertinent. In any case where the question of compensation gives rise to a controversy, it shall be settled under the domestic law of the nationalizing State and by its tribunals, unless it is freely and mutually agreed by all States concerned that other peaceful means be sought on the basis of the sovereign equality of States and in accordance with the principle of free choice of means.¹⁰⁵

This resolution adopted several other principles reflected in many of the provisions contained in preceding resolutions mentioned above. The Charter was adopted by an impressive majority of 120 votes against six, and ten abstentions. However, the General Assembly Resolutions from 1974 on the NIEO show the increasing imbalance and lack of agreement between major capital exporting countries and capital importing countries (which held, and continue to hold, an overwhelming majority in the General Assembly). The absence of international law principles on the protection of aliens and the imposition of the capital importing country domestic law remain the most important factors for the perceived lack of legitimacy of these resolutions.

¹⁰² GA Resolution 1803 (XVII) of 14 December 1962.

¹⁰³ GA Resolution 3201 (S-VI) of 1 May 1974.

¹⁰⁴ GA Resolution 3281 (XXIX) of 12 December 1974. See also Burns H. Weston, "The Charter of Economic Rights and Duties of States and the Deprivation of Foreign-Owned Wealth" *American Journal of International Law* 75, no. 3 (1981); Subedi, *International Investment Law: Reconciling Policy and Principle*.

¹⁰⁵ See Article 2 (b) of the General Assembly Resolution 3281 (XXIX) Charter of Economic Rights and Duties of States, adopted in 2315th plenary meeting, 12 December 1974.

3.4.2 International Investment Agreements (IIAs)

3.4.2.1 Early Bilateral Treaties on Navigation and Commerce

Negotiation of commercial treaties, including provisions for the protection of private property and payment of compensation, started during the eighteenth and nineteenth centuries primarily between the US and Europe and some Latin American countries.¹⁰⁶ Likewise, peace treaties and other treaties signed for specific purposes other than commerce included private property protection provisions. For example the Jay Treaty of 17 November 1794 famously set out provisions on security for the peaceful enjoyment and protection of property.¹⁰⁷ Treaties of Friendship, Commerce and Navigation as well as Treaties of Friendship, Commerce and Consular Rights focused on trade, and often included investment provisions as well. These types of treaties provided for the protection of foreign nationals' property and the pacific enjoyment of private property.¹⁰⁸

As Wilson points out, treaty provisions before 1923 included reference to access to courts, embargoes and detentions, protection and security of property, and expropriation and compensation.¹⁰⁹ Treaties of commerce, signed after 1945, noticeably contain provisions related to the obligation to

¹⁰⁶ Robert R. Wilson, "Property-Protection Provisions in United States Commercial Treaties" *American Journal of International Law* 45, no. 1 (1951), 91-93.

¹⁰⁷ *Ibid.*, 91. The Jay Treaty between United States and Great Britain guaranteed several years of peace between the signatory parties and an end to the American Revolution.

¹⁰⁸ For instance *The Treaty of Friendship, Commerce and Consular Rights between the United States and Germany*, signed on December 8, 1923, US Treaty Series 725, promoting cultural, spiritual, economic and commercial aspirations of their citizens. Article 1 provides 'The nationals of each high contracting party shall receive within the territories of the other, upon submitting to conditions imposed upon its nationals, the most constant protection and security for their persons and property, and shall enjoy in this respect that degree of protection that is required by international law. Their property shall not be taken without due process of law and without payment of just compensation'. *The Treaty of Friendship, Commerce, and Consular Rights between the United States and El Salvador*, signed on 22 February 1926, US Treaty Series N. 827. Article 1 provides that persons and their property shall enjoy constant protection and security at all times, in accordance with international law. The taken of property, should only be undertaken upon payment of just compensation and in observance of due process of law. In contrast, the *Treaty of Commerce and Navigation between the United States of America and the Turkish Republic*, signed on 1 October 1929, US Treaty Series N. 813, which contains mainly trade provisions and the most-favoured-nation treatment standard. See also Schill, *The multilateralization of international investment law*, 29-30. Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*, 41-42.

¹⁰⁹ Wilson referring to the treaties of commerce negotiated and signed by the United States. See Wilson, "Property-Protection Provisions in United States Commercial Treaties", 92.

pay compensation for takings of property.¹¹⁰ Note that the criteria adopted for compensation in these instruments are based partially on the Hull Formula of prompt, adequate and effective compensation. In some cases, the signing of commerce-based treaties in the post-War period was a reaction against the perceived shift in customary international law that resulted from the General Assembly resolutions calling for the NIEO. These treaties allowed capital exporting countries to seek additional protection for their patrimonial interests abroad through specific *lex specialis* agreements. However, in this context Wilson argues that in particular cases both customary international law and treaty law could be invoked: 'it is also clear that parties to a treaty may provide for treatment more specific and more favourable to aliens than would a provision to apply [customary] international law'.¹¹¹

Bilateral treaty negotiations parallel to the discussions over the NIEO, previous to and shortly after 1974, are regarded as a period of 'rationalization undertaken by the State'.¹¹² There exists a contrast between collective positions of developing countries in their international economic relations during the NIEO negotiations and the stances adopted individually at the national level in order to attract foreign investment.¹¹³

The period of negotiation of treaties of friendship, commerce and navigation show a development in the protection of property and payment of compensation.¹¹⁴ The second half of the twentieth century shows the adoption of more specific rules with regard to expropriation for public purpose and the payment of prompt, adequate, and effective compensation. While the prerogative of States to regulate does not appear clearly articulated in the commerce treaty negotiations, it was at the heart of the PSNR and NIEO

¹¹⁰ Wilson referring to the treaties of commerce negotiated and signed by the United States in the period between 1945 and 1956, Robert R. Wilson, "A Decade of New Commercial Treaties" *American Journal of International Law* 50, no. 4 (1956), 930. Note, for instance, the Treaty of Friendship, Commerce and Navigation between the United States and Japan of 1953, in which the parties agree to refrain from taking of property, except for a public purpose and upon payment of prompt and just compensation (Article VI-3). Available at <http://www.mac.doc.gov/japan-korea/market-opening/US-Japan%20Treaty%20on%20Friendship%20Commerce%20and%20Navigation%201953-04-02.pdf>, last visited on January 25 2012.

¹¹¹ Wilson, "Property-Protection Provisions in United States Commercial Treaties", 91.

¹¹² Sornarajah, *The International Law of Foreign Investment*, 23.

¹¹³ *Ibid.*

¹¹⁴ See for instance the Treaty of Friendship Commerce and Navigation between the United States and Argentina, proclaimed in 1855, in which the provisions of Articles XII and XIII, provide for the protection of property, yet on the bases of non-discriminatory and full protection principles. Available at http://avalon.law.yale.edu/19th_century/argen02.asp, last visited on January 25 2012.

discussions. Unfortunately there was not much cross-fertilization between the signing of commercial treaties on the one hand, and discussions in the UN General Assembly on the other. The next subsection discusses one of the attempts towards a multilateral investment agreement that – arguably – sought to balance commercial interests of foreign investors against the State’s prerogative to regulate in the public interest.

3.4.2.2 The OECD Multilateral Agreement on Investment

Between 1995 and 1998 the Organisation for Economic Cooperation and Development (OECD) promoted negotiations for a Multilateral Agreement on Investment (MAI). Previous to this initiative, some other plurilateral projects such as NAFTA and the ECT were signed and entered into force. Previous attempts at multilateral investment treaties had failed, including *inter alia*, the Draft Convention on the Treatment of Foreigners,¹¹⁵ and the Havana Charter that promoted the International Trade Organisation.¹¹⁶ The MAI did not fare any better. A lack of consensus and social pressure prevented the MAI from ever being adopted.¹¹⁷ Arguments in favour of the MAI emphasized consistent interpretation of substantive rules, disincentives for a ‘race to the bottom’ among capital-importing countries, guarantees against discrimination between foreign investors and the possibility of a predictable dispute settlement regime. As a commentator points out, the MAI failed due to the ‘lack of political support, protectionist opposition of the influential French cultural industries and NGO-criticism related to the widespread anti-globalization campaigning against international economic organisations’.¹¹⁸ Critical views consider that

¹¹⁵ Draft Convention on the Treatment of Foreigners, was drafted by officials of the League of Nations and the International Chamber of Commerce. It aimed a broad scope of all economic activity as well civil and legal rights on the acquisition, and transmission of property by foreigner. As commented by Van Harten it failed due to objections to the inclusion of the national treatment. See Gus Van Harten, *Investment Treaty Arbitration and Public Law* (New York: Oxford University Press, 2007), 19. For further reading on the Draft Convention see Arthur K. Kuhn, "The International Conference on the Treatment of Foreigners" *The American Journal of International Law* 24, no. 3 (1930).

¹¹⁶ The *Havana Charter for an International Trade Organization (ITO)*, 24 March 1948, contained in UN Conference on Trade & Employment, UN Doc. E/CONF.2/78 (1948).

¹¹⁷ Van Harten, *Investment Treaty Arbitration and Public Law*: 22.

¹¹⁸ Abba Kolo and Thomas Wälde, "Environmental Regulation, Investment Protection and "Regulatory Taking" in International Law" *International and Comparative Law Quarterly* 50, no. 4 (2001): citing Henderson footnote 5. Jan Paulsson wrote in 1995: "Such a document would then supplant BITs, which are threatening to create confusion by their variety of formulations. In other words, what is envisaged is a *global charter* for a legal regime applicable to all types of investments, overarching both regional and sectorial treaties". Jan Paulsson, "Arbitration without Privity" *Foreign Investment Law Journal* 10, no. 2 (1995), 257.

the OECD members saw it as a convenient forum for the MAI negotiations because it could negotiate provisions that favoured capital-exporting countries to the detriment of capital importing-countries.¹¹⁹ There also appeared to be a disproportionate emphasis on the protection of foreign investment, while dismissing other concerns such as the protection of the environment and human rights.¹²⁰

3.4.2.3 International Investment Agreements (IIAs)

The relevance of these agreements¹²¹ in the field of international investment lies in the investment protection provisions and dispute settlement clauses incorporated in them.

In the case of investment treaties and investment clauses, it seems difficult to assert to what extent the text of the treaty – stipulating a standard of protection – determines the decision of an arbitral tribunal, and to what extent the contextual application and interpretation of the same treaty provision – by an arbitral tribunal – may determine the outcome of the dispute. There is ongoing academic and diplomatic discussions on the legitimacy and fairness of the content of IIAs and how they are negotiated.

Contracting parties to an investment agreement aim at protecting a wide range of economic activities within the territory of a host State. It follows that in order to cover these economic activities within the definition of investment, incorporated in the treaty, the provisions tend to be open-ended, and in turn rather broad. The standards of investment protection provide guarantees, *inter alia*, of:¹²² i) national treatment, ii) most-favoured nation treatment, iii) fair and

¹¹⁹ Van Harten, *Investment Treaty Arbitration and Public Law*, 22. See also Sornarajah, *The International Law of Foreign Investment*, 54.

¹²⁰ See Sornarajah, *The International Law of Foreign Investment*, 54.

¹²¹ The term IIAs includes generally Bilateral Investment Treaties (BITs), Preferential Trade and Investment Agreements, such as Free Trade Agreements (FTAs) or other cooperation agreements, up to 2011 UNCTAD included in its notion of IIA International Taxation Agreements (ITAs). For instance, NAFTA Chapter 11 refers to the issue of Investment. This extensive chapter includes standards of investment protection as well as dispute settlement mechanism. Similar provision can be found in the DR-CAFTA, ASEAN. The number of BITs has increased exponentially since the 1950's, UNCTAD reports that by May of 2011, 6140 IIAs were negotiated (this data includes Double Taxation Treaties).

¹²² Most importantly, but not restricted to... There is extensive literature on the standards of protection, among which the most influential ones have been written by Rudolph Dolzer and Christoph Schreuer, *Principles of International Investment Law* (Oxford: Oxford University Press, 2nd edition, 2012); Reinisch, *Standards of Investment Protection*; Sornarajah, *The International Law of Foreign Investment*; Newcombe and Paradell, *Law and Practice of Investment Treaties*:

equitable treatment; iv) full protection and security; v) non-performance requirements; and vi) non-expropriation without compensation.

This work focuses on the standard of expropriation with compensation, and more specifically indirect expropriation. The definition of expropriation in the context of IIAs is increasingly changing, as states adopt new stances toward their police power and the scope of its exercise. Past negotiated IIAs, many of them still in force, do not provide a definition of expropriation but instead include abundant terminology in order to cover a broad variety of measures that could have a confiscatory effect over investors' assets.¹²³ The provisions of IIAs generally cover expropriation – direct and indirect – and any other *measure tantamount or equivalent* to expropriation or measures having a *similar or equivalent effect* to expropriation.

In the last three years, UNCTAD has reported a shift in the approach towards a more balanced negotiation of IIAs with an observable effect on the definition and scope of expropriation. In 2010, UNCTAD reported that governments sought to formulate more specific provisions in their agreements: for instance, regarding the scope of the parties' right to regulate. One of the most important additions to the State's right to regulate has been the protection of the environment.¹²⁴

The exercise of the police power within the traditional areas of public health, safety and environment were notably incorporated in the 2004 US Model BIT. For the purpose of this work – especially the analysis undertaken in Chapter

Standards of Treatment. Subedi, *International Investment Law: Reconciling Policy and Principle*. See on the Fair and Equitable Treatment Standard Peter Muchlinski, "Caveat Investor? The Relevance of the Conduct of the Investor under the Fair and Equitable Treatment Standard" *International and Comparative Law Quarterly* 55 (2005).

¹²³ Stern, "In Search of the Frontiers of Indirect Expropriation", 30.

¹²⁴ UNCTAD reported in 2010: '[M]any recent treaties, whether new, renegotiated or revised, suggest that governments, developed and developing countries alike, are increasingly seeking to formulate agreements more precisely, by clarifying the scope of treaties or the meaning of specific obligations, in order to preserve States' right to regulate.' United Nations Conference on Trade Development (UNCTAD), "World Investment Report 2010: Investing in a low-carbon economy," (New York: United Nations, 2010), xxxvi, 87. See for instance United States 2004 Model Bilateral Investment Treaty and United States 2012 Model Bilateral Investment Treaty; Foreign Investment Promotion and Protection Agreement, 2004 Canada, available at <http://italaw.com/documents/Canadian2004-FIPA-model-en>, last visited February 13, 2013; United States-Dominican Republic, Central America Free Trade Agreement, 2004 (DR-CAFTA), available at: <http://www.ustr.gov/trade-agreements/free-trade-agreements/cafta-dr-dominican-republic-central-america-fta>, last visited February 13, 2013; ASEAN Comprehensive Investment Agreement, 2012. Available at http://www.thaifta.com/trade/ascorner/asean_doc2.pdf, last visited February 13, 2013. These treaties provide arbitral tribunals with extensive guidance as to the treatment of indirect expropriation claims.

IV – the exercise of the police power within the narrow scope of public health, safety and the environment will be referred as police power *strictu sensu*. In this regard the provisions of expropriation are to be read in the light of Annex B of the 2004 US Model BIT:

Except in rare circumstances, non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations.¹²⁵

In addition, the 2004 US Model BIT provides for a wider exercise of regulatory prerogative of states, which this works refers as police power *latu sensu*:

The determination of whether an action or series of actions by a Party, in a specific fact situation, constitutes an indirect expropriation, requires a case-by-case, fact-based inquiry that considers, among other factors:

- (i) the economic impact of the government action, although the fact that an action or series of actions by a Party has an adverse effect on the economic value of an investment, standing alone, does not establish that an indirect expropriation has occurred;
- (ii) the extent to which the government action interferes with distinct, reasonable investment-backed expectations; and
- (iii) the character of the government action.¹²⁶

The Common Market for an Eastern and Southern African Investment Agreement, Common Investment Area (2007) states that ‘bona fide regulatory measures taken by a Member State that are designed and applied to protect or enhance legitimate public welfare objectives, such as public health, safety and the environment, shall not constitute an indirect expropriation’.¹²⁷ Such provision invokes the legitimate exercise of the police power as recognised under customary international law.

The US-Korea Free Trade Agreement (FTA),¹²⁸ while in line with previous US FTAs, also expands the provisions with regard to the parties’ right to regulate. It establishes in Annex 11-B (3)(a) of the agreement that: i) the economic impact of the governmental action should not be considered in isolation, ii)

¹²⁵ US BIT Model 2004 Article 6 Expropriation, Annex B (b). Likewise, the Dominican Republic-Central America-United States Free Trade Agreement has adopted in Annex 10-C (4)(b) the same provision regarding the exceptional character of regulatory measures applied over investors’ property rights.

¹²⁶ US BIT Model 2004 Article 6 Expropriation, Annex B (a)

¹²⁷ See Article 20(8) Available at <http://vi.unctad.org/files/wksp/iiawksp08/docs/wednesday/Exercise%20Materials/invagreecomesa.pdf>

¹²⁸ *United States – Korea Free Trade Agreement*, entered into force 15 March 2012.

investment backed expectations should be reasonable (i.e. investors are expected to know the dynamics of the sector they are entering into),¹²⁹ and iii) the governmental action should be characterized in regard to the level of burden that investors are expected to endure for the public interest and that this analysis should be done on a case-by-case basis.¹³⁰ Finally, paragraph (3)(b) states:

except in rare circumstances, such as, for example, when an action or a series of actions is extremely severe or disproportionate in light of its purpose or effect, non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, the environment, and real estate price stabilization (through, for example, measures to improve the housing conditions for low-income households), do not constitute indirect expropriations.¹³¹

Not only has there been an expansion of newly negotiated FTAs with investment chapters, there has also been some renegotiation of investment agreements, and notably the modification of Model BITs. Arbitral tribunals' decisions could have influenced reflection over the provisions contained in the first generation of IIAs, as their awards have contributed significantly to the development of international investment law overall.¹³² The World Investment Report 2010 identifies four main drivers for the revision of Model BITs: i) clearer and more precise treaty provisions, ii) consistency with countries' public policy, right to regulate, and economic agenda, iii) balance between investors' and countries' interests, iv) adjustment of BIT to new developments, such as the interpretation adopted by arbitral tribunals in investor-State arbitration cases.¹³³ The right of States to regulate appears to be at the forefront of discussions regarding the legitimacy of investor-State dispute settlement,¹³⁴ and this may imply cross-fertilization between the negotiation of IIAs and their interpretation at the dispute settlement level.

¹²⁹ *Ibid.* Annex 11-B (3)(a)(ii) footnote 18.

¹³⁰ *Ibid.* Annex 11-B (3)(a)(iii)

¹³¹ *Ibid.* Annex 11-B (3)(b)

¹³² United Nations Conference on Trade and Development (UNCTAD), *World Investment Report 2009: Transnational Corporations, Agricultural Production and Development* (Geneva: UNCTAD, 2009), 32.

¹³³ United Nations Conference on Trade Development (UNCTAD), "World Investment Report 2010: Investing in a low-carbon economy", 85.

¹³⁴ *Ibid.*, 87.

3.5 Expropriation

Professor Schreuer, in his introductory remarks at a Conference on the Standards of Investment Protection held in 2007, stated that expropriation has been for a long time the most important standard of protection in international law. In the past protection of investment was equivalent to protection against expropriation without compensation.¹³⁵ Nowadays, however, this standard has retreated and direct expropriations have become unusual.¹³⁶ Regulatory, creeping and indirect expropriations have become much more common in international practice.

Expropriation is not illegal *per se*. The right to expropriate has been widely recognised in public international law under the principle of internal sovereignty, whereby a State derives an ability to legitimately exercise its discretionary power over nationals and aliens equally.¹³⁷ The 1959 Report on Expropriation of the International Law Commission (ILC) stated:

In fact, save in the exceptional circumstances [...] an act of expropriation, pure and simple, constitutes a lawful act of the State and, consequently, does not *per se* give rise to any international responsibility whatever.¹³⁸

Furthermore, the ILC expresses that State responsibility can arise when expropriatory measures are adopted inconsistently with the international standards that guide the exercise of the right to expropriate. In such cases, the omission to observe the standards constitutes an arbitrary exercise of the right of States to expropriate. The elements leading to a finding of international responsibility for an *arbitrary* act of expropriation have been identified by the Special Rapporteur Garcia Amador as regarding: i) the motives and purpose of the expropriation, ii) the method or procedure adopted, iii) discrimination between nationals and aliens, and iv) the payment of compensation.¹³⁹

These elements are currently incorporated in most IIAs and have become part of the rule of law as regards to the limitations to the right to expropriate by host States. The breach of such treaty obligations would constitute an

¹³⁵ Christoph Schreuer, "Introduction: Interrelationship of Standards", in *Standards of Protection*, ed. August Reinisch (Oxford: Oxford University Press, 2008), 1.

¹³⁶ *Ibid.*

¹³⁷ International Law Commission, "Yearbook of the International Law Commission 1959 - Volume II. Documents of the eleventh session including the report of the Commission to the General Assembly," (New York: United Nations, 1959), 11.

¹³⁸ *Ibid.*

¹³⁹ *Ibid.*, 8, 14.

unlawful expropriation.¹⁴⁰ Reflecting on these elements, Professor Schreuer's introduction into the notion of expropriation becomes apparent - expropriation used to be considered the only standard of protection. One could argue that a majority of standards of protection – currently embedded in IIAs – would have developed to a certain degree from those elements of non- arbitrariness.¹⁴¹ This is relevant in the context of evaluating expropriation claims, as in many respects, the standards of protection in modern IIAs are linked to one another.

The criteria coined by Garcia Amador, which informs the test to determine the existence of arbitrariness in expropriation, is included nowadays in IIAs as follows: i) public purpose, ii) non-discrimination, iii) due process of law, and iv) payment of compensation.

Some IIAs omit one criterion, while others add additional requirements in order for the contracting parties to meet the needs of their own context. In addition, there have been modifications to some requirements, through current renegotiation of IIAs, in order to face new challenges and situations that were not foreseen by the parties.

One of these situations is the issue of regulatory measures that have an effect, substantial or not, permanent or temporary, on the property of investors. In this case, a transfer of ownership from the investor in favour of the State, its institutions or third parties, would not take place. Instead, substantial deprivation or dispossession of the investment interests may have an effect equal to expropriation, rendering the investment useless. In such cases, a distinction should be made as to when an actual indirect expropriation has taken place, and when the measure constitutes a legitimate regulation, which inherently does not entitle any compensation.

Several authors, addressing this distinction refer to regulatory measures as lawful and uncompensable regulations. Such description, however, appears a

¹⁴⁰ *Ibid.* The ILC report identifies arbitrary expropriation from unlawful expropriation, the latter consist of the breach of international treaties and contracts (concession and licences), that is when the contracting party has made a commitment not to expropriate, which will consider exceptions that allow States to take such expropriatory measures.

¹⁴¹ The element of method and process may have further developed in the other specific standards of protection, such as full protection and security and fair and equitable treatment, as linked to the issues of transparency, denial of justice and due process of law, to mention some. The non-discrimination element may have developed in the standards of national treatment and most-favoured nation treatment. In sum, the analysis of a claim of expropriation appears to require a comprehensive approach to various elements that are otherwise independently embedded in IIAs.

tautology, since regulations entail a presumption of legality and do not raise the obligation to compensate.

The report of the ILC on Expropriation expressly considers such a distinction:

Moreover, the distinction between a State's acts of expropriation founded on the right of "eminent domain" and those which fall within the exercise of its police power—a distinction which originally stems from differences in grounds and purposes and also has a bearing on the question of compensation—is daily becoming more difficult to make, because of the evolution which the conception of the State's social functions has undergone in both those areas.¹⁴²

The next subsections address direct and indirect expropriation. Since indirect expropriation is the focus of this study, the issue of direct expropriation will only be discussed briefly.

3.5.1 Direct Expropriation

It is relevant to make a distinction between direct expropriation and nationalisation, and then address the specific issues relating to indirect expropriation (or regulatory takings), as they are the focus of this work.

The *Institut de Droit International* in 1952 defined nationalisation as 'the transfer to the State by legislative act and in the public interest, of property or private rights of a designated character, with a view to their exploitation or control by the State, as to their direction to a new objective by the State'.¹⁴³ This definition was further developed by Professor Francioni who incorporated a number of relevant elements to the definition above: *i) obligation, ii) general and impersonal character, iii) transfer of control or management by public bodies or private individuals/entities designated by the State*.¹⁴⁴

¹⁴² International Law Commission, "Yearbook of the International Law Commission 1959 - Volume II. Documents of the eleventh session including the report of the Commission to the General Assembly", 12.

¹⁴³ 44 *Annuaire de l'Institut de Droit International (II)* 279 et seq. (1952), 283. See also Kenneth S. Carlston, "Concession Agreements and Nationalization" *The American Journal of International Law* 52, no. 2 (1958); Newcombe and Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*.

¹⁴⁴ Francesco Francioni, "Compensation for Nationalisation of Foreign Property: The Borderland between Law and Equity" *The International and Comparative Law Quarterly* 24, no. 2 (1975), 257.

Likewise, the definition of expropriation generally considers the same elements, except for the character of singularity,¹⁴⁵ and the issue of compensation.¹⁴⁶ In a direct expropriation, the measure by the government is undertaken by individual administrative acts, for a public purpose, and is aimed at specific property rights. Nationalisation, on the other hand, concerns the transfer of an entire segment of the economy or an important part thereof. On certain occasions, the nationalisation measure may affect individual investments, such as natural resources industries,¹⁴⁷ or large banks.¹⁴⁸ There is, however, a key element that differentiates expropriation from nationalisation:

The political connotation, that is to say the intention of the State to operate an intervention in the economy in order to establish a certain measure of planning, is ultimately what keeps the nationalization qualitatively distinguished from expropriation.¹⁴⁹

Taking of property through nationalisation was more commonly seen during the first half of the past century.¹⁵⁰ This type of governmental measure is characterised for being sector-wide or industry-wide.¹⁵¹ For example, Mexico undertook large-scale nationalisations of land and natural resources in the aftermath of the Mexican agrarian revolution. Central and Eastern European countries adopted similar measures after the First World War.¹⁵²

¹⁴⁵ See for instance the Report on Expropriation prepared by the Special Rapporteur Garcia Amador in 1959 stated: "in brief, therefore, except in the matter of compensation, where important distinctions can be noted, the two juridical institutions are, at least from the point of view of international law, substantially the same." International Law Commission, "Yearbook of the International Law Commission 1959 -Volume II. Documents of the eleventh session including the report of the Commission to the General Assembly", 13.

¹⁴⁶ *Ibid.*

¹⁴⁷ Supreme Decrees 493 and 494 of 1 May 2010 and "Bolivia revierte a su dominio fundidora Vinto Antimonio", Agencia Boliviana de Información, 2 May 2010. See http://www.unctad.org/en/docs/webdiaeia20105_en.pdf

¹⁴⁸ Decree No.56, 7 June 2010. The *Kyrgyz Republic* nationalised one of the country's largest banks, the foreign-controlled Asia Universal Bank. See United Nations Conference on Trade and Development (UNCTAD), "World Investment Report 2011: Non-Equity Modes of International Production and Development," (Geneva: United Nations, 2011), 98.

¹⁴⁹ Francioni, "Compensation for Nationalisation of Foreign Property: The Borderland between Law and Equity", 258, fn 10.

¹⁵⁰ United Nations Conference on Trade and Development (UNCTAD), "International Investment Agreements: Key Issues Volume II", 3.

¹⁵¹ Meg N. Kinnear, Andrea K. Bjorklund, and John F. G. Hannaford, *Investment Disputes under NAFTA. An Annotated Guide to NAFTA Chapter 11* (Alphen aan den Rijn Kluwer Law International, 2006), 1110-13.

¹⁵² United Nations Conference on Trade and Development (UNCTAD), "International Investment Agreements: Key Issues Volume I," (Geneva: United Nations, 2004), 6.

The specific character of direct expropriation, on the other hand, is generally directed at a single investor or applied to one specific property.¹⁵³ Governmental measures resulting in nationalisations or direct expropriation are rarely seen nowadays.¹⁵⁴ The unfavourable publicity of such a drastic action would negatively affect the investment climate in the host State, hence an open seizure of property is not considered as a wise undertaking.¹⁵⁵

A detailed analysis of the issue of direct expropriation is beyond the scope of this work, as it is analysed under a distinct legal framework; further, identifying a direct expropriation is generally not a difficult task.¹⁵⁶ Tribunals which are to decide on a measure that directly expropriates an investment need not enter into further consideration as to whether an expropriation has occurred (as opposed to a legitimate regulation).

In such cases, the tribunals will generally consider the legality or illegality of the expropriation by assessing whether the requirements established under the agreement have been met. Claims of direct expropriation and nationalisation may only become contentious over the issue of compensation. Rarely will a direct expropriation be an unsuccessful claim by an investor, thus the discussions will focus on the amount of compensation and the methodology for calculation. However, absence of an agreement may call, for instance under the ICSID Convention, for the application of domestic law and international law, as appropriate.¹⁵⁷

¹⁵³ Kinnear, Bjorklund, and Hannaford, *Investment Disputes under NAFTA. An Annotated Guide to NAFTA Chapter 11*, 1110-13.

¹⁵⁴ Note however, that some Latin American governments have started a trendy wave of nationalizations: In 2006 president Evo Morales nationalised oil fields in Bolivia. In 2007 president Hugo Chavez, also nationalised oil fields in Faja de Orinoco, operated by American, Norwegian, French and British investors. ('Estamos recuperando la propiedad y la gestión de estas áreas estratégicas') We are recovering the ownership and control of these strategic sectors, he asserted (own translation). See BBC News, "Chavez Nacionaliza Campos Petroleros", BBC World.com, 27 February 2007, available at:

http://news.bbc.co.uk/1/hi/spanish/business/newsid_6399000/6399481.stm

¹⁵⁵ Schreuer, "The Concept of Expropriation under the ECT and other Investment Protection Treaties", 2.

¹⁵⁶ See *Suez, Sociedad General de Aguas de Barcelona, S.A. and Vivendi Universal, S.A. v. Argentine Republic*, (ICSID Case No. ARB/03/19), *Decision on Liability* (30 July 2010) (France/Argentina and Spain/Argentina BITs), para. 132, and *Marvin Roy Feldman Karpa v. United Mexican States* (ICSID Case No. ARB(AF)/99/1) *Award* 16 December 2002, para. 100. Where both tribunals state that recognizing a direct expropriation is not difficult, comparing the task with identifying an indirect expropriation.

¹⁵⁷ See for instance *Compañía del Desarrollo de Santa Elena, S.A. v The Republic of Costa Rica*, (ICSID Case No. ARB/96/1), related to a direct expropriation case, whereby the government of Costa Rica expropriated – by decree – important extension of land from a corporation with several US investors. In this case the tribunal focused on the discussion of the value that

In *Santa Elena v Costa Rica* the issue of direct expropriation was discussed in the context of the protection of the environment by means of a natural reserve. In 1978, Costa Rica issued an expropriation decree for Santa Elena. Costa Rica proposed to pay Santa Elena the sum of approximately USD 1,900,000¹⁵⁸ as compensation for the intended expropriation of the property. The Claimant, while not objecting to the expropriatory measure, did contest the price of the property,¹⁵⁹ and claimed approximately USD 40,337,750 as fair market value of the property.¹⁶⁰ In this case, the right of the Respondent to expropriate the property was not in dispute, neither was the size of the property.¹⁶¹ The arbitration tribunal limited its review to the issue of compensation and its calculation. In this context, the tribunal stated:

While an expropriation or taking for environmental reasons may be classified as a taking for a public purpose, and thus may be legitimate, the fact that the Property was taken for this reason does not affect either the nature or the measure of the compensation to be paid for the taking. That is, *the purpose of protecting the environment for which the Property was taken does not alter the legal character of the taking for which adequate compensation must be paid.* The international source of the obligation to protect the environment makes no difference.¹⁶²

The tribunal worked on the basis of a decree of direct expropriation, which otherwise seemed to comply with all the other conditions of lawful expropriation under international law. Arguably, in this case the government made use of its prerogative of eminent domain for a public purpose (as is the protection of the environment). Similar measures may be taken under different methods such as the exercise of the prerogative to regulate or police power. Yet, this does not mean that the outcome would have been different. If

should be paid by the government of Costa Rica in favour of the investor. See also *Libyan American Oil Company (Liamco) v the Government of the Libyan Arab Republic, Ad Hoc Tribunal (Draft Convention on Arbitral Procedure, ILC 1958), Award 1977*; where the sole arbitrator considered the case of nationalizations of concessions for the exploration and exploitation of oil fields in Libya. In this case the arbitrator concluded that *restitutio in integrum* was impossible, and expressed that the investor was entitled to indemnification for what was considered a lawful nationalization of assets.

¹⁵⁸ The sum resulted from an appraisal of the Property conducted by one of its agencies less than one month earlier the Government approved the Decree (14 April 1978). See *Compañía del Desarrollo de Santa Elena, S.A. v The Republic of Costa Rica, (ICSID Case No. ARB/96/1), Final Award, February 17, 2000, para. 17.*

¹⁵⁹ The Claimant advised for approximately USD 6'400.000. This amount was the result of an appraisal of the property by CDSE and conducted by the Chief Appraiser of the Banco de Costa Rica in February 1978, three months prior to the expropriatory Decree. *Santa Elena v Costa Rica*, para.19.

¹⁶⁰ See *Santa Elena v Costa Rica*, para. 38.

¹⁶¹ See *Santa Elena v Costa Rica*, para. 55.

¹⁶² *Compañía del Desarrollo de Santa Elena, S.A. v The Republic Of Costa Rica, (ICSID Case No. ARB/96/1), Final Award, February 17, 2000, para. 71.*(emphasis added)

anything, the tribunal would have undertaken further scrutiny of the governmental measure. The next section discusses such situations under the scope of indirect expropriation.

3.5.2 Indirect Expropriation

For a long time there was no definition of indirect expropriation expressly stated in IIAs, and it is referred to 'often interchangeably, as regulatory, constructive, consequential, disguised, de facto or creeping.'¹⁶³

Currently indirect expropriation has become subject of extensive discussion among scholars and practitioners. Professor Wälde once referred to the ever-increasing taking of property via regulatory measures as 'regulatory risk' in addition to 'political risk'¹⁶⁴. An indirect expropriation does not necessarily involve a physical taking of property or transfer of ownership, but may still result in the effective loss of management, use or control, or a significant depreciation of the value, of the assets of a foreign investor.¹⁶⁵ There exist difficulties in asserting a proper definition of indirect expropriation, especially when it comes to differentiating it from 'non-compensable regulation'¹⁶⁶. Therefore, the 'fuzzy' character of indirect expropriation contributes to the lack of consensus regarding the conditions necessary to distinguish an act of indirect expropriation from a regulation. In any case, the specific facts of each case and its context will provide the necessary elements to decide whether an indirect expropriation has occurred. Further, as illustrated in Section 3.4.2.3 there are increasing efforts to provide a framework of analysis to guide the assessment of investment tribunals. This work aims to contribute in distinguishing legitimate regulation from indirect expropriation, through the

¹⁶³ W. Michael Reisman and Sloane Robert D., "Indirect Expropriation and its Valuation in the BIT Generation" *British Yearbook of International Law* (2004), 119. In regard the issue of creeping expropriation, it should be briefly explained that: '[b]ecause of their gradual and cumulative nature, creeping expropriations also render it problematic, perhaps even arbitrary, to identify a single interference (or failure to act where a duty requires it) as the 'moment of expropriation.' See *ibid.*, 125.

¹⁶⁴ Wälde and Dow, "Treaties and Regulatory Risk in Infrastructure Investment. The Effectiveness of International Law Disciplines versus Sanctions by Global Markets in Reducing the Political and Regulatory Risk for Private Infrastructure Investment"; Wälde and Kolo, "Environmental Regulation, Investment Protection and 'Regulatory Taking' in International Law".

¹⁶⁵ United Nations Conference on Trade and Development (UNCTAD), "International Investment Agreements: Key Issues Volume I", 235.

¹⁶⁶ OECD Directorate for Financial and Enterprise Affairs, "'Indirect Expropriation' and the 'Right to Regulate' in International Investment Law".

analysis of the police power of States. In so doing this work relies largely on the methodology proposed by Professor Brigitte Stern,¹⁶⁷ who observes that the definitions of indirect expropriation in FTAs and BITs are diverse and cover several terms, expressing that the measure at issue – or its effects – should be equivalent to a direct expropriation:

In light of these various expressions, it is particularly difficult to determine whether or not either the measure or the effect must be rigorously equivalent to an expropriation, or if the degree of similarity can be more or less important.¹⁶⁸

While some authors suggest that the nature of the industry plays an important role in the determination that an indirect expropriation has occurred,¹⁶⁹ this work attempts a further step into the nature of the natural resource – water resources in this case – because it relates to many industries in diverse manners.

Indirect expropriation is linked to various types of regulatory measures, actions or legislation adopted by governments, which have an effect over investor's property, material or immaterial. Arguably, beyond that notion of indirect expropriation - which makes it formally distinct from direct expropriation - there is no widely accepted definition of indirect expropriation.¹⁷⁰ Regardless of the formal differences between indirect and direct expropriation, the real difficulty lies in distinguishing indirect expropriation from legitimate regulation, which does not entitle payment of compensation.

The arbitral tribunal of the *Norwegian Shipowners Case* undertook the task to determine the existence of an indirect expropriation back in 1922.¹⁷¹ The tribunal disagreed with the defendant's arguments – the US – that international law did not protect contractual rights, and concluded that the

¹⁶⁷ Stern, "In Search of the Frontiers of Indirect Expropriation". Wälde and Kolo, propose a similar criteria, considering US takings jurisprudence. See Wälde and Kolo, "Environmental Regulation, Investment Protection and 'Regulatory Taking' in International Law" 826.

¹⁶⁸ Stern, "In Search of the Frontiers of Indirect Expropriation", 34.

¹⁶⁹ Wälde and Kolo, "Environmental Regulation, Investment Protection and 'Regulatory Taking' in International Law" 487.

¹⁷⁰ See Burns H. Weston, "'Constructive Takings' under International Law: A Modest Foray into the Problem of 'Creeping Expropriation'" *Virginia Journal of International Law* 16, no. 1 (1975); Dolzer, "Indirect Expropriations: New Developments?"; Stern, "In Search of the Frontiers of Indirect Expropriation"; Anne Hoffmann, "Indirect Expropriation", in *Standards of Investment Protection*, ed. August Reinisch (Oxford; New York: Oxford University Press, 2008).

¹⁷¹ *Norwegian Shipowners' Claims (Norway) v United States of America Permanent Court of Arbitration Award of the Tribunal, October 13 1922, 11-18.*

series of measures adopted by the US (affecting the contractual rights of the Norwegian shipbuilders) constituted an indirect expropriation. Later, in *Biloune v Ghana*, the *ad-hoc* arbitral tribunal considered that a series of actions and omissions by the host State constituted ‘constructive expropriation’ of contractual rights, unless the respondents could show through ‘persuasive evidence *sufficient justification for these events*’¹⁷² (emphasis added).

The tribunal in *Pope & Talbot v Canada*¹⁷³ considered the *level of interference* in determining whether an indirect expropriation had occurred or not. In *Metalclad v Mexico*,¹⁷⁴ the tribunal focused on *the effects* of the measure; in this case, the NAFTA tribunal stated that a deprivation of the whole or a significant part of the to-be-expected economic benefits of the property ‘even if not to the obvious benefit of the host State’, constitutes an indirect expropriation.

Recently, the arbitration tribunal in *Suez & Vivendi v Argentina*¹⁷⁵ considered the following definition of indirect expropriation:

In case of an indirect expropriation, sometimes referred to as a “regulatory taking,” host States invoke their legislative and regulatory powers to enact measures that *reduce the benefits* investors derive from their investments but without actually changing or *cancelling investors’ legal title to their assets or diminishing their control over them*.¹⁷⁶ (emphasis added and footnote omitted).

The test applied by the tribunal in *Tecmed v Mexico* stated that:

[...] if due to the actions of the Respondent, *the assets involved have lost their value or economic use for their holder and the extent of the loss*. This determination is important because it is one of the main elements to distinguish, from the point

¹⁷² See *Biloune and Marine Drive Complex Ltd v Ghana Investments Centre and the Governments of Ghana*, UNCITRAL *ad hoc* Tribunal, Award on Jurisdiction and Liability of 27 October 1989, 95 ILR 183, 209.

¹⁷³ *Pope & Talbot v. Canada, Interim Award (NAFTA)*, 26 June 2000.

¹⁷⁴ *Metalclad Corp. v Mexico, Arb (AF)/97/1*, 5 ICSID Reports, 209, para. 103

¹⁷⁵ *Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A. v Argentina*, ICSID Case No. ARB/03/19, and *AWG Group v Argentina (under UNCITRAL Rules)*, Decision on Liability, July 30, 2010.

¹⁷⁶ *Suez, Sociedad General de Aguas de Barcelona, S.A. and Vivendi Universal, S.A. v Argentine Republic*, (ICSID Case No. ARB/03/19), Decision on Liability, 30 July 2010, (France/Argentina and Spain/Argentina BITs), para. 132. (The tribunal referred to Dolzer, Schreuer, as well as Reinisch for the definition of indirect expropriation. See also a different approach as adopted by the tribunal in *Impregilo v Pakistan*, where arbitrators declined jurisdiction on the basis –among others – that refusal to pay under a Contract do not constitute an exercise of the police power of the State, hence such action does not fall within the scope of the investment treaty. See *Impregilo S.p.A. v. Islamic Republic of Pakistan*, (ICSID Case No. ARB/03/3), Decision on Jurisdiction, 22 April 2005, para 278.

of view of an international tribunal, between a regulatory measure, which is an ordinary *expression of the exercise of the State's police power that entails a decrease in assets or rights, and a de facto expropriation that deprives those assets and rights of any real substance*¹⁷⁷ (emphasis added).

Likewise in the tribunal in *Impregilo v Argentina* explains:

Expropriation is to be distinguished from less far-reaching measures which regulate or restrict the right to use property. Such measures may also have serious economic effects for the investor but do not constitute expropriation. However, there are borderline cases where restrictions on the use of property go so far as to leave the investor with only a nominal property right. This could in appropriate cases be regarded as indirect expropriation.¹⁷⁸

There appears to be substantial differences in the definitions of indirect expropriation proposed by the tribunals in *Metalclad* and *Suez & Vivendi* on one hand, and the tribunals in *Tecmed* and *Impregilo* on the other hand. The former appears to adopt a *sole effects* approach to the cases at hand, whereas the former - and an important number of awards - adopt a more nuanced approach, where the effects of the measures over the investor and the purpose of the governmental measure are weighted against each other.

Professor Dolzer points out that there is no doubt about the impact that a regulatory measure may have on the 'owner's ability to use and enjoy his property'; the discussion, however, should rather concentrate on 'whether the focus on the effect will be the only and exclusive relevant criterion'.¹⁷⁹

[T]he *Metalclad* definition deserves to be quoted not just because it reflects a recent broad effort to state the law, but also because it highlights a distinct line of thinking. Remarkably, the *Metalclad* Award laid down its definition without reference to any previous decision or codificatory norm, focusing strongly and exclusively on the effect of the governmental measure on the alien owner.¹⁸⁰

Professor Stern suggests that one approach would be to analyse a measure against the definition of indirect expropriation set forth in *Metalclad* because such a definition seems to set a lower threshold to find indirect expropriation

¹⁷⁷ *Técnicas Medioambientales Tecmed, S.A. v. United Mexican States*, (ICSID Case No. ARB(AF)/00/2), Award of 29 May 2003, 19 ICSID Rev. —FILJ 158 (2004), para. 115.

¹⁷⁸ *Impregilo S.p.A. v Argentine Republic*, (ICSID Case No. ARB/07/17), Award, June 21, 2011, para. 270.

¹⁷⁹ Dolzer, "Indirect Expropriations: New Developments?", 79. See the opinion of the Arbitral tribunal in *Chemtura Corporation v Canada*, Ad hoc—UNCITRAL (NAFTA), Award signed 2 August 2010, para. 248.

¹⁸⁰ *Ibid.*, 72, 79.

than the threshold for a direct expropriation.¹⁸¹ This could mean that the body of arbitral awards similar to the *Metalclad* award may be adopting an approach to finding an indirect expropriation which is less tolerant of governmental intervention than a direct expropriation would be. The approach adopted by the arbitral tribunal in *Pope & Talbot* found that the word ‘tantamount’ used in Article 1110 of the NAFTA cannot mean more than expropriation, thus making both actions equivalent as regards the effects of the governmental measure.

In the case of the *Metalclad* approach, the intent of the host State is not relevant to the analysis; therefore, the tribunal did not need to engage in further considerations as to the purpose of the measure adopted by the State, thereby adopting the ‘sole effects’ approach to regulatory measures.¹⁸² In this regard, there is the view, that the *Metalclad* tribunal suggested a list of regulatory measures with an expropriatory effect, rather than a comprehensive definition of indirect expropriation.¹⁸³

Scholars and practitioners have expressed concern that the international arbitration regime may trump the regulatory activity of States in areas such as environmental protection, water management and services, health and safety, public policy, etc.¹⁸⁴ On the relationship between international investment law and international environmental law, Professor Sands, commenting on the *Metalclad* approach to regulatory measures, asserts:

The effect of the Award is to open the door to “tantamount to expropriation claim” on many environmental regulations (or other national regulations intended to protect human health), including some adopted pursuant to international treaty

¹⁸¹ Professor Stern identifies two approaches to distinguish an indirect expropriation from a regulation; both of them are related to the level of interference with the property rights of the investor. One approach considers that indirect expropriation entails a lesser interference with the investment than a direct expropriation. The second approach contends that indirect expropriation has similar results as direct expropriation. See Stern, "In Search of the Frontiers of Indirect Expropriation", 39.

¹⁸² See also *Southern Pacific Properties (Middle East) Ltd v Arab Republic of Egypt (S.P.P. v Egypt)*, ICSID Case No ARB/84/3, Award, 20 May 1992, at para. 227; *Compañía de Aguas del Aconquija S.A. and Vivendi Universal v Argentine Republic*, ICSID Case No. ARB/97/3, Award, 20 August 2007, para. 7.5.21.

¹⁸³ Jan Paulsson as cited in Kinnear, Bjorklund, and Hannaford, *Investment Disputes under NAFTA. An Annotated Guide to NAFTA Chapter 11*, 1110-21. In view of Bjorklund *et al*, such an interpretation by Paulsson and Douglas does not consider that *Metalclad* concentrates on the adverse effects of the measure over the interest of the investor.

¹⁸⁴ Muñoz, "La administración del agua y la inversión extranjera directa ¿Cómo se relacionan?"; Van Harten, *Investment Treaty Arbitration and Public Law*; Mann, "The Right of States to Regulate and International Investment Law"; Mann, "Implications of International Trade and Investment Agreements for Water and Water Services: Some Responses from Other Sources of International Law".

obligations (such as the 1992 Convention on Biological Diversity or the 1971 Wetlands Convention).¹⁸⁵

The relevance of regulatory activity has become central to the analysis of indirect expropriation. While the police power of States has never been questioned under international investment law, its exercise has had consequences for the State's ability to exert regulatory activity with an effect on the scope of the regulatory measure. Therefore, even when the decision is adopted on a case by cases basis, investors and host States may welcome certain criteria that allow them to predict – to a certain extent – the possible outcome of their dispute.

Having illustrated that States are seeking to reinforce their regulatory prerogatives, and that arbitral tribunals appear to be deferring to such prerogatives, one could conclude that an approach that considers the effects of the measure over the investment, the public purpose of the measure, and the element of good faith on the part of the State, constitute the starting point to draw a dividing line between regulation and indirect expropriation.¹⁸⁶ This approach will be advanced in Section 3.7 and fully developed in Chapter IV. Before turning to it, this work continues a revisit to the police power, in the context of international investment law and arbitration.

3.6 Analysis of the Police Power in the Contexts of International Investment Law and International Investment Arbitration

3.6.1 The Police Power in International Investment Law

Several international instruments have addressed the regulatory prerogatives of States within the scope of expropriatory measures. In fact, the issue is as old as is the protection of aliens and their property under customary international law; and while some international instruments have recognised

¹⁸⁵ Philippe Sands, "Litigating Environmental Disputes: Courts, Tribunals and the Progressive Development of International Environmental Law", (paper presented at the Global Forum VII on International Investment, Paris, 27-28 March, 2008), 10.

¹⁸⁶ This work suggests that the object – in this case water resources – and its regulatory framework, which the measure is aimed, may provide relevant insights to arbitral tribunals. This is because most societal interests enjoy different forms of property rights and regulation, attending not only its physical characteristics but also the role they play in a contextual and temporal setting.

the police power, some others have attempted to extend the protection against its exercise.

The *European Convention of Human Rights* of 1950 incorporated Protocol 1 to its main text in 1952. Article 1 provides:

Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.

The preceding provisions shall not, however, in any way impair the right of a State to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties.¹⁸⁷

Protocol 1, while recognising the right to a peaceful possession of property, also recognises the eminent domain of States to expropriate property in the public interest and – while not expressly provided for – upon payment of compensation. Such an obligation can be derived from the provisions of national law and customary international law. Moreover, the second paragraph of Article 1 seems to further recognise the police power of States to regulate the enjoyment of private property subject to the public interest. This prerogative, however, is not conditioned on the payment of compensation.¹⁸⁸

Within the framework of customary international law, the ILC in its Eleventh Session on State Responsibility, expressed with regard to the protection of the property of aliens:

The possibility of the State incurring international responsibility is remote; and it is equally so when the State destroys property belonging to aliens for reasons of *public safety or health*, provided that the circumstances are ones in which the notion of *force majeure* or state of necessity is recognized by international law. In international jurisprudence *exemption from responsibility has also been based on the "police power" of the State*.¹⁸⁹

In 1969, the Harvard Law School undertook the project of revising the *Draft Convention on Responsibility of States for Damage Done in Their Territory to the*

¹⁸⁷ Convention for the Protection of Human Rights and Fundamental Freedoms (Paris: 1950) and Protocol to the Convention for the Protection of Human Rights and Fundamental Freedoms as amended by Protocol No. 11 (Paris: 1952)

¹⁸⁸ See OECD Directorate for Financial and Enterprise Affairs, "Indirect Expropriation" and the "Right to Regulate" in International Investment Law "

¹⁸⁹ United Nations, "Yearbook of the International Law Commission. Volume II", (1959), para 43. (Emphasis added)

Person or Property of Foreigners (Harvard Draft Convention), prepared in 1929 by Professor Borchard for the Harvard Research in International Law. The developments of international law, however, demanded a deeper re-examination of the whole issue, which was entrusted to Professors Sohn and Baxter. This work recognised the exercise of the police power of the State, under the scope of uncompensated *takings*. Article 10 (5) *allows for taking of property or the deprivation of use or enjoyment thereof*:

An *uncompensated taking of property* of an alien or a deprivation of the use or enjoyment of property of an alien which results from the execution of the tax laws; from a general change in the value of currency; from the action of the competent authorities of the State in the maintenance of public order, health, or morality; or from the valid exercise of belligerent rights; or is otherwise incidental to the normal operation of the laws of the State shall not be considered wrongful.¹⁹⁰

Scholars and jurists have incessantly referred to the Harvard Draft Convention, to point out that regulatory measures adopted to maintain the public order health or morals are exempted from the payment of compensation.¹⁹¹ The approach adopted in Article 10 suggests that a breach of the obligation of States to refrain from taking or depriving aliens of their property is otherwise justified by circumstances 'which are universally recognized as properly calling for such action'.¹⁹² In such cases, taking expropriatory measures do not entail compensation nor does the State bear international responsibility, because of the exception contained in Article 10 (5) rather than the inexistence of a breach. Contrary to the approach adopted by the Harvard Draft Convention, this thesis contends that regulatory measures aimed to protect the general welfare or other societal values could be distinguished from takings or acts of indirect expropriation. In doing so, this thesis proposes a framework of analysis for drawing a dividing line between regulations and takings.

Article 3 of the 1967 *OECD Draft Convention on the Protection on Property* provides a set of comments relevant to the consideration of the police power within the scope of takings of property. Article 3 stipulates that a taking may be lawfully undertaken upon compliance of the requirements stated under

¹⁹⁰ Louis B. Sohn and R. R. Baxter, "Responsibility of States for Injuries to the Economic Interests of Aliens" *American Society of International Law* 55(1961), 553-54.

¹⁹¹ In addition, for the measure to be deemed lawful, the State adopting the measure must observe certain conditions: i) non-discrimination, ii) non-denial of justice or adverse judgment, iii) no departure from the principles of justice as recognised by civilized nations, and iv) it is not an abuse of power or covert act of deprivation. See *ibid.* (Emphasis added).

¹⁹² *Ibid.*

international law: i) public interest, and due process, ii) non-discrimination, and not contrary to undertakings previously given, and iii) payment of compensation. The annotations to this provision, however, recognise the right of States to regulate in the public interest whenever the regulatory measure does not amount to a disguised act of expropriation.¹⁹³ Annotation 3(a) states the recognition of the sovereign right of States to deprive aliens of their property. However, for such a deprivation or interference to be considered as a deprivation of property, would be determined by the duration and extent of the measure.¹⁹⁴

According to Yannaca-Small, the *Restatement Third of the Foreign Relations Law of the United States* aims to provide some guidance for the distinction between a regulation and an indirect expropriation:

[...] a State is not responsible for loss of property or for other economic disadvantage resulting from bona fide general taxation, regulation, forfeiture for crime, or other action of the kind that is commonly accepted as within the police power of States, if it is not discriminatory [...].¹⁹⁵

The MAI also contemplated the exercise of the police power of States, in Article 3 (right to regulate) of the draft project:

A Contracting Party may adopt, maintain or enforce any measure that it considers appropriate to ensure that investment activity is undertaken in a manner sensitive to health, safety or environmental concerns, provided such measures are consistent with this agreement.¹⁹⁶

In connection with this provision, the interpretative note to Article 5 on expropriation,¹⁹⁷ states:

¹⁹³ OECD Directorate for Financial and Enterprise Affairs, "Indirect Expropriation" and the "Right to Regulate" in International Investment Law", 8. See 4 (a) "[...]By using the phrase 'to deprive...directly or indirectly ...' in the text of the Article it is, however, intended to bring within its compass any measures taken with the intent of wrongfully depriving the national concerned of the substance of his rights and resulting in such loss (e.g. prohibiting the national to sell his property or forcing him to do so at a fraction of the fair market price). OECD Draft Convention on Foreign Property, 12 October 1967.

¹⁹⁴ See Annotation to Article 3 A(1)(a) and A(1)(b). <http://www.oecd.org/dataoecd/35/4/39286571.pdf>

¹⁹⁵ OECD Directorate for Financial and Enterprise Affairs, "Indirect Expropriation" and the "Right to Regulate" in International Investment Law", 8. See "Restatement of the Law Third, the Foreign Relations of the United States," American Law Institute, Volume 1, 1987, Section 712, Comment: g.

¹⁹⁶ Organisation for Economic Cooperation and Development, The Multilateral Agreement on Investment, (Report by the Chairman to the Negotiating Group), DAF/MAI(98)17, 4 May 1998.

¹⁹⁷ Proposed by the Chairman in the package on Labour and Environment

This Article is intended to incorporate into the MAI existing international legal norms [...] compensation for an expropriatory taking without regard to the label applied to it, even if title to the property is not taken. It does not establish a new requirement that Parties pay compensation for losses which an investor or investment may incur through regulation, revenue raising and other normal activity in the public interest undertaken by governments. It is understood that default by a sovereign State subject to rescheduling arrangements undertaken in accordance with international law and practices is not expropriation within the meaning of this Article.¹⁹⁸

It seems paradoxical, in the context of capital exporting/capital importing country negotiations, that efforts to recognise the States' prerogative to regulate are mostly included in multilateral agreements as opposed to bilateral ones. For instance, the failure of the MAI negotiations, which was partly attributed to the – allegedly – disadvantageous position of capital importing countries in the negotiations, contain provisions that were not contemplated in BITs; and yet, would have possibly contributed to more consistent arbitral awards. As noted earlier,¹⁹⁹ new BITs and FTAs appear to adopt the traditional approach of customary international law in regard to States' police power and the right to regulate. The US and Canada's Model BITs have followed this approach as well as other recently negotiated IIAs.²⁰⁰ Numerous agreements of the second generation stipulate specific situations in which the exercise of regulatory prerogatives of States will not constitute indirect expropriation, and other governmental measures would be scrutinised, considering the effects of the measure, the expectations of the investor and the character of the governmental measure. The police power *strictu sensu* and the prerogative of states to regulate, *lato sensu*, respectively, seem increasingly subjected to different standards of review by arbitral tribunals, as investment agreements continue to include specific provisions allowing for increased deference to the exercise of the police power of states.²⁰¹

¹⁹⁸ Article 5, fn. 5. Available at <http://www1.oecd.org/daf/mai/pdf/ng/ng9817e.pdf>, last visited November 2012. See the comments on this and the abovementioned treaties in OECD Directorate for Financial and Enterprise Affairs, "Indirect Expropriation" and the "Right to Regulate" in International Investment Law".

¹⁹⁹ See Section 3.4.2.3

²⁰⁰ This has been addressed in Section 3.3.3.

²⁰¹ United Nations Conference on Trade and Development (UNCTAD), "EXPROPRIATION: A Sequel. UNCTAD Series on Issues in International Investment Agreements II", 13. One could argue that such deference toward the police power of states have been always part of customary international law; however, many IIAs have adopted specific provisions in order to prevent or to assist tribunals in considering claims of indirect expropriation. See Section 3.4.2.3.

Likewise, these agreements also provide guidelines to address measures that could potentially be expropriatory. This trend shows the relevance of the notion of the police power and the importance of its assessment for the legitimacy and consistency of the investment arbitration regime.

3.6.2 The Police Power Doctrine in Investment Arbitration

The investor-State dispute settlement mechanism has been invoked in 514 known cases through to the end of 2012. The highest number of investment disputes – 58 in one year - has been recorded for 2012.²⁰² With more than 3000 IIAs in force,²⁰³ the negotiators of the provisions contained in these instruments could not have foreseen many of the interpretive issues that would come under the scrutiny of arbitral tribunals. The issue of interpretation of IIAs is, therefore, essential to the development of investment arbitration because it has an effect on the consistency and predictability of investment regime as a whole. That said, however, it is important to recall that an in-depth analysis of treaty interpretation under Articles 31 and 32 of the *Vienna Convention on the Law of Treaties*, is beyond the scope of this work.²⁰⁴ The question that arises in the context of predictability and consistency is whether they should be looked at from a systemic perspective or whether they could be achieved under a case specific approach, following a common analytical framework. The question that follows is whether there is really conceptual difference between these two approaches. Professor Reisman, for instance, advocates for a case-specific analysis, under the argument that arbitral tribunals are granted law-applying faculties, rather than law-making

²⁰² (UNCTAD), "World Investment Report 2013. Global Value Chains: Investment and Trade for Development.," xxi; United Nations Conference on Trade and Development (UNCTAD), "IIA Issues Note. Recent Developments in Investor- State Dispute Settlement (ISDS)" (Geneva: UNCTAD, 2013).

²⁰³ *Ibid.*

²⁰⁴ For authoritative writings in the area of treaty interpretation see Campbell McLachlan, "The principle of systemic integration and Article 31(3) (C) of the Vienna Convention" *International and comparative law quarterly*. 54, no. 2 (2005); Diane A. Desierto, "Conflict of Treaties, Interpretation, and Decision-Making on Human Rights and Investment During Economic Crises" *Transnational Dispute Management* 1(2013); William W. Burke-White and Andreas Von Staden, "Investment Protection in Extraordinary Times: The Interpretation and Application of Non-Precluded Measures Provisions in Bilateral Investment Treaties" *University of Pennsylvania Law School Public Law and Legal Theory Research Paper Series*, no. Research Paper No. #07-14 (2007); Bruno Simma and Theodore Kill, "Harmonizing Investment Protection and International Human Rights: First Steps Towards Methodology", in *International Investment Law for the 21st Century Essays in Honour of Christoph Schreuer*, ed. Ursula Kriebaum Christina Binder, August Reinisch, and Stephan Wittich (Oxford, New York: Oxford University Press, 2009); J. Romesh Weeramantry, *Treaty Interpretation in Investment Arbitration* (Oxford, U.K.: Oxford University Press, 2012).

prerogatives.²⁰⁵ This thesis asserts that in order to achieve some level of consistency and predictability, in the context of the legitimate exercise of the police power, arbitral tribunals should follow a framework of analysis common to all investment disputes. In this case such framework seeks to distinguish a legitimate regulation from compensable expropriation.

This section analyses several arbitral awards addressing the police power of States or their regulatory prerogatives. The issue is relevant to the exercise of regulatory prerogatives over water management, as the use and enjoyment of water resources is increasingly becoming subject to regulation due to stress and competitive use of the resource. Therefore, while the hydrological cycle becomes more *unpredictable*, it is *predictable* that legal rights over water resources may become *insecure*. Note that the notion of predictability in this case plays a relevant role in the framework of analysis that will be discussed in the next chapter, as it is linked to the issue of legitimate expectations.

In *Chemtura v Canada*,²⁰⁶ a case under the NAFTA, the tribunal recognised the validity of the police power doctrine as a defence for the decision of the Canadian government to phase out all agricultural application of the chemical lindane. The tribunal in this case expressly stated that regardless of the issue of deprivation, there was no expropriation since Canada had lawfully exercised its police powers in aiming at protecting the public health and the environment.

The tribunal found no substantial deprivation of the investment and thus no indirect expropriation. It went further, however, in spelling out a set of conditions under which the exercise of the police power would be deemed only a legitimate regulation and not an act of expropriation. The tribunal concluded that, even in the event that there was a substantial deprivation of the investment; there would be still no expropriation because:

Irrespective of the existence of a contractual deprivation, the Tribunal considers in any event that the measures challenged by the Claimant constituted a valid

²⁰⁵ Professor Michael Reisman observes: 'Glamis Gold, caught between the requirement of rendering a 'case-specific' decision, which it accepted as its mandate and the siren of 'systemic implications', invented some new, intermediate categories: 'a modicum of awareness of the system as a whole' and 'greater contextual awareness'. Wholly apart from the question of whether a single investment tribunal should presume to try to introduce constitutive changes, this particular change purports to import into arbitral law-applying a variable which is central and unique to law-making and law-terminating.' See Reisman, "'Case Specific Mandates' versus 'Systemic Implications': How Should Investment Tribunals Decide? - The Freshfields Arbitration Lecture", 149.

²⁰⁶ *Chemtura Corporation v Canada, Ad hoc—UNCITRAL (NAFTA)*.

exercise of the Respondent's police powers. As discussed in detail in connection with Article 1105 of NAFTA, The PMRA took measures within its mandate, in a non-discriminatory manner, motivated by the increasing awareness of the dangers presented by lindane for human health and the environment. A measure adopted under such circumstances is a valid exercise of the State's police power and, as a result does not constitute an expropriation.²⁰⁷

While a regulatory measure is always the exercise of the police power of the government, the notion has not been always expressly articulated in the body of arbitral awards, even when the doctrine inspired the decision. In *Methanex v United States*, for instance, the tribunal stated:

[...] as a matter of general international law, a non-discriminatory regulation for a public purpose, which is enacted in accordance with due process and, which affects, inter alios, a foreign investor or investment is not deemed expropriatory and compensable unless specific commitments had been given by the regulating government to the then putative foreign investor contemplating investment that the government would refrain from such regulation.²⁰⁸

As suggested earlier in this Chapter, the tribunal's reading of Article 1110 of the NAFTA has been subject of analysis and criticism.²⁰⁹

In *Saluka v Czech Republic*,²¹⁰ the tribunal stated that the approach adopted by the arbitral tribunal in *Methanex v United States* is one that has been recognised under customary international law.²¹¹ Notwithstanding, it also warns that the adoption of the police power is not absolute and it is necessary to find a dividing line between regulation and expropriation:

International law has yet to identify in a comprehensive and definitive fashion precisely what regulations are considered "permissible" and "commonly accepted" as falling within the police or regulatory power of States and, thus, noncompensable. In other words, it has yet to draw a bright and easily distinguishable line between non-compensable regulations on the one hand and,

²⁰⁷ *Chemtura Corporation v Canada, Ad hoc—UNCITRAL (NAFTA), Award 2 August 2010*, para. 266.

²⁰⁸ *Methanex Corp. v. United States of America, Ad hoc—UNCITRAL (NAFTA), Final Award, 3 August 2005*, Part IV - Chapter D - Page 4, para. 7

²⁰⁹ See Chapter III, Section 3.3.4.

²¹⁰ *Saluka Investment BV (The Netherlands) v Czech Republic*.

²¹¹ The tribunal in this case made echo of previous Arbitral Awards: *Methanex Corp. v. USA, Final Award, 3 August 2005*, para. 410. See also *Too v. Greater Modesto Insurance Associates*, 23 *Iran U.S. Cl. Trib. Rep.* 378, para. 26; *S.D. Myers, Inc. v. Canada*, 40 *ILM* 1408, para. 281; *Lauder (USA) v. Czech Republic, Final Award, 3 September 2002*, para. 198; *Tecnicas Medioambientales Tecmed S.A. v. United Mexican States, ICSID Case No. ARB(AF)/00/2, 29 May 2003*, para. 119.

on the other, measures that have the effect of depriving foreign investors of their investment and are thus unlawful and compensable in international law.²¹²

Further in *Saluka*, the tribunal attributed such responsibility to the adjudicators to decide when, why and at what point a lawful regulatory measure, thus non-compensable, becomes 'in fact and effect' an unlawful expropriation on the basis of case by case analysis.²¹³

It is interesting to note that while the arbitral tribunal did not find the regulatory measure adopted by Czech Republic as expropriatory, it did find a breach of the fair and equitable treatment (FET) standard, considering elements directly linked to the exercise of the State's police power. It has been argued that arbitral tribunals may find a breach of FET in lieu of the expropriation standard.²¹⁴

In *Pope & Talbot v Canada*, the tribunal did refer to the police powers doctrine and stated that it should be analysed with special care.²¹⁵ In addressing the argument put forward by Canada that every regulation that is non-discriminatory falls outside the scope of Article 1110 of the NAFTA, the tribunal considered such an argument as going too far. According to the tribunal, a regulation within the exercise of the State's police powers could amount to creeping expropriation, and 'a blanket exception for regulatory measures would create a gaping loophole in international protections against expropriation'.²¹⁶ In a footnote to this paragraph, however, the tribunal clarifies that this would not mean to express that every 'regulatory restraint' can be compared to expropriation, emphasizing – apparently – the element relating to the degree of interference with the property.²¹⁷ Based on these assertions, the tribunal proceeded to determine whether the level of interference in the case at hand was significant. It is important to consider the wording used by the arbitration tribunal in both *Chemtura* and *Pope & Talbot* with the regard to the application and relevance of the element of deprivation. While the tribunal in *Pope & Talbot* based its analysis on the level of

²¹² *Saluka Investments BV (The Netherlands) v Czech Republic, Partial Award 17 March 2006*, para. 363

²¹³ *Ibid.* para. 264

²¹⁴ Lucy Reed and Daina Bray, "Fair and Equitable Treatment: Fairly and Equitably Applied in Lieu of Unlawful Indirect Expropriation?", in *Contemporary Issues in International Arbitration and Mediation: The Fordham Papers 2007*, ed. Arthur W. Rovine (Leiden; Boston: Martinus Nijhoff Publishers, 2008).

²¹⁵ *Pope & Talbot v. Canada, Interim Award (NAFTA) 26 June 2000*, para 99.

²¹⁶ *Ibid.* para 99.

²¹⁷ This additional element is also referred to in the Restatement of the Law Third Foreign Relations Law of the United States para. 712 comment (g) and note 6

deprivation of the property of the investor, the tribunal in *Chemtura* recognised and applied the doctrine of the police power of the State, 'irrespective of the existence of contractual deprivation'.²¹⁸

In this case, while the methodology applied by the tribunal did inquire into the level of deprivation, the tribunal nonetheless appears to adopt a standard of review that gives somewhat more deference to the exercise of the police power.

The elements of analysis used by the tribunal in *Chemtura v Canada* may serve as the basis of the proposed analytical framework for water related disputes that will be developed in the next chapter, and briefly addressed below.

3.7 A Framework of Analysis that Distinguishes Regulation from Indirect Expropriation as Applied to Water Resource Related Disputes

It was proposed above that in order to understand what a legitimate governmental measure is not, we must be clear about what indirect expropriation actually is. As has been observed in previous sections, however, a definition of indirect expropriation has not been fully developed in IIAs, nor has it been defined in international law. Only quite recently countries such as the US and Canada have addressed the issue closely in a new generation of BITs and FTAs, some of which are Models – hence only potentially an agreement –, some have been renegotiated and some are new. Indeed, these agreements attempt to provide guidelines to draw a dividing line between legitimate regulation – through the exercise of the police power – and indirect expropriation.

As elaborated throughout the Chapter, one could argue that arbitral tribunals have addressed the exercise of the police power in three ways:²¹⁹

- i) the *sole effects* approach, which implies the rejection of the police power altogether, with focus solely on the effects of the measure over the investment;

²¹⁸ See *Chemtura Corporation v Canada, Ad hoc—UNCITRAL (NAFTA), Award signed 2 August 2010*, para. 266.

²¹⁹ See for instance Caroline Henckels, "Indirect Expropriation and the Right to Regulate: Revisiting Proportionality Analysis and the Standard of Review in Investor-State Arbitration" *Journal of International Economic Law* 15, no. 1 (2012).

- ii) the police power as an exception, such an approach would thus suggest logically that an indirect expropriation has occurred, and that the police power constitutes an exception precluding wrongfulness. (This would mean to say that a regulatory measure constitutes a regulatory taking.)? It is debatable whether States are now departing from this view, as – for instance - Annex B 4 (a) of the 2004 US Model BIT seems to suggest.²²⁰
- iii) the analysis of the object and purpose, as well as the economic effects of the regulatory measure, which address the element of good faith and lawfulness of the exercise of the police power. (While such an approach would consider that a lawful regulation does not entail the payment of compensation, it also considers that such regulatory prerogative is not absolute, and that an unlawful exercise of the police power may be deemed to be expropriatory, and thus compensable).

A legitimate regulation, which is not a breach of obligation and requires proof of legality, is different from a regulatory measure that is illegal – because it constitutes a taking – but is exempted from responsibility due to imperative circumstances. Under the position that the exercise of the police power does not constitute an act of indirect expropriation, but rather a mere exercise of regulatory prerogatives not subject to compensation, the host State would be bound to show that its measure was a legitimate regulation.

The framework of analysis, proposed in the next Chapter, seeks to establish the dividing line between indirect expropriation and legitimate regulation, following the previous work carried out by several scholars.²²¹ In sum, this is a process for determining whether a regulatory measure that negatively affects a

²²⁰ US BIT Model 2004 Article 6 Expropriation, Annex B (4) (a).

²²¹ G. C. Christie, "What Constitutes a Taking of Property under International Law" *The British Yearbook of International Law* 38(1964); Weston, "'Constructive Takings" under International Law: A Modest Foray into the Problem of Creeping Expropriation"; Reisman and Sloane, "Indirect Expropriation and its Valuation in the BIT Generation." Stern, "In Search of the Frontiers of Indirect Expropriation"; Newcombe, "The Boundaries of Regulatory Expropriation in International Law"; OECD Directorate for Financial and Enterprise Affairs, "'Indirect Expropriation" and the "Right to Regulate" in International Investment Law". Recent work developed by UNCTAD on Expropriation and its approach to distinguish it from legitimate regulation available at [http://archive.unctad.org/en/docs/ unctaddiaeia2011d7_en.pdf](http://archive.unctad.org/en/docs/unctaddiaeia2011d7_en.pdf), last visited June 20, 2012. Fortier and Drymer, "Indirect Expropriation in the Law of International Investment: I know it when I see it, or Caveat Investor"; Matthew Porterfield, "International Expropriation Rules and Federalism" *Stanford Environmental Law Journal* 23, no. 3 (2004).

foreign investor was taken in a manner that is consistent with the Rule of Law. In other words, the dividing line between regulation and expropriation requires an evaluation of how, when, and why a regulation was adopted.

The previous sections have devoted a great deal of attention to the notions of sovereignty and police power, as a revisiting of the origin of States' regulatory prerogatives. The adoption of the police powers as a conceptual framework is of particular importance in the approach to water resources management since the protection of health, safety, and the environment may well be linked to the management of water resources. This thesis attempts a much closer or more specific look at the subject matter that could give rise to an investment dispute. In some cases, a water-related dispute may not address the issue of water resources directly. The arbitral tribunal in *Methanex v United States* did not focus on the relation of water-resource management to the production of methanol. Instead, the claimed expropriation focused on whether or not a regulatory measure can be justified if taken for the protection of the environment more generally. In other words, this case may have been a failed opportunity to justify a water quality related regulatory measure as non-expropriatory.

The reason for such a line of inquiry, namely water resources specifically, is because water is a unique and special natural resource whose physical and regulatory characteristics require a distinct approach that may yield very different outcomes (in the context of expropriation) from non-water-related regulatory measures. The reasoning for such a water-specific approach is based on the properties of water and is not necessarily political in nature. This means that water-related measures should enjoy a *prima facie* presumption of legality and legitimacy under international law (in other words, the uniqueness of water and its relation to the analysis of expropriation are not mere policy choices).

The criteria for the framework of analysis proposed in Chapter IV will consider a three-fold analysis: i) a first stage addressing firstly the nature of property rights/entitlements in water and secondly the definition of investment, which inquires whether such property rights constitute an investment under protection of the investment agreement. This first stage is followed by two further stages of analysis, partly following the approach of Professor Stern ii) a second stage quantitative, looking at the level of deprivation over the investment, and iii) third stage qualitative, which – in turn – includes various

elements aiming to determine the nature and legitimacy of the governmental measure, namely public interest, non-discrimination, due process and legitimate expectations.

CHAPTER 4

A FRAMEWORK OF ANALYSIS

4.1 Introduction

This Chapter is developed on the basis of the prerogative of States to exercise their police power and will be pursued in the context of hypothetical investment disputes arising from the management of water resources.

It is not new to public international lawyers that international agreements may limit the freedom of States to exercise their full and absolute sovereignty. Such a limitation is not to be seen as a negative effect of the investment treaty. Rather it may be a consequence of a signatory State's decision to enter into an agreement that creates obligations towards another State and the beneficiaries of such obligations, in this case foreign investors. After all, it is not possible to foresee every potential challenge that parties to an agreement may face during the life of the agreement. Such challenges could result from unforeseen, abrupt and sudden changes in the circumstances of the parties e.g. the Argentinean financial crisis of 2001-2002. Other challenges could be the result of slow and evolutionary changes, which may require actions by States that have both large and small-scale effects in this case, on foreign investors and/or host States. In many cases, these investors may have failed to see the signals of change and expect, at times unreasonably, that legal frameworks remain static. An example of such a case – and of particular interest in the context of this work – is increasing hydrological variability, which may pose new commercial risk on investors' expectations regarding water availability.

Arbitral tribunals assessing water resource-related claims may fail to consider the specific nature of the subject matter at hand, namely water resources. This could mean - for the host State - that the purpose of the measure and the long-term sustainability of the water resource could be put in danger. As a result, the risks and costs related to water uncertainty would be borne solely by the host State and its citizens.

This study intends to answer whether, due to the special nature of water resources (physical, social and economic) investment tribunals should specifically address water resources. Chapter II's *prima facie* conclusion is that water is special, the question that follows is whether this has implications for the standard of review applied by investment tribunals and whether such

standard of review should be more deferential to the issue of water resources. As stated above, the measures adopted by host States, under their police power, will be approached in the context of an indirect expropriation claim. In order to draw the line between legitimate regulation – that is the result of the exercise of the police power of States – and unlawful indirect expropriation, through a scrutiny of such police powers, this Chapter will compile and instrumentalise a framework which focuses on the elements of scrutiny required for the assessment of claims of indirect expropriation. These are elements of analysis that have been long discussed in the context of international investment law, and which serve to examine the extent and nature of the regulatory measure under the police power of the State. This thesis intends to add to the existing literature on indirect expropriation, the incorporation of factors specific to claims of indirect expropriation of water resources within the analytical framework considered below.

Chapter III revisited the police power from various perspectives, but suggested that its essence, as embraced by customary international law, has been mostly nurtured and developed by the United States (US) tradition. The police power, however, does not constitute a ‘blanket exception’ from State responsibility for a breach of international obligations,¹ and it ought to be scrutinized to determine whether the effects and nature of a regulatory measure, actually constitute an expropriatory one.

Embedded in the proposed framework of analysis is the incorporation of a standard of review that focuses on water resources, as a sector specific analysis. Focus on the issue of water resources rather than the investment as a whole – when water rights have been affected – provides distinctive insights into the exercise of the police power, such insights stem from the special nature of water resources, which in turn shape the nature of the property rights under examination.

The next two sections briefly address the issue of indirect expropriation *versus* regulation (Section 4.2), with emphasis on the potential water measures likely to be adopted by a host State (Section 4.3). Section 4.4 introduces a three-fold analytical framework, which aims to assist arbitrators in drawing a line between legitimate regulation and indirect expropriation. This framework addresses first whether there exists a property right in water (Section 4.4.1),

¹ As illustrated by the tribunal in *Pope & Talbot v. Canada, Interim Award (NAFTA) 26 June 2000*, para.99.

and if so whether such property right is subject to protection under an investment agreement, *i.e.* whether it constitutes an investment under that agreement, and it is thus protected (Section 4.4.2). In practice, the first stage of analysis takes place prior to the analysis of the merits of the case, when the tribunal assess its own jurisdiction, hence the first stage concludes when the tribunal determines that a property right exists and constitutes an investment subject to protection under an IIA. The second stage of analysis (Section 4.4.3) comes into play to analyse the level of deprivation that a water-related measure is likely to exert over the investor's rights/interests. Section 4.4.4 presents the third stage (third fold) of analysis, introducing several elements addressing the nature of the regulatory measure, namely i) the public interest of the measure, ii) the due process under which the measure was carried out, iii) the potential discriminatory nature of the measure, and iv) the legitimate expectations of the investor. Finally Section 4.5 offers some preliminary conclusions of this work.

4.2 Regulation versus Indirect Expropriation

The provisions of the first generation of investment agreements were constructed in a broad manner so as to provide wide protection to all kinds of investors from the contracting States.² These agreements left significant discretion to adjudicators, allowing them to read and apply the provisions of the agreements according to factual and contextual specificities. This liberty, in turn, has raised concerns that tribunals will reach inconsistent and contradictory decisions. As Jan Paulsson expressed in 2005:

there is no magical formula, susceptible to mechanical application, that will guarantee that the same case will be decided the same way irrespective of how it is presented and irrespective of who decides it. Nor is it possible to guarantee that a particular analysis will endure over time; the law evolves, and so do patterns of economic activity and public regulation.³

² The agreements generally meant a capital exporting country and capital importing country, the roles however have switched and traditional capital exporting countries, found themselves facing the challenges of capital importing countries, in their duties to protect investment under broad standards of protection.

³ Jan Paulsson, "Indirect expropriation: is the right to regulate at risk?", in *Making the Most of International Investment Agreements: A Common Agenda*, ed. Organisation for Economic Co-operation and Development (Paris 2005), 1.

Vaughan Lowe notes that still after the clarifications incorporated in BITs such as the US Model BIT 2004 there are still challenges to find the dividing line between regulation and expropriation:

However, over the past decade there have been new developments in the area of indirect expropriation, which have arguably evolved out of the increasing number of arbitral tribunals discussing the issue. It is not surprising then that the academic literature on investment arbitration has devoted a great deal of attention to the decisions and new trends led by these arbitral awards. Perhaps, it is the reflection on such decisions that has led numerous - newly signed - IIAs to incorporate express provisions in order to assist - or perhaps to limit - the interpretation of indirect expropriation provisions. An increasing number of IIAs expressly state that the exercise of the police power generally does not constitute an indirect expropriation.⁴ These statements, however, are generally restricted to the protection of the general welfare, such as public health, safety and the environment. This suggests that the conceded sphere of activity under the United States (US) doctrine of the police power (safety, order and morals),⁵ has evolved with time, and has incorporated new societal values, such as the environment. Conversely, provisions on the protection of public morals is increasingly absent in IIAs,⁶ as the notion of morality becomes rather vague and culturally oriented.

It has been discussed in the previous Chapter that the exercise of the police power, understood broadly, will not entail compensation for damage caused to investors. Nonetheless, in some cases its exercise may create responsibility and the obligation to compensate.⁷ The new generation of BITs and FTAs, especially the model agreements set forth by the US and Canada since the mid-2000s, contain two approaches to the interpretation of a claim of indirect expropriation. A first approach covers a broad sphere of regulatory action, which is not specified by the wording of the agreement. In order to determine whether such broader sphere of regulatory action – police power *latu sensu* – constitutes indirect expropriation, the abovementioned agreements stipulate

¹ I have tried to make two points here. The first is that there is a real uncertainty as to the kinds of interest that are to be protected by BITs; and the second is that there is also real uncertainty as to the criteria for distinguishing between lawful regulation and unlawful expropriations'. Vaughan Lowe, "Changing Dimensions of International Investment Law" *Oxford Legal Studies Research Paper No. 4/2007*(2007).

⁴ See US Model BIT 2004 and 2012, Article 6 – Annexes A-B; Canada Model FIPPA 2004, Article 13 Annex B(13)(1)

⁵ On this point see the work of Freund referred to in Chapter III, Section 3.3.1 and *supra* note 51.

⁶ The protection of public morals can be found in the provisions of the GATT 1994, Article XX (a) (General Exceptions).

⁷ See discussion in Chapter III, Section 3.3.3 and 3.6.2.

three elements of analysis to guide arbitrators in the determination.⁸ The second approach covers a restrictive sphere of governmental action – police power *strictu sensu* – with the aim of protecting the environment, safety and public health. Under this second approach the sphere of governmental action would rarely constitute an indirect expropriation, and therefore, one could conclude: i) that it benefits from a higher level of deference from arbitral tribunals, and it does not constitute a violation of investment protection obligations. This kind of provision is illustrated in treaties such as the 2012 US Model BIT:

except in rare circumstances, non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations.⁹

Or ii) that it constitutes an exception to responsibility for breach of an IIA obligation, or a presumption of legality of the regulatory measure. This type of treaty provision can be found in agreements such as the India – Singapore Comprehensive Economic Cooperation Agreement:¹⁰

1. Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination against the other Party or its investors where like conditions prevail, or a disguised restriction on investments of investors of a Party in the territory of the other Party, nothing in this Chapter shall be construed to prevent the adoption or enforcement by a Party of measures:

(a) necessary to protect public morals or to maintain public order;

(b) necessary to protect human, animal or plant life or health;

(c) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Chapter including those relating to: [...]

(iii) safety; [...]

(e) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

⁸ See Chapter III, Section 3.4.2.3 for an account of relevant IIAs, which incorporate elements of analysis to address claims of indirect expropriation: i) the level of deprivation; ii) the character of the governmental measure; and iii) the investor's backed expectations.

⁹ See 2012 US Model BIT, Annex B (4)(b). This Annex constitutes the interpretative rule, as provided for in Article 6 (Expropriation) of the Agreement (footnote 10).

¹⁰ Comprehensive Economic Cooperation Agreement between the Republic of India and the Republic of Singapore of 29 June 2005, Chapter 6 (Investment), 6.11 (General Exceptions)

In regard, to water-related measures, the question arises as to which sphere of regulatory action (police power *strictu sensu* or broad sphere of regulatory action) water measures belong. When would a water-related measure constitute an exercise of the State's prerogative to regulate, and when would such an action constitute an indirect expropriation? In order to address these questions, and propose a framework of analysis that addresses water-related measures, it is critical to identify potential water-related regulatory measures in the context of a foreign investment.

4.3 Classification of a Water-Related Measures that could be Deemed Expropriatory: Measures over Quantity and over Quality

Chapter III argues that, historically, the notion of the police power has underpinned the States' right to regulate under both national and international law.¹¹ Its exercise has been often invoked by host States as a defence against Investors' claims of indirect expropriation. Arbitral tribunals – in turn – have recognised the legitimacy of the exercise of the police power under international law. However, these same tribunals have also warned that its application as a blanket exception would be detrimental to the protection of foreign investment.¹²

Article 27 of the *Vienna Convention on the Law of Treaties* holds that States shall not invoke their own domestic law as a justification for breaches of international agreements.¹³ Likewise, the International Law Commission's (ILC) Articles on State Responsibility state that the characterisation of an act of State as internationally wrongful is independent of the characterisation of

¹¹ References to the police power by the International Law Commission, "Yearbook of the International Law Commission 1959 -Volume II. Documents of the eleventh session including the report of the Commission to the General Assembly". See Chapter III, Section 3.5 Expropriation.

¹² See *Pope & Talbot v. Canada*, Interim Award (NAFTA), 26 June 2000, para. 99. See also Section 3.6.2

¹³ *Vienna Convention on the Law of Treaties*, May 23, 1969, 1155 U.N.T.S. 331, Article 27: "Internal law and observance of treaties) A party may not invoke the provisions of its internal law as justification for its failure to perform a treaty. This rule is without prejudice to article 46".

the same act under the domestic law of the State.¹⁴ It follows that a water-related measure adopted under water resources management could be deemed expropriatory under international investment law. As Professor Park points out:

prevailing opinion holds that an act wrongful under the law of nations remains so even if a nation's internal law deems otherwise.¹⁵

Investment tribunals do not always have an accurate or comprehensive understanding of the social and economic situation of the host-State. It follows that the regulatory measure under assessment could also be misconceived. This may partially explain the current crisis of legitimacy that exists within the investment arbitration regime.¹⁶

The taxonomy of a regulatory measure requires careful consideration, and so does its foundations. This means that regulatory measures are not always founded exclusively on national policy. Often, regulatory measures may be adopted to implement international agreements related to the environment, human rights and other societal values. The implementation of some provisions of the *UN Watercourses Convention*, for instance, may require the adoption of domestic legislation to comply with obligations of 'reasonable utilisation', 'no harm' and the protection of ecosystems. In one scenario, host States could be required to modify prior water uses, historical water rights and allocation of new water rights in order to support the implementation of the Convention. Note that this scenario is also possible without the implementation of the UN Watercourses Convention, but due to developments

¹⁴ Article 3 of the 'Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries 2001', *Yearbook of the International Law Commission, 2001*, vol. II, Part Two, as corrected.

The characterization of an act of a State as inter-nationally wrongful is governed by international law. Such characterization is not affected by the characterization of the same act as lawful by internal law'.

¹⁵ William W. Yanos Alexander A. Park, "Treaty Obligations and National Law: Emerging Conflicts in International Arbitration" *The Hastings Law Journal* 58, no. 2 (2006), 252.

¹⁶ See Susan D. Franck, "The Legitimacy Crisis in Investment Treaty Arbitration: Privatizing Public International Law through Inconsistent Decisions" *Fordham Law Review* 73(2005); Van Harten, *Investment Treaty Arbitration and Public Law*; Andreas Von Staten, "Deference or No Deference, That is the Question: Legitimacy and Standards of Review in Investor-State Arbitration" *Investment Treaty News* 19 July(2012), <http://www.iisd.org/itn/2012/07/19/deference-or-no-deference-that-is-the-question-legitimacy-and-standards-of-review-in-investor-state-arbitration/>, last visited 2 January 2013; Stephan W. Schill, "Enhancing International Investment Law's Legitimacy: Conceptual and Methodological Foundations of a New Public Law Approach" *Virginia Journal of International Law* 52, no. 1 (2011); Henckels, "Indirect Expropriation and the Right to Regulate: Revisiting Proportionality Analysis and the Standard of Review in Investor-State Arbitration".

in customary international law obligations, or the adoption of other treaty commitments.¹⁷ In any case, the implementation of international law obligations – at the national level – could affect the enjoyment of property rights by investors, protected under IIAs. Whether regulatory measures are the result of treaty implementation, or the result of the exercise of the internal sovereignty of the host State, they could conflict with States’ obligations to protect foreign investment.

This work claims that a sector-specific approach - in this case, water resources - may provide arbitrators with an improved perspective of the regulatory measure under analysis. Such an approach would require that arbitrators adopt a holistic outlook in regard to the nature of water property rights. This means an analysis of the domestic laws linked to water resources as a whole, individually and in relation to each other. Only then would the characterisation of a water right reflect all the legislation involved, making apparent the nature of such right.

However, this work cannot anticipate the wide range of water-related regulatory measures that a host State could possibly adopt, in regard to the management of its water resources. The economic sectors (*e.g.* mining, farming, energy, industry, etc.) in which water-related measures could be undertaken by States is quite broad. For this reason, this section proposes two categories of potential regulatory measures a host State could adopt in managing and allocating water resources. These two prospective types of measures respond to current discussions concerning business practice and

¹⁷ See for instance the *Great Lakes Water Quality Agreement* between the United States and Canada, discussed in Section 4.3.2, *infra notes* 38-39. The Agreement on the Nile River Basin Cooperative Framework (not yet into force), creates a legal and institutional framework for the ‘use, development, protection, conservation and management of the Nile River Basin and its resources’ (Article 1). The Framework Agreement under the influence of the UN Watercourses Convention will facilitate harmonisation of national laws among its members. See Musa Mohammed Abseno, “Nile River Basin” ed. Flavia Rocha Loures and Alistair Rieu-Clark *The UN Watercourses Convention in Force: Strengthening international law for transboundary water management* (Oxon, Routledge: 2013), 151. The United Nations Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes, includes 56 countries located within the EU, outside the EU, Caucasus, Central Asia and North America. This Convention, which may soon be open to membership by States outside the UNECE region, sets out the obligation for its members to adopt mechanisms necessary to pursue joint objectives as regards water-quality (Article 9). Conversely the UN Watercourses Convention merely establishes an obligation to enter into consultations for the adoption of such mechanisms of water-quality standardisation (Article 21.3). For a detailed comparison between these Conventions see: Atila Tanzi, “UN Economic Commission for Europe Water Convention” ed. Flavia Rocha Loures and Alistair Rieu-Clark *The UN Watercourses Convention in Force: Strengthening international law for transboundary water management* (Oxon, Routledge: 2013).

corporate relationships with water resources: i) measures related to water quantity, and ii) measures related to water quality.

There is an unavoidable degree of speculation, as potential water-related measures adopted by States will not necessarily give rise to an investment dispute. However, there are certain general uses of water resources which could affect other water users (*e.g.* for instance mining projects and water pollution; land leases for large-scale farming with access to water; water for energy; and water for ecosystems protection). These examples could create imbalances in the relationships between host States and foreign investors.

4.3.1 Regulatory Measures Linked to Quantity of Water Resources

As suggested above, host States may adopt regulatory measures linked to water quantity at two levels: i) implementation of international agreements – in fields other than investment law – and ii) adoption of national laws.

Chapter II described the efforts in the area of water law to implement an Integrated Water Resource Management (IWRM) approach, which takes into consideration the all-encompassing nature of water. The ‘Status Report on the Application of Integrated Approaches to Water Resources Management’¹⁸ (Water Management Report) states that nearly 80 per cent of the surveyed countries are implementing IWRM principles.¹⁹ Yet, globally only 33 per cent of the countries surveyed are at an advanced stage of implementation of new water laws and regulations.²⁰ This suggests that these countries have in many cases secured agreement on a high level of the IWRM process, having perhaps overcome potential conflicts among water users, arising from possible reallocation and modification of water rights. On the other hand, this also suggests that approximately 67 per cent of the countries surveyed have not

¹⁸ The United Nations Commission on Sustainable Development directed a global survey with the participation of 133 countries in order to assess the progress towards sustainable management of water resources, using integrated approaches. The surveyed countries were classified under the Human Development Index (HDI), which is a composite index that measures health, knowledge, and income. Countries are categorized in four HDI bands: ‘Low’, ‘Medium’, ‘High’ and ‘Very High’. See United Nations Environment Programme (UNEP), “Status Report on the Application of Integrated Approaches to Water Resources Management”, 6.

¹⁹ See Chapter II, Section 2.4.1 for an account of the adoption of Agenda 21 and the commitments agreed by states towards de protection of water resources.

²⁰ United Nations Environment Programme (UNEP), “Status Report on the Application of Integrated Approaches to Water Resources Management”, 12, Figure 2.2. Note that the status of implementation of main water laws is full in 71 per cent of the very high HDI countries, and 20, 16, and 13 per cent in high, medium and low HDI countries, respectively.

completed implementation because they cannot reach an agreement on the IWRM process and reallocation of water, and once they do so, they could still initiate substantial changes to their water legislation, with potential claims of indirect expropriation. It is noteworthy that many water acts protect vested rights, which may present difficulties if major reallocation of water resources is planned through new policies and laws.²¹ The Water Management Report states that very high Human Development Index (HDI) countries have already developed and implemented modern water laws and policies. This suggests that most issues around water property rights, hydrological assessment, allocation and reallocation have been the product of democratic processes. One could reasonably expect high, medium and low HDI countries to adopt and implement IWRM in water policies and laws in the coming years. It follows that such changes in legislation have the potential to create water-related investment disputes should an investor's water rights be affected by such new regulations. Potential conflicts could derive, for instance, from the adoption of new laws and regulations affecting the apportionments of water that were previously granted to foreign investors under licences or contracts. One such potential conflict could arise from water resources reallocation in large-scale agricultural projects.²² The reallocation of water resources could be the result

²¹ The Report states that Mexico for instance has made comments on the difficulties in adopting water legislation and policy due to vested rights. The Water Act (*Ley de Aguas Nacionales*) transitory provisions (Ninth), recognizes vested rights that were granted before the adoption of the new law. Some other have found difficult to implement policies and laws due to lack of consensus among stakeholders. *Ibid.*, 15, Box 2.2.

The Texas Water Code protects vested rights in water: § 11.001. Vested Rights Not Affected. (a) Nothing in this code affects vested private rights to the use of water, except to the extent that provisions of Subchapter G of this chapter might affect these rights, and (b) This code does not recognize any riparian right in the owner of any land the title to which passed out of the State of Texas after July 1, 1895.' Yet, these could be affected under the Eminent Domain of the State, when water is needed for municipal purposes (Article § 11.033). See the 2005 Texas Water Code, Chapter 11, Subchapter A General Provisions.

The *Peruvian Water Act* (*Ley de Recursos Hídricos* No 29338 - 2009) also recognizes that water is under the dominion of the state and expressly prohibits the private property of water resources. Yet, it recognizes and protects vested rights through the Principle of Legal Certainty (Article 3), gives priority to human consumption (*uso personal*), water services supply (Article 39: *uso poblacional*) and productive use (Article 42: *uso productivo*), where Article 43 of the Act lists agriculture, fisheries, energy, health, industry, mining, etc. The Act does not express any preference among these water users. Pursuant to Article 73 the water authority can terminate a water licence due, among others, an official declaration of water scarcity. Compensation is not expressly provided for. In addition, *Reglamento de la Ley N 29338 Ley de Recursos Hídricos* (Complementary Act to the application of the Water Act) allows exceptionally to grant new water licences for water services supply (*uso poblacional*) when it is proven that there does not exist other water resources available, under the condition to pay due compensation. (Article 128.2).

²² On the concept of 'virtual water', see Chapter II Section 2.3.1.2, *supra* note 79. In some instances the concept of virtual water could be linked to the phenomena of 'land grabs' and or 'water grabs'. On these issues see the work of Carin Smaller and Howard Mann, "A Thirst for Distant Lands: Foreign Investment in Agricultural Land and Water", International Institute for

of substantial changes in the water laws of the host State, which might require the implementation of a whole new system for water allocation. Conflicts could arise out of changes to regulatory activity under existing water laws. Another element that plays an important role in forecasting potential water investment disputes, in this specific area, is the consideration that adequate water management can only be reached through the monitoring and measurement of water resources.²³ The Water Management Report states that less than ten per cent of the countries with high, medium and low HDI have a fully implemented water monitoring and information management system.²⁴ In this regard, overcoming deficiencies in information and monitoring of water resources could be used – among others – to support changes in to water uses and allocation. In turn, improved methods to monitor water resources, could potentially involve the adoption of new water regulations potentially affecting existing water entitlements.

As governments sign new IIAs, they should also be aware of the scope of protection that their new water laws are providing to investors' property rights. This aspect will be further discussed under Section 4.4.1 in regard to the nature of water property rights over water resources.

Water allocation systems such as licensing, riparian (land-based), or prior appropriation systems, may provide different scopes of protection of water rights. In the context of international investment law, regulatory measures affecting quantities of water previously allocated to users, and modified, e.g. to protect environmental flows, may also enjoy different levels of protection, due to *strictu* or *lato sensu* application of the police power.

In many cases governments might be confronted with the need for prioritisation of water uses (e.g. protection of environmental flows). Such need to prioritise could be driven by two situations: i) water scarcity, and ii) particular public policy objectives (which can occur even when there is no scarcity problem). Governments could pursue policy objectives, seeking to

Sustainable Development (IISD), http://epe.lac-bac.gc.ca/100/200/300/iisd/2009/thirst_for_distant_lands.pdf. Last visited March 13, 2013; John A. Allan et al., eds., *Handbook of Land and Water Grabs in Africa: Foreign Direct Investment and Food and Water Security* (Abingdon, New York: Routledge International, 2013).

²³ Monitoring and measurement includes information on water quality, quantity, aquatic ecosystems, water use and early warning systems, as expressed in the report United Nations Environment Programme (UNEP), "Status Report on the Application of Integrated Approaches to Water Resources Management", 31, Figure 4.4.

²⁴ *Ibid.*

develop a specific sector of the economy. For instance, the discovery of new mineral deposits could be prioritised over other downstream projects (such as farming). This appears to be the case in the controversial hydro and irrigation Majes Siguan II Project in Peru. This project exemplifies the controversies that could arise between communities, as well as communities and foreign investors, competing for water resources.²⁵

Regarding the first situation, namely water scarcity, prioritisation measures adopted to tackle scarcity may fall within the scope of the police power *strictu sensu*, when such measures aim at protecting safety, public health and the environment. In regard to the second situation, namely particular public policy objectives, regulatory measures reallocating water from one sector to another, due to policy preferences, may fall within the broader police power. There might be cases where reallocation may seek to protect public health or even the environment by allocating water quantities for human consumption and environmental flows, under situations of scarcity. Arguably investment tribunals may be more deferential to regulatory measures dealing with water scarcity, for two possible reasons. Firstly, the provisions contained in several of the new generation of IIAs, regarding the assessment of indirect expropriation, state how the IIA will give more deference to certain spheres of regulatory activity.²⁶ Secondly, there is an increasing view that investment arbitration is of a public nature, which could lead some tribunals to be more deferential to issues relating to the provision of public utilities such as water supply and services, as well as the management of common goods or common-pool resources such as water resources.²⁷ In regard to the adoption of

²⁵ For many years the Peruvian government has been developing a hydrogeneration and irrigation project, the controversial Majes Siguan II Project. This project involves the construction of three dams for electricity generation, which would also feed water resources for irrigation downstream. On the one hand, this project confronted the communities of Arequipa – beneficiary of the project – and Cusco – opposing the project – over water resources. See La Republica, ‘Proyecto Majes Siguan II ya no represará aguas del Apurímac’, Tuesday, 14 August 2012. Available at <http://www.larepublica.pe/13-08-2012/proyecto-majes-siguan-ii-ya-no-represara-aguas-del-apurimac>, last visited 30 June 2013. In addition, one of the three dams, Tucarani was licensed to Tucarani Generation Company S.A. by the former president Valentin Paniagua (2001). There exists concern that the operation of Tucarani may negatively impact the operation of two other dams and irrigation of Majes Siguan II. Elizabeth Huanca, Region Sur, ‘Tarucani sí afectará inversión en Majes II’, 23 May 2013. Available at: <http://www.larepublica.pe/23-05-2013/tarucani-si-afectara-inversion-en-majes-ii>, last visited, 30 June, 2013.

²⁶ See Chapter III, Section 3.4.2.3.

²⁷ See for instance the argument advanced by Anthea Roberts with regard to increasing discussion over the public nature of investor-State arbitration. According to Roberts there is much debate as to the adoption deferential standards of review towards States’ regulatory

reallocation measures due to policy preferences, the measure could fall within the broad regulatory prerogative of States, and be scrutinised accordingly. Yet, there is an important caveat, the link between quantity and quality of water should not be overlooked. Generally, changes in water quantity could affect water quality and vice versa and several measures seeking to protect water quality maybe adopted through reallocation of water quantities.

4.3.2 Regulatory Measures Linked to the Quality of Water

Resources

The protection and improvement of the quality of water resources (*i.e.* water pollution-related regulatory measures) constitute a second category of regulatory measures. Water-quality regulatory measures are likely to occur at some stage of the life of an investment that is linked to the use of natural resources, because of the long life-span of investment projects and the changing political and social environment in several host States. As States continue to develop and evolve their environmental regulations, pollution control also becomes more sophisticated and costly. In addition, public awareness and participation increase scrutiny on governments, and may eventually force governments to become more critical of corporations' pollution. International investment law, in the context of water resources management, has addressed such problems in *Vattenfall v Germany*,²⁸ *PacRim v El Salvador*,²⁹ *Methanex v United States*,³⁰ and *Lucchetti v Peru*.³¹ These cases are linked to regulatory measures seeking to improve the quality of water resources (*Methanex v United States*), to prevent the depletion of fresh water ecosystems (*Vattenfall v Germany*), to protect water resources before they could be negatively affected (*PacRim v El Salvador*) and to protect wetlands (*Lucchetti v Peru*).³²

These types of measures are generally geared towards the protection of public welfare such as safety, public health and the environment, and are recognised

activity. Anthea Roberts, "The Next Battleground: Standards of Review in Investment Treaty Arbitration" *International Council for Commercial Arbitration Congress Series* 16(2011), 175-80.

²⁸ See *Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany*, (ICSID Case No. ARB/09/6).

²⁹ *Pac Rim Cayman LLC v. Republic of El Salvador*, ICSID Case No. ARB/09/12.

³⁰ *Methanex Corp. v. United States of America*, Ad hoc—UNCITRAL (NAFTA).

³¹ *Empresas Lucchetti, S.A. and Lucchetti Peru, S.A. v Republic of Peru*, (ICSID Case No. ARB/03/4)

³² For an account of some of these cases see Chapter II, Section 2.5.2.

as a legitimate exercise of the police power of States. The protection of the above-mentioned welfare objectives, as they may be linked to the quality of water resources, appears to be of a restrictive application. Indeed, a regulatory measure aimed at protecting public health, the environment and safety would rarely be deemed as expropriatory. However, given this extensive deferential treatment toward host States, a question arises as to how strict the scrutiny of such measure shall be. Water-protective measures may be adopted through amendments to existing water or environmental laws.³³ They could also arise out of regulatory changes affecting legal provisions linked to water quality under/within other laws, such as mining laws, energy laws, and other legal provisions, other than water laws *per se*.³⁴

Likewise, governments could modify requirements with regard to levels of pollution. These modifications may not necessarily be implemented in water or environmental laws, but in specific licences granted to the investor. For instance in *Vattenfall v Germany*, the government of Germany modified the conditions of the project, requiring the final approval to meet additional restrictions in regard to the use of water resources for the purpose of changing

³³ For instance the amendments to the Environment Protection and Biodiversity Conservation (EPBC) Act 1999, adopted by the Federal Senate of Australia, which will require additional Commonwealth approval trigger for: 'an action involving coal seam gas development or large coal mining development that has, will have, or is likely to have a significant impact on a water resource'. See Andrew Poulos, "Australia: Senate passes Economic Protection and Biodiversity Conservation "water trigger" Bill", *Mondaq* 2013. Available at: <http://www.mondaq.com/australia/x/246634/Environmental+Law/Senate+passes+Economic+Protection+and+Biodiversity+Conservation+water+trigger+Bill>, last visited June 30 2013.

³⁴ For instance see the State of California's ban on the sale and use of the gasoline additive known as "MTBE". Section 2 of the California Senate Bill 521 of 1997 provided:

'The Legislature hereby finds and declares that the purpose of this act is to provide the public and the Legislature with a thorough and objective evaluation of the human health and environmental risks and benefits, if any, of the use of methyl tertiary-butyl ether (MTBE), as compared to ethyl tertiary-butyl ether (ETBE), tertiary amyl methyl ether (TAME) and ethanol, in gasoline, and to ensure that the air, *water quality*, and soil impacts of the use of MTBE are fully mitigated.' (Emphasis added)

Challenge to the Bill was later withdrawn by Methanex and the measures challenged were: *The 1999 California Executive Order*, the California Phase III Reformulated Gasoline Regulations implemented the California Executive Order, and Amended California Regulations of May 2003. *Methanex Corp. v. United States of America, Final Award (NAFTA)*, 3 August 2005, Part II - Chapter D - Page 3, para. 9.

Also noteworthy is the refusal of the Government of El Salvador to grant new mining licences to the investor, who previously undertook the exploration of mineral reserves in "El Dorado". See *Pac Rim Cayman LLC v. Republic of El Salvador*, ICSID Case No. ARB/09/12, *Notice of Arbitration*, April 30 2009, para. 9. The reason for the El Salvadorian Government refusal to grant additional mining licences appears to be the intention to protect water resources. See Katie Zaunbrecher, "Pac Rim Cayman v. Republic of El Salvador: Confronting Free Trade's Chilling Effect on Environmental Progress in Latin America" *Houston Journal of International Law* 33, no. 2 (2011), 497.

its quality and/or quantity.³⁵ In such case, an investor could argue that the measure imposes higher costs, decreasing their expected profit margins.³⁶

Amendments in water laws – or specific modifications in the conditions of the project – leading to potential investment disputes could arise out of: i) national laws and IIAs, and ii) international law, implemented at the national level *e.g.* *SPP v Egypt*.³⁷ At the national level, it seems reasonable to expect that regulatory frameworks dealing with issues of pollution control are not static. This is particularly the case in countries where environmental standards have not reached an optimum level due to ineffective policy and law implementation. International obligations towards the protection of the quality of water resources may also play a significant role within the domestic regulatory framework of a host State. For example, the Great Lakes Water Quality Agreement between the US and Canada aims at restoring and maintaining ‘the chemical, physical, and biological integrity of the Waters of the Great Lakes’.³⁸ In order to do so, the parties agree to implement ‘measures that are sufficiently protective to achieve the purpose of [the] Agreement.’³⁹ The Great Lakes Water Quality Agreement exemplifies the manner in which international obligations may lead to the adoption and implementation of new domestic regulatory measures.

The implementation of international obligations at the national level may be restrictive and onerous to investment projects. As a result, the implementation of such international obligations into the domestic legal order may lead to breaches of the standards of protection provided for under IIAs. However, these types of regulatory measures are generally addressed under the umbrella of environmental measures, which already enjoys especial protection under the police power *strictu sensu*. Such an approach would weaken a

³⁵ See Chapter II, Section 2.5.2.2.

³⁶ This was also the case in *Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany*, (ICSID Case No. ARB/09/6), where the investor argued that under the new conditions the project would become unprofitable.

³⁷ In this case the foreign investor, a Hong Kong based company, entered into a joint venture with the Republic of Egypt in 1974 to develop tourist complex. In 1978 the Government cancelled the project, under the argument that sites of archaeological importance were to be protected in the area. It is noteworthy, that the tribunal in this case took into account the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage, and stated that the expropriation was not unlawful, but compensation was due in favour of the investor. See *Southern Pacific Properties (Middle East) Limited v Arab Republic Of Egypt*, (ICSID Case No. ARB/84/3)

³⁸ Article 2(1) of the *Protocol Amending the Agreement of Great Lakes Water Quality of 1978 as amended on October 16, 1983 and on November 18, 1987. Between Canada and the United States*.

³⁹ *Ibid.* Article 2(3)

deferential assessment – by arbitral tribunals – of specific water-related measures. Although water pollution measures may be covered by environmental provisions, in order to also address the issue of water quantity and allocation in the context of the special and integrated nature of water resources, this work’s approach may assist arbitrators in looking at water as a category in itself. As expressed in Subsection 4.3.2, tribunals could adopt a deferential standard of review due to the direct link between water quality and health and environmental concerns. These concerns, as discussed above, fall within the scope of the police power of States, and would rarely constitute indirect expropriation.⁴⁰

4.4 A Three-Fold Analytical Framework to Distinguish Indirect Expropriation from Legitimate Regulation

Water measures related to quantity or quality would rarely constitute an act of direct expropriation.⁴¹ It follows then that investors’ claims over measures affecting their water rights are going to be assessed in the context of whether or not they constitute a legitimate regulation – as adopted under the police power – or an indirect expropriation. This Section proposes a framework of analysis, seeking to assist arbitrators in such determination. It consists of a three-fold analytical framework, which seeks to determine the legitimacy of the regulatory measure:

- i) First stage – Finding jurisdiction: This stage of the framework addresses two inquiries in turn. The first inquiry is whether property rights in water resources exist and what the nature of such rights is.⁴² The second inquiry seeks to answer whether the property rights in water – if they exist – constitute an *Investment* protected under the IIA. Therefore, in order to determine the existence of an indirect expropriation, tribunals will first examine whether a property right subject to expropriation exists, and further whether such property right conforms to the definition of

⁴⁰ See Chapter III, Section 3.4.2.3 for reference to relatively recent IIAs, incorporating provisions guiding the standard of review of claims of indirect expropriation.

⁴¹ See Chapter III, Section 3.5.1 on the notion of direct expropriation.

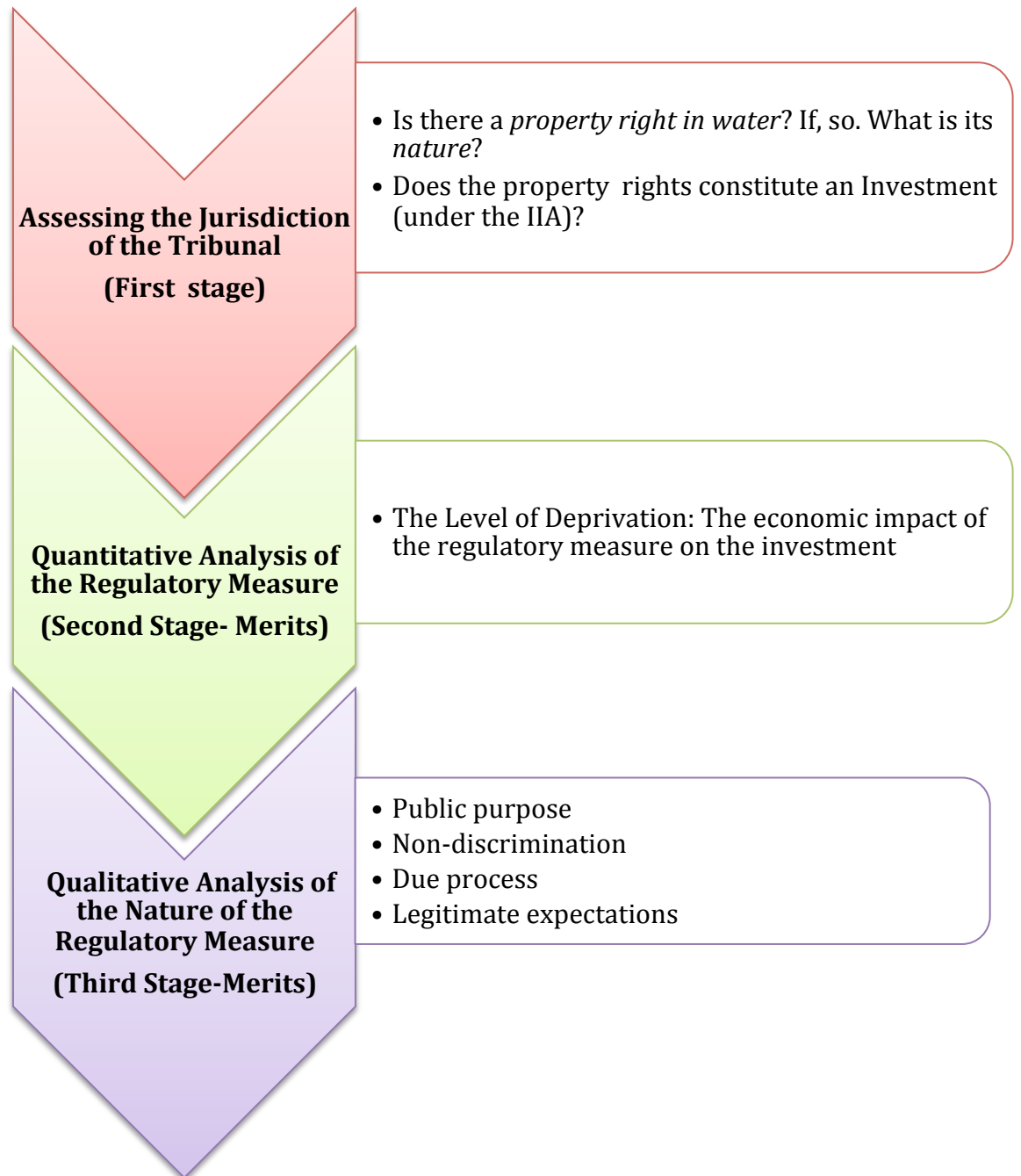
⁴² The existence of property rights (*rights in rem*), and the determination of whether these property rights are deemed to be an *Investment* under the meaning of the IIA, constitute a necessary analysis by arbitral tribunals, previous to addressing each of the specific investor’s claims, such as the claim of indirect expropriation.

Investment, as stipulated in the investment agreement. These two inquiries constitute the first stage of the analytical framework explained above and will be addressed in the next two sections.

- ii) Second stage – Distinguishing indirect expropriation from legitimate regulation: This stage of this analysis adopts a quantitative approach to determine the level of economic deprivation suffered by the investor. The level of economic deprivation from a quantitative perspective focuses on the effects of the measure over the investment. The question is – as Professor Stern proposes –⁴³ whether the analysis would conclude that an indirect expropriation has occurred when the effects of the measure have affected the investment substantially. This work further submits that the analysis should not conclude there, as that would mean adopting a sole effects approach. It is therefore, important to further analyse the nature of the governmental measure, in order to ascertain the legitimate objective of the regulatory measure and dismiss any possible attempt by the government to adopt a disguised act of expropriation, through welfare objectives.
- iii) Third stage – Distinguishing indirect expropriation from legitimate regulation: This part of the framework adopts a qualitative approach, seeking to determine whether the nature of the regulatory measure conforms to standards of good faith and has not been adopted as a disguised act of expropriation. The stage encompasses four aspects that should assist arbitrators in determining the nature of the governmental measure: 1) the public purpose aspect of the regulatory measure, 2) whether it was not discriminatory, 3) whether it was undertaken under due process of law, and 4) whether the government offered assurances to the investor, in other words, whether the investor had legitimate expectations. (See Chart 1).

⁴³ Stern, "In Search of the Frontiers of Indirect Expropriation".

Chart 1: Analytical Framework to Distinguish a Legitimate Regulation from an Indirect Expropriation



4.4.1 The Nature of Property Rights over Water Resources

One of the first considerations in an investment dispute originating under a claim of indirect expropriation of water rights or entitlements is likely to begin with the determination of whether those alleged rights actually exist. As accurately put by Zachary Douglas:

Investments disputes are about investments, investments are about property, and property is about specific rights over things cognisable by the municipal law of the host state.⁴⁴

It is common ground, at least in principle, that property rights or rights *in rem* are not acquired under international law.⁴⁵ In order to determine the existence and scope of property rights one must look into to the municipal law of the host State where the investor claims to have an investment subject to protection.⁴⁶ Only following a determination of the scope of the property rights under the domestic law of the host State, can one examine a claim of indirect expropriation under the standards of international law.

First it is important to recall that domestic law is addressed in different ways by international tribunals, for the purpose of this thesis two ways suffice to illustrate this point. As stated by the Appellate Body of the World Trade Organization, domestic law may be addressed as facts, providing evidence of State practice. Domestic law can also be addressed as evidence of compliance with international obligations.⁴⁷

Examples of this approach are vast, and can be observed in several areas of International law, some inspiration can be drawn from the area of the Law of the Sea. The issue of domestic law as a matter of fact was considered by the International Tribunal for the Law of the Sea (ITLOS) in the M/V SAIGA (No.2)

⁴⁴ Zachary Douglas, "The Hybrid Foundations of Investment Treaty Arbitration" *The British Yearbook of international Law* 74 (2003),197.

⁴⁵ Yet, this does not preclude that some patrimonial rights may be conferred by international treaty, as has been stated in decisions of the International Court of Justice. See United Nations, "Yearbook of the International Law Commission. Volume II", 3.

⁴⁶ In this regard Zachary Douglas offers a comprehensive analysis of the relationship of property right and municipal law of the host State, which in his analysis constitutes the respondent in an investment dispute. "Rule 4. The law applicable to an issue relating to the existence or scope of property rights comprising the investment is the municipal law of the host state, including its rules of private international law". See Zachary Douglas, *The International Law of Investment Claims* (Cambridge: Cambridge University Press, 2009), 52.

⁴⁷ See also Appellate Body Report, *India – Patent Protection for Pharmaceutical and Agricultural Chemical Products (India- Patents (US))*, WT/DS50/AB/R, adopted on 16 January 1998, paras 65-66 and 68.

Case⁴⁸, where ITLOS stated that the relevant question in the case at hand was whether the SAIGA (ship) had the nationality of Saint Vincent and the Grenadines at the time of the arrest.⁴⁹ The ITLOS applied Article 91 of the United Nations Convention on the Law of the Sea, which provides that every State would set the conditions for the grant of nationality to ships, their registration and the right to fly a flag.⁵⁰ The ITLOS further stated that these are matters regulated by national law and under the sovereignty of each State, hence the tribunal considered the issue – nationality of the ship – as question of fact ‘to be considered like other facts in the dispute before it’.⁵¹

In the area of International Trade Law, the Panel in *China – Auto Parts*⁵² was required to make an objective assessment of the meaning of the relevant provisions of Chinese law within the scope of its terms of reference. As the Panel stated:

Although we are mindful that the measures are part of the domestic law of China, we will be required to determine the meaning of particular provisions of the measures if interpretations of such provisions are contested by the parties.⁵³

In this case the United States, the EU and Canada claimed that Decree 125 and other legal provisions adopted by China, adversely affected exports of automobile parts, in breach of the GATT 1994 and other covered agreements. In order to determine if the measure at issue (Decree 125 and other legal norms) was indeed in breach of WTO Law, the Panel proceeded to the construction of Article 2(2) and the overall structure of Decree 125. On appeal, the Appellate Body revised the construction of the Municipal Law of China undertaken by the Panel, with the following caveat:

The Appellate Body has reviewed the meaning of a Member's municipal law, on its face, to determine whether the legal characterization by the panel was in error, in particular when the claim before the panel concerned whether a specific instrument of municipal law was, as such, inconsistent with a Member's obligations. We recognize that there may be instances in which a panel's assessment of municipal law will go beyond the text of an instrument on its face, in which case further examination may be required,

⁴⁸ *The M/V “SAIGA” (No.2) Case – Saint Vincent and The Grenadines v Guinea*, International Tribunal for the Law of the Sea, Judgement 1 July 1999.

⁴⁹ *Ibid.*, para. 62.

⁵⁰ Article 91 of the United Nations Convention on the Law of the Sea.

⁵¹ *The M/V “SAIGA” (No.2) Case – Saint Vincent and The Grenadines v Guinea*, International Tribunal for the Law of the Sea, Judgement 1 July 1999, para. 66.

⁵² *China – Measures Affecting Imports of Automobile Parts*, Panel Report WT/DS339/R, WT/DS340/R, WT/DS342/R, adopted on 12 January 2009.

⁵³ *Ibid.*, para. 7.1.

and may involve factual elements. With respect to such elements, the Appellate Body will not lightly interfere with a panel's finding on appeal.⁵⁴

In the context of investment arbitration a tribunal will be expected to construct and delve into the nature of the allegedly affected property rights. In this construction, even when the tribunal approaches the domestic law as facts –and not as matter of law – it is bound to consider all the evidence –laws and regulations – that will shape the nature of the water property right.

After the determination of the existence and scope of water rights, the arbitral tribunal will undertake the determination of whether such rights constitute an investment that is subject to protection under international law. Unlike the determination of the scope of property rights under the municipal law of the host State, this determination will be made applying the provisions of a particular investment treaty.

Inspired in the practice of other international tribunals, this Section proposes a close look at the nature of water property rights and the legislation surrounding and shaping them. It argues that different types of property rights, within every legal system, include not only the cultural background of each nation, but also the physical, social and economic characteristics of the asset. As Lehari states: 'time will tell whether BIT disputes will be resolved differently based on the type of resource at stake'.⁵⁵ Following this line of reasoning, the distinct nature of water resources may justify the application of a distinct standard of review by arbitral tribunals.

The determination of the nature and scope of water rights requires the arbitral tribunal to analyse the nature and historical background of water resources and the way in which they shape the expectations and preferences of users in a particular State. Such analysis may involve an understanding of: i) why under most legal systems water resources are not subject to private ownership, ii) why water resources entitlements differ from other resources (such as land or oil), and iii) and why the use of water resources requires a holistic approach. These aspects are somewhat embedded in most domestic legal systems, and reflect social, economic and physical realities pertaining to the water resources in each country.

⁵⁴ *China — Measures Affecting Imports of Automobile Parts*, WT/DS339/AB/R/WT/DS/340/AB/R/WT/DS342/AB/R, Panel Report, adopted 12 January 2009, para. 225. (Footnotes omitted)

⁵⁵ Amnon Lehari and Amir N. Licht, "BITs and Pieces of Property" *The Yale Journal of International Law* 36, no. 1 (2011), 154.

While this work attempts to adopt a general view on domestic water laws, without engaging in any specific country's legal system, it is acknowledged that each country's water law system adopts specific forms of water allocation, reallocation and protection. In this context, this work recognises the challenge in attempting to draw detailed commonalities across all domestic water laws and management practices.⁵⁶ Yet, some commonalities exist, which are embraced by several water laws in many countries. Likewise, emerging principles of water management are increasingly embraced at the supranational level, this is the case of the Dublin Principles of 1992, as well as the adaptive management approach, which have been briefly discussed in Chapter II.

Property rights scholars argue that the construction of property rights, while delimiting the scope of protection subject to the application of domestic law, also harmonizes such protection *vis a vis* other members of society.⁵⁷ In doing so, countries embed societal values that may be linked to limitations on the enjoyment of certain types of property. Therefore an analysis of the nature of property rights could not be complete without taking into account these values and limitations.⁵⁸ This construct, which is underpinned by the sovereignty of the host State as well as an array of institutional and legal mechanisms, cannot be easily transposed into the international investment law sphere due to the latter's broad approach to property rights protection. Under the investment mechanism, every property right that meets the description provided for in the IIA constitutes an Investment, but it is subject to protection only in relation to the foreign investor.⁵⁹ Conversely, in domestic law the right to exclude other users from the sources of water – as an absolute right – is

⁵⁶ It is not the purpose of this work to focus on one country or region. This does not mean, however, that arbitral tribunals will not construct the scope of property rights on the basis of the specific water laws and related regulatory framework of the host State under analysis.

⁵⁷ Lehari and Licht, "BITs and Pieces of Property", 133-34.

⁵⁸ Richard Barnes, *Property rights and natural resources: Studies in international law no. 19* (Oxford, Portland: Hart Publishing, 2009), 27.

⁵⁹ Lehari approaches the issue of property rights under domestic law and the protection of such under the *lex specialis* of the BITs:

'Investors seek to have these rights to assets protected against all types of third parties, including domestic private actors that have a conflicting claim to the assets. In so doing, foreign investors turn not only to local property doctrines in the host country but also to BITs to protect their property rights more broadly.

In this sense, investors aspire to be shielded by a kind of property *lex specialis* that would bind not only the host government but also other private actors that may have rival contentions to rights in these assets.' Lehari and Licht, "BITs and Pieces of Property", 130.

subject to limitations in most legal systems.⁶⁰ This is because national systems of property define rights in relation to other property holders, either for reasons of public interest or competition among property holders.⁶¹ In addition, certain property rights may be infringed if they interfere with rights that States value as more important.

In the context of investment arbitration, reconciling this convoluted web of interrelated interests (*i.e.* in defining investment/property rights) requires a holistic approach to the legal rules pertaining directly or indirectly to the conformation of a water entitlement. While arbitral tribunals are primarily called to undertake the construction of property rights over water resources, host States are called to present a case through evidence of all legal arrangements linked to the water right under analysis. This is because a host State has a wider knowledge and understanding of the intertwined relationships of its domestic water law in relation to other laws. In this regard, it is appropriate to clarify that arbitral tribunals are experts in the field of international law and investment arbitration, with a focus in the investment treaty under application, but less so in the domestic legal system of the host State, which will be treated as facts for the analysis of the tribunal.

Depending on the domestic legal tradition, different water rights may allow for more or less sticks within the bundle of property rights.⁶² This is because water rights are rather precarious in comparison to other types of property. Yet each entitlement allows for complicated relations at both horizontal and vertical levels. The horizontal level refers to the arrangement of norms of the same hierarchy which pertains to the enjoyment of different sticks of the bundle of water rights, in their interrelation with other stick-holders' rights (*e.g.* land, forest, downstream users). These domestic laws regulating each stick resemble a web of sticks rather than a bundle of individual sticks.⁶³ In

⁶⁰ Paul Stanton asserts, in his analysis of the definition of investment under Article 1139 NAFTA, that under domestic law private rights 'acquired' to use water are subject to significant limitations. The questions that follows is to what extent such limitation apposite at the domestic level, are relevant under NAFTA's notion of investment. See Stanton Kibel, "Grasp on Water: A Natural Resource that Eludes NAFTA's Notion of Investment", 107.

⁶¹ Several authors argue that property do not entail rights to the holder, but also obligations towards society. See also Gregory S. Alexander, *The Global Debate over Constitutional Property: Lessons for American Takings Jurisprudence* (Chicago: University of Chicago Press, 2006); Amnon Lehavi, "Mixing Property" *Seton Hall Law Review* 38, no. 1 (2007).

⁶² A brief reference to the concept of the bundle of rights in property law has been made in Chapter I, Section 1.4.3 *supra* note 38.

⁶³ Zellmer attempts the use of the metaphor of a web rights, precisely trying to depict the real interlinks between different right holders and the enjoyment of intertwined property rights. Sandi Zellmer and Jessica Harder, "Unbundling Property in Water", *College of Law, Faculty*

such a scenario – the horizontal level – water laws are connected to other laws of the same hierarchy, such as the laws of land, environmental protection, forestry, and indigenous rights (unless they have a higher hierarchy, in which case the relationship will become vertical). This intertwined legal web of legislation linked to water laws may confer certain expectations to other users, who would, as a result, acquire some sort of interest *vis a vis* the investor's entitlement to use water resources or to discharge on water resources. For instance, the relationship between pollution permits for mining (with an effect over water quantity and/or water quality and downstream farmers. Even when downstream farmers lack formal water entitlement to use certain volumes of water or to receive it under certain quality, there will be a potential for conflict if the resource upstream does not comply with certain standard of quality.

A similar scenario of horizontal relations could be observed at the supranational level. In this regard horizontal relations do not only interlink at a national level, there may be horizontal relations at the international level, *i.e.* obligations arising from investment treaties, human rights declarations, environmental agreements, etc. Yet still, the latter type of obligation will be generally applied within the domestic legal system of the host State through the implementation of domestic laws.⁶⁴ Such situation may partially explain inconsistent arbitral awards in which arbitrators approached non-investment obligations in different ways, contributing to the legitimacy crisis of the investment arbitration mechanism.

Likewise at the vertical level, property rights legislation could be exemplified when international obligations affect domestic law in regard to the same asset/property right. For example, one could imagine a different outcome of an environmental case brought by Argentina against Uruguay,⁶⁵ in which Argentina challenged the development of a pulp mill project undertaken by a Finnish investor in agreement with the government of Uruguay. In the case before the International Court of Justice (ICJ), the Court addressed several legal issues in regard the obligation of optimal and rational utilization of the

Publications. Available at: [http://digitalcommons.unl.edu/lawfacpub\(2007\),](http://digitalcommons.unl.edu/lawfacpub(2007),)
<http://digitalcommons.unl.edu/lawfacpub/11>.

⁶⁴ Lehari refers to this phenomenon as Horizontal Heterogeneity of Legal Norms, to explain the problem of over fragmentation of legal systems due to the high number of BITs signed by host states, which may have a detrimental effect on the level of protection that each investor may demand from the BIT signed by their home state. Lehari and Licht, "BITs and Pieces of Property", 157.

⁶⁵ *Case Concerning Pulp 'Mills on the River Uruguay (Argentina v Uruguay)' (Judgment) [2010] ICJ Rep (20 April 2010).*

River Uruguay, notification, preservation of the aquatic environment and prevention of pollution, among others.⁶⁶ Relevant to the argument of this section, is the Court finding that Uruguay did not breach its substantive obligation,⁶⁷ allowing the respondent State to continue the development of the pulp mill,⁶⁸ which Argentina had requested to be dismantled.⁶⁹ Should the ICJ have agreed with Argentina's request to dismantle the plant due to hypothetical breaches of substantive obligations by Uruguay and the request of Argentina of *restitutio in integrum*, it is likely that the decision – as implemented by Uruguay at the domestic level – would have triggered the dispute settlement mechanism provided for in the BIT between Finland and Uruguay. This hypothetical outcome, which would weigh primarily international environmental law obligations, may have trumped the property rights of the Finish investor, who in turn, could have sought redress for any economic injury under the provisions of the Finland – Uruguay investment treaty. Under this hypothesis, an arbitral tribunal would have decided the investment case, guided primarily under international obligation of Uruguay of investment protection.

From this perspective, the hypothetical Decision of the ICJ – described above – would have had an affect on the property interest of the Finish investor. This could mean that the conditions for the acquisition of property rights, such as the investor's licence to operate, would not be completely autonomous, but somewhat linked and limited by the shared obligation – of Argentina and Uruguay – to protect the Uruguay River's environment.

In constructing water property rights, tribunals should consider, for instance, that countries almost consistently have avoided the private ownership of water resources.⁷⁰ Haneman, as quoted by Stanton, observes:

The public good nature of water . . . has had a decisive influence on the legal status of water. In Roman Law, and, subsequently, in English and American common law, and to

⁶⁶ *Ibid.* para. 22.

⁶⁷ *Ibid.* para. 282.

⁶⁸ *Ibid.* para. 275.

⁶⁹ *Case Concerning Pulp 'Mills on the River Uruguay (Argentina v Uruguay)' (Judgment) [2010] ICJ Rep (20 April 2010)*, para. 270.

⁷⁰ Stanton Kibel, "Grasp on Water: A Natural Resource that Eludes NAFTA's Notion of Investment", 134.

an extent in Civil Law systems, flowing waters are treated as common to everyone (*res communis omnium*), and are not capable of being owned.⁷¹

In this vein, States have adopted different legal arrangements, predominantly based on State ownership or stewardship of water resources.⁷² For instance, some legal systems, such as the English one, consider that flowing water cannot be subject to ownership,⁷³ and its use is therefore overseen – or in stewardship – of the government.⁷⁴ Likewise, the US has complex systems of water allocation, including a system of prior appropriation in some States.⁷⁵

Currently, domestic water laws are moving towards systems of permits and licences and they seem to favour higher levels of flexibility in the management of the resource.⁷⁶ It follows, by implication, that more flexibility (*e.g.* to tackle hydrological variability) may have an impact on the security and predictability of water rights.⁷⁷ These changes in reality, however, should not be considered as potential breaches of international law obligations. The *Restatement of the Law, Second: Foreign Relation Law of the United States*, for example, states that even when property rights are to be conferred in conformity with the domestic law of the host State, this arrangement ‘may not violate international standards of justice.’⁷⁸ The withdrawal and cancellation of water permits

⁷¹ *Ibid.*, 104.

⁷² For instance Brazil’s Constitution 1988 (as amended 2004) recognizes ownership of water resources by the States (Article 26) and the Union (Article 20). Likewise, the Mexican Constitution recognizes that water resources belong to the Nation (Article 27.5 Constitution of Mexico 1917, amended 2004); Kazakhstan’s Constitution recognizes the ownership of water resources and other natural resources in favour of the State (Article 6). These examples are drawn from the work of Salman and Bradlow, see Salman and Bradlow, *Regulatory Frameworks for Water Resources Management: A Comparative Study*: 24, 68 and 76.

⁷³ Jane Ball, "The Boundaries of Property Rights in English Law" *Electronic Journal of Comparative Law: Report to the XVIIIth International Congress of Comparative Law* 10, no. 3 (2006), 19.

⁷⁴ Hodgson, "Modern water rights. Theory and practice", 22. Also relevant is the German system of water permits which does not have constitutional provisions regarding the ownership of water resources. Yet, Article 89 of the German Constitution gives federal ownership over inland waterways. The use of water requires a permit or licence under the Federal Water Act, as explained by Salman and Bradlow. See Salman and Bradlow, *Regulatory Frameworks for Water Resources Management: A Comparative Study*, 61-63.

⁷⁵ The literature regarding the American system of water rights and ownership is extensive, and it concentrates in two main traditions: the prior appropriation doctrine, used in the west part of the country, and riparian doctrine, used in the east of the country. An account of these two common law systems is undertaken in Hodgson, "Modern water rights. Theory and practice", 11-14.

⁷⁶ Chapter II discusses the increasing need for a flexible approach to the management of water resources.

⁷⁷ See Zellmer and Harder, "Unbundling Property in Water", 687-88

⁷⁸ American Law Institute, *Restatement of the Law, Second: Foreign Relations Law of the United States. As adopted and promulgated by the American Law Institute at Washington D.C. in May 26 1962* (St. Paul, Minn.: American Law Institute Publishers, 1965). § 185, 555-56.

without payment of compensation as provided for in some domestic legal systems, such as the Alberta Water Act,⁷⁹ could be said to constitute a breach of the provisions on expropriation in most IIAs and under general international law. However, it could be argued – especially in the interest of host States – that a proper construction of water rights should incorporate the unique nature of water resources. First, such construct should consider the unpredictability and variability of the hydrological cycle, embedded in the nature of water resources, which in turn affects the security of water rights. Second the communal characteristic of water traditionally limits the bundle of rights linked to water licences, such a condition should also play an role in the construction of water rights. These considerations are substantially different from those informing de construction of other property rights, such as those on land.⁸⁰

Another consideration likely to be discussed in an investment dispute is whether water entitlements, as a covered investment, constitute a physical asset or an intangible right to use water resources conferred to investors by host States.⁸¹ The answer to this question may have an effect on the decision of the tribunal. For example, if water is considered a physical asset, regulatory measures affecting the use of water resources at the point of extraction could be considered as a direct expropriation since the character of the measure would be one of physical occupation.⁸² The tribunal in *Burlington v Ecuador* undertook an extensive analysis in order to determine whether the tax laws of Ecuador, directed at oil production, amounted to an indirect expropriation. While the tribunal did not find that the level of deprivation was substantial,⁸³ it did find that the last measure adopted by Ecuador (physical occupation of

⁷⁹ s 55(2), Water Act RSA 2000 c. W-3 (Alberta Canada). See Chapter II *supra* note 204.

⁸⁰ See Saxer, "The Fluid Nature of Property Rights in Water", 3.

⁸¹ On this issue it is noteworthy the article by John Lesly which addresses such a question, referring especially to takings of appropriative water rights. Lesly explains that the argument has been invoked by several practitioners on claims of takings against governmental measures affecting water rights. This is because a physical taking would be deemed a *per-se* taking under American takings jurisprudence See *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 421-22 (1982). Arbitral tribunals in investment arbitration cases have adopted similar view, see footnote 165 below. See also Grant, who asserts that US Courts, in the past, have found the reduction of water entitlements as a *per se* physical taking, and for that have been widely criticised by commentators. See Douglas L. Grant, "ESA Reductions in Reclamation of Water Contract Deliveries: A Fifth Amendment Taking of Property?" *Environmental Law* 36, no. 4 (2006).

⁸² See for instance *Burlington Resources Inc. v Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Liability, 14 December, 2012

⁸³ See Section 4.4.3.2.1 and *infra* note 167.

Blocks 7 and 21), constituted a direct expropriation.⁸⁴ Although it is unlikely that an arbitral tribunal would find that water entitlements constitute a physical asset, the argument could well be invoked in a dispute, because the nullification of a water licence effectively affects the physical access to the resource. An acceptance of this argument could favour a claim of direct expropriation, in which case the decision in *Burlington v Ecuador* becomes relevant.

The above-mentioned inquiry is significant to the analysis of water rights *vis a vis* indirect expropriation because – as analysed in Chapter II – a water entitlement ‘does not give ownership of the molecules of water’,⁸⁵ but the right to use a certain amount of water.⁸⁶ For this reason, an approach to water entitlements that considers water as a physical asset would be fundamentally misleading.

Arbitral tribunals have favoured the analysis of the physical characteristics of water resources and the resulting intangible nature of the water rights. The tribunal in *Bayview Irrigation District v Mexico* in an *obiter dictum* addressed the issue of water rights as follows:

there is an evident and inescapable conceptual difficulty in positing the existence of property rights in water up-river in Mexico in a context where the entitlement of each Claimant depends upon the apportionment of a certain volume of water, [...] which can be determined only by reference to the volume of water that actually reached the main channel of the Rio Bravo / Rio Grande.

[...] the holder of a right granted by the State of Texas to take a certain amount of water from the Rio Bravo/Rio Grande does not 'own', does not 'possess property rights in', a particular volume of water [...].⁸⁷

In that case, the *obiter dictum* of the tribunal appears to take into account not only the domestic laws of Mexico – the host State – in the construction of the property rights in water alleged by the claimant,⁸⁸ but also the 1944 Treaty for the ‘Utilization of the Water of the Colorado and Tijuana Rivers and the Rio Grande/Rio Bravo’, in order to shape those rights.⁸⁹ The tribunal, however,

⁸⁴ *Burlington v Ecuador*, para. 530-538. As to the possible argument, regarding the comparability of water entitlements and water as a physical asset see *supra* note 78.

⁸⁵ Leshy, "A Conversation About Takings and Water Rights", 2009.

⁸⁶ *Ibid.*

⁸⁷ *Bayview Irrigation District et al. v. United Mexican States, ICSID (Additional Facility) Case No. ARB(AF)/05/1, Award, June 19, 2007*, paras 115-116. See also Chapter II Section 2.5.2.3.

⁸⁸ *Ibid.*, para. 118.

⁸⁹ See *Bayview Irrigation District et al. v. United Mexican States, ICSID (Additional Facility) Case No. ARB(AF)/05/1, Award, June 19, 2007*, paras 120-21.

made no pronouncement as to whether the claimants' rights would have been protected under NAFTA should they have existed.

In addition to the specific case of water resources in the context of investment arbitration, other arbitral tribunals have looked into the domestic legal system of the host State, in order to appreciate the nature of such rights.

In *Suez v Argentina*, for instance, the tribunal expressed:

as in a case of the expropriation of physical assets, a tribunal must first understand the nature of the rights allegedly expropriated before proceeding to determine whether they have been expropriated under international law. To assess the nature of these rights, in a case of alleged expropriation of contractual rights one must look to the domestic law under which the rights were created.⁹⁰

Zachary Douglas provides a critical account of the construct of property rights under the *renvoi* to domestic law in the context of investment disputes. Douglas criticises the analysis of domestic law as facts, as it weakens the task of the arbitral tribunal in the determination of the scope of legal entitlements,⁹¹ which entails a comprehensive analysis of all legal rules in their relation to the property right.⁹²

The case of *Wena Hotels v Republic of Egypt* assists in illustrating this situation. Wena – a British investor – was granted a lease agreement to administer two hotels, which later were confiscated by the Egyptian

⁹⁰ *Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A. v Argentina*, ICSID Case No. ARB/03/19 and under UNCITRAL Rules AWG Group *v Argentina*, Decision on Liability, July 30, 2010, para. 151. See also *Bayview Irrigation District et al. v. United Mexican States*, ICSID (Additional Facility) Case No. ARB(AF)/05/1, Award June 19, 2007, analysing the nature of water resources ownership. See also *EnCana v Ecuador* where the tribunal addressed the claim of VAT returns, which the claimant alleged to be entitled to under Ecuadorian law. “Unlike many BITs there is no express reference to the law of the host State. However for there to have been an expropriation of an investment or return (in a situation involving legal rights or claims as distinct from the seizure of physical assets) the rights affected must exist under the law which creates them, in this case, the law of Ecuador”. See *En Cana Corporation v Republic of Ecuador*, London Court of Arbitration (under UNCITRAL Rules), Award, 3 February, 2006, para. 184.

⁹¹ Douglas, *The International Law of Investment Claims*: 70.

⁹² *Ibid.*, 69-72. Note, however, that the opposed argument asserts that tribunals look at the domestic legal system of the host state as facts in order to avoid interferences into the internal sovereignty of the states. In doing so arbitral tribunals need not pronounce on whether the internal laws of the states are effective, fair or adequate. See for instance the decision of the Permanent Court of International Justice, *Certain German Interests in Polish Upper Silesia*, [1926] PCIJ Rep., Series A, No.7, para. 19. It is one thing to analyse domestic law within the context of assessing a breach of the investment treaty, in which case the governmental measures constitutes a fact, because the analysis takes place in the plane of international law. It is a different thing, that the rules of international law – under which the claim of expropriation is addressed – provide a *renvoi* to domestic law, in order to determine the scope of property rights.

government. Domestic courts had ordered the return of the hotels to Wena; however, the government continued interfering with the operation of the lease agreement. The arbitral award concluded that the Egypt had unlawfully expropriated Wena's investment and ordered the payment of compensation. Douglas asserts that the arbitral tribunal, as well as the *Ad Hoc* annulment committee, failed to determine the extent and scope of the property rights allegedly affected. The tribunal did not analyse breaches of the lease contract by Wena, which if taken into consideration would have changed the extent of property rights alleged by the claimant.⁹³

This work concurs that a holistic approach to the domestic law of the host State would certainly assist arbitral tribunals in achieving a comprehensive construct of the property right under dispute. The tribunal in *Bayview Irrigation District v Mexico* considered in its analysis the physical characteristics of water resources and appears to acknowledge that water resources have unique characteristics which have an effect on the construction of water rights.⁹⁴ The tribunal also paid due consideration to the host State legal tradition, reflected in the Mexican Constitution which stipulates fundamental limitations in private ownership of water resources.⁹⁵ These considerations on water resources from geographical, economical and social perspectives provide adequate context to water entitlements and determine if they are precarious or secure.

4.4.2 The Definition of Investment

The question of whether all assets constitute an investment, subject to the protection under an IIA, does not always have an affirmative answer. Following the determination of whether the domestic laws of the host State confer a property right to the investor (Section 4.4.1), it remains to analyse whether those property rights constitute an investment under the relevant investment treaty.

⁹³ *Ibid.*, 57-58.

⁹⁴ See *Bayview Irrigation District et al. v. United Mexican States*, ICSID (Additional Facility) Case No. ARB(AF)/05/1, Award, June 19, 2007, paras. 114-116

⁹⁵ *Ibid.*, para. 118.

This section addresses whether water entitlements, which are not the sole purpose of the investment, but part of it, constitute an investment in their own right or as part of the operation of the investment as a whole.

The definition of investment is negotiated in the IIA, which generally encompasses a broad and open ended range of property rights, and such definitions often refer to virtually to ‘every kind of asset’ including direct, and in most cases, portfolio investments.⁹⁶ Since water entitlements are generally granted in the form of licences, permits or concessions, a water entitlement would be considered an investment. The Energy Charter Treaty (ECT), which is a sector-specific agreement, includes all assets, present and future, that are related to the economic activity in the energy sector.⁹⁷

⁹⁶ UNCTAD states that lists of investments usually includes ‘movable and immovable property, interests in companies – including both portfolio and direct investment – contractual rights, intellectual property and business concessions.’ United Nations Conference on Trade and Development (UNCTAD), *Investor-State Dispute Settlement and Impact on Investment Rulemaking* (New York, Geneva: United Nations, 2007), 22.

⁹⁷ See the Energy Charter Treaty’s definition of Investment, provided for in Article 1 (6): “Investment” means every kind of asset, owned or controlled directly or indirectly by an Investor and includes: (a) tangible and intangible, and movable and immovable, property and any property rights such as leases, mortgages, liens, and pledges; (b) a company or business enterprise, or shares, stock, or other forms of equity participation in a company or business enterprise, and bonds and other debt of a company or business enterprise; (c) claims to money and claims to performance pursuant to contract having an economic value and associated with an Investment; (d) Intellectual Property; (e) Returns; (f) *any right conferred by law or contract or by virtue of any licenses and permits granted pursuant to law to undertake any Economic Activity in the Energy Sector*. A change in the form in which assets are invested does not affect their character as investments and the term “Investment” includes all investments, whether existing at or made after the later of the date of entry into force of this Treaty for the Contracting Party of the Investor making the investment and that for the Contracting Party in the Area of which the investment is made (hereinafter referred to as the “Effective Date”) provided that the Treaty shall only apply to matters affecting such investments after the Effective Date. “Investment” refers to any investment associated with an Economic Activity in the Energy Sector and to investments or classes of investments designated by a Contracting Party in its Area as “Charter efficiency projects” and so notified to the Secretariat.’ (Emphasis added)

NAFTA’s definition of Investment, under Article 1139, excludes specific assets: ‘[...] (a) an enterprise; (b) an equity security of an enterprise; (c) a debt security of an enterprise (i) where the enterprise is an affiliate of the investor, or (ii) where the original maturity of the debt security is at least three years, but does not include a debt security, regardless of original maturity, of a state enterprise; (d) a loan to an enterprise (i) where the enterprise is an affiliate of the investor, or (ii) where the original maturity of the loan is at least three years, but does not include a loan, regardless of original maturity, to a state enterprise; (e) an interest in an enterprise that entitles the owner to share in income or profits of the enterprise; (f) an interest in an enterprise that entitles the owner to share in the assets of that enterprise on dissolution, other than a debt security or a loan excluded from subparagraph (c) or (d); (g) real estate or other property, tangible or intangible, acquired in the expectation or used for the purpose of economic benefit or other business purposes; and (h) interests arising from the commitment of capital or other resources in the territory of a Party to economic activity in such territory, such as under (i) contracts involving the presence of an investor’s property in the territory of the Party, including turnkey or construction contracts, or concessions, or (ii) contracts where remuneration depends substantially on the production, revenues or profits of an enterprise; but

Dominican Republic – Central America Free Trade Agreement (CAFTA), Chapter 10 (Investment) provides for list of covered investments in Article 10.28 (Definitions) Investment:

[...] g) licenses, authorizations, permits, and similar rights conferred pursuant to domestic law.

Footnote 10 to letter g) states:

Whether a particular type of license, authorization, permit, or similar instrument (including a concession, to the extent that it has the nature of such an instrument) has the characteristics of an investment depends on such factors as the nature and extent of the rights that the holder has under the law of the Party. Among the licenses, authorizations, permits, and similar instruments that do not have the characteristics of an investment are those that do not create any rights protected under domestic law. For greater certainty, the foregoing is without prejudice to whether any asset associated with the license, authorization, permit, or similar instrument has the characteristics of an investment.

Although a water entitlement may constitute only one investment within a larger group of investments, the role of each investment is relevant to the success of the project as a whole *i.e.* water resources required for mining projects, electricity generation and land leases, among others. It is important to consider that some of these assets – or investments – could be substituted in case of shortage, some others constitute the core of the investment, such as the land and the minerals, and therefore no investment could continue if they are affected. The case of water is somewhat different, it may appear as a modest bundle within the bundle of investment rights *i.e.* it is inexpensive, weakly regulated (especially in developing countries, where most extractive industries operate). However, without water most project would turn unviable *i.e.* it has no substitutes to operate, and cannot be easily transported.

In the context of the ICSID Convention rules, Article 25 of the Convention states that: ‘the jurisdiction of the Centre shall extend to any legal dispute arising directly out of an investment’.⁹⁸ The Convention, however, does not

investment does not mean, (i) claims to money that arise solely from (i) commercial contracts for the sale of goods or services by a national or enterprise in the territory of a Party to an enterprise in the territory of another Party, or (ii) the extension of credit in connection with a commercial transaction, such as trade financing, other than a loan covered by subparagraph (d); or (j) any other claims to money, that do not involve the kinds of interests set out in subparagraphs (a) through (h) [...].’

⁹⁸ Article 25 (1) ICSID Convention Rules: ‘(1) The jurisdiction of the Centre shall extend to any legal dispute arising directly out of an investment, between a Contracting State (or any constituent subdivision or agency of a Contracting State designated to the Centre by that State)

provide for a definition of investment, and nor was there an attempt to do so.⁹⁹ Only in a few instances, ICSID tribunals have declined jurisdiction on the basis that the interest at issue was not an investment under Article 25(1),¹⁰⁰ yet, tribunals do scrutinise their own jurisdiction. In the recent case of *Electrabel v Hungary*, the tribunal considered whether it had jurisdiction to decide the claim under the provisions of Article 25(1). In so doing, the tribunal assessed three elements necessary for an investment, under the ICSID Convention: i) a contribution, ii) certain duration, and iii) an element of risk. The tribunal also recalled the *Salini* test,¹⁰¹ which includes the elements of the economic development contribution to the host State. The tribunal did not consider the ‘contribution to economic development of the host State’ as an element of the investment, but it asserted that such a contribution was rather a desirable consequence of the investment.¹⁰²

The above discussion does not present difficulties when identifying water entitlements as investments, and would not – most likely – be at the core of an investment tribunal’s discussion in a water-related case. It is, however, of interest as part of general legal inquiry on the issue. The notion of investment in the context of water resources is of interest, since the use of water

and a national of another Contracting State, which the parties to the dispute consent in writing to submit to the Centre’.

⁹⁹ Christoph Schreuer et al., *The ICSID convention: A commentary on the Convention on the Settlement of Investment Disputes between States and Nationals of Other States* (Cambridge [England]; New York: Cambridge University Press, 2009), 119.

¹⁰⁰ See for instance *Joy Mining Machinery Limited v. The Arab Republic of Egypt*, ICSID Case No. ARB/03/11, Award on Jurisdiction, 6 August 2004, paras. 40-52 where the tribunal rejected the claim of Joy Mining, because it considered that a bank guarantee did not fall under the scope of the ICSID Convention.

¹⁰¹ In *Salini Costruttori S.P.A. and Italstrade S.P.A. v Kingdom of Morocco*, ICSID Case No. ARB/00/4, Decision on Jurisdiction, 23 July 2001. the tribunal considered the following elements relevant to the definition of investment: ‘The doctrine generally considers that investment infers: contributions, a certain duration of performance of the contract and a participation in the risks of the transaction [...]. In reading the Convention's preamble, one may add the contribution to the economic development of the host State of the investment as an additional condition. In reality, these various elements may be interdependent. Thus, the risks of the transaction may depend on the contributions and the duration of performance of the contract. As a result, these various criteria should be assessed globally even if, for the sake of reasoning, the Tribunal considers them individually here.’ (para. 52)

Such elements have been later contested by academics and practitioners, and there has been discussion as to whether the real intent of the parties was to leave the ICSID Convention without any definition of Investment, giving enough freedom to the parties to negotiate their own definition in the relevant investment agreements.

¹⁰² *Electrabel S.A. v. The Republic of Hungary*, ICSID Case No. ARB/07/19, Award on Jurisdiction, Applicable Law and Liability, November 30, 2012, para. 5.43. See also *Deutsche Bank AG v. Democratic Socialist Republic of Sri Lanka*, ICSID Case No. ARB/09/2, Award, 31 October 2012, para. 295, where the tribunal expressed that the economic contribution to the host State does not constitute a requirement or element of the notion of Investment under the ICISD Convention.

resources is needed for most types of industrial activity, and yet it will not necessarily constitute the sole purpose of the investment. There are few instances where water rights might constitute the main purpose of the investment, *e.g.* when water is provided as a service, when water is bottled for consumption, etc. Conversely, water may be required either as an element of input (in the production process) or will become subject to pollution as a result of different production processes. This is case when the investment is related to mining, electricity generation, industry, and farming; or as part of an extensive list of economic activities where water is needed.¹⁰³

It is in the latter situation where the question arises as to whether water entitlements or water rights should be considered as stand-alone investments or as part of the whole of the investment project. In *Electrabel v Hungary*, the notion of investment under the ECT Article 13(1) was addressed by the tribunal as a whole for the purpose of analysing the claim of expropriation, 'even if different parts may separately qualify as investments for jurisdictional purposes'.¹⁰⁴ Similarly, such a discussion could well arise in a water-related case, in which the regulatory measure would only affect water entitlements, leaving the rest of the elements of the investment untouched (such as in the case of mining concessions, electricity generation permits, land leases, etc.).¹⁰⁵ In this vein, the issue could be addressed in the context of the jurisdiction of the tribunals with regard to the definition of investment, as well as in the context of the analysis of the claim of expropriation, as noted by the arbitral tribunal in *Electrabel v Hungary*.

Each of these pieces of property rights are complementary to the materialization of the investment as a whole, and they are comparable to a bundle of *investment* rights,¹⁰⁶ as approved by the host State under its

¹⁰³ In this regard pollution may not only mean the quality of water resources (as would be the case at hand in *Pacific Rim v El Salvador*), but also its temperature (as was the case in *Vattenfall v Germany*), and in general its original state, which may affect the normal development of ecosystems and consumption.

¹⁰⁴ *Electrabel S.A. v The Republic of Hungary*, ICSID Case No. ARB/07/19, Award on Jurisdiction, Applicable Law and Liability, November 30, 2012, para. 6.58.

¹⁰⁵ The complexity of international projects require a combination of licences, concessions and contracts, among others, in order to put in place the machinery necessary to carry out the operation. In the context of this work, the question could in principle be linked to the issue of partial expropriation. See Section 4.4.3.2.3.

¹⁰⁶ The comparison of the investment with a bundle of rights was adopted for instance in *ATA Construction, Industrial and Trading Company v Hashemite Kingdom of Jordan*, ICSID Case No. ARB/08/2, Award May 18 2012, paras. 96 and 117.

national laws and international agreements.¹⁰⁷ Potential concerns would generally be first addressed in the context of the jurisdiction of the tribunal over claims originating in the impairment of benefits accruing from such property rights (investments), such as water rights.¹⁰⁸ Therefore, the regulatory measure under analysis may affect only one stick of the bundle of investment rights – water entitlements – and therefore the inquiry – at this first stage – will require a determination of whether the water right in question constitutes the main purpose of the investment *e.g.* bottled water. The Tribunal in *Holiday Inns v Morocco* addressed the indivisibility of the investment in the following terms:

it is well known, and it is being particularly shown in the present case, that investment is accomplished by a number of juridical acts 'of all sorts. It would not be consonant either with economic reality or with the intention of the parties to consider each of these acts in complete isolation from the others. It is particularly important to ascertain which is the act which is the basis of the investment and which entails as measures of execution the other acts which have been concluded in order to carry it out.¹⁰⁹

The tribunal in *CSOB v Slovakia* was confronted with a similar issue, having to decide whether an obligation acquired by the Slovak Republic under a Consolidation Agreement, in the context of a much larger investment, was within the scope of its competence. The tribunal addressed the question under the provision of Article 25(1) of the ICSID Convention, through a two-fold test: first, whether the dispute arose out of an investment, within the meaning of the Convention; if so, second, whether the dispute relates to an investment as defined in the parties' consent to ICSID arbitration, in their reference to the BIT and the definitions contained in the relevant parts of such a BIT.¹¹⁰ The tribunal found it had jurisdiction to hear the case, concluding as follows:

¹⁰⁷ United Nations Conference on Trade and Development (UNCTAD), "EXPROPRIATION: A Sequel. UNCTAD Series on Issues in International Investment Agreements II", 23.

¹⁰⁸ See *Enron v Argentina*: "The Tribunal notes in this context that an investment is indeed a complex process including various arrangements, such as contracts, licences and other agreements leading to the materialization of such investment, a process in turn governed by the Treaty. This particular aspect was explained by an ICSID tribunal as 'the general unity of an investment operation' and by one other tribunal considering an investment based on several instruments as constituting 'an indivisible whole' *Enron Corporation and Ponderosa Assets, L.P. v Argentine Republic*, Decision on Jurisdiction, (ICSID ARB/01/3), Award 14 January 2004, para. 70

¹⁰⁹ *Holiday Inns v Morocco*, (ICSID Case No. ARB/72/1) Decision on Jurisdiction, 12 May 1974. As cited in Pierre Lalive D'Epinay, "The first 'World Bank' arbitration (Holiday Inns v. Morocco): Some legal problems" *British Yearbook of International Law* 51(1982), 159.

¹¹⁰ *Teskoslovenska Obchodni Banka, A.S. v The Slovak Republic (CSOB v Slovakia)*, ICSID Case No. ARB/97/4, Decision on Jurisdiction, May 24, 1999, para. 68. See also *Fedax N.V. v. Republic*

an investment is frequently a rather complex operation, composed of various interrelated transactions, each element of which, standing alone, might not in all cases qualify as an investment. Hence, a dispute that is brought before the Centre must be deemed to arise directly out of an investment even when it is based on a transaction which, standing alone, would not qualify as an investment under the Convention, provided that the particular transaction forms an integral part of an overall operation that qualifies as an investment.¹¹¹

In *Joy Mining v Egypt*,¹¹² the tribunal departed from the approach of *Holiday Inns v Morocco* and *CSOB v Slovakia*, and concluded that bank guarantees under a contract constituted contingent liabilities that could not be considered an asset under the relevant BIT.¹¹³

The notion of the ‘unity of economic purpose and functionality’¹¹⁴ of the investment is important in asserting the jurisdiction of the arbitral tribunal to hear the substance of the case. Therefore, consideration of complementary investments widens the types of investments that could fall with the definition of the investment agreement, and the jurisdiction of the tribunal. In a challenge to jurisdiction, for instance, a respondent host State may argue - most likely unsuccessfully - that a water permit or any type of water entitlement does not constitute an investment on its own. Pierre Lalive’s exhaustive account of *Holiday Inns v Morocco* explains that in that case the tribunal found jurisdiction over a contract, signed by the parties, as part of the charter of the investment along with its various supplements, which allowed for the realization of the investment overall.

In the context of the tribunal’s jurisdiction, an investment that is a complementary piece of the whole project may be considered as a standalone investment. Additionally, since each complementary investment has a function within the overall operation, one could inquire as to the significance of each complementary investment within the overall operation. Water resources could

of *Venezuela*, *Decision on Jurisdiction*, 37 *I.L.M.* 1378, July 11, 1997, para. 24 (1998), as referred to by the tribunal, in which the tribunal found inspiration to reach its decision.

¹¹¹ *Teskoslovenska Obchodni Banka, A.S. v The Slovak Republic (CSOB v Slovakia)*, ICSID Case No. ARB/97/4, *Decision on Jurisdiction*, May 24, 1999, para. 72.

¹¹² *Joy Mining Machinery Limited v The Arab Republic of Egypt*, ICSID Case No. ARB/03/11, *Award on Jurisdiction*, 6 August 2004.

¹¹³ The tribunal did not disagree with the approach adopted by the tribunals with the findings in *CSOB v Slovakia*, *FEDAX NV v Venezuela* and *Salini v Morocco*, it simply did not find that the facts of these cases were comparable to the specific issues dealt with in the case at hand. See *Joy Mining Machinery Limited v The Arab Republic of Egypt*, ICSID Case No. ARB/03/11, *Award on Jurisdiction*, 6 August 2004, paras 41-63.

¹¹⁴ United Nations Conference on Trade and Development (UNCTAD), "EXPROPRIATION: A Sequel. UNCTAD Series on Issues in International Investment Agreements II", 22-23.

have an important effect in the success and continuity of the investment, because water does not have substitutes and would be difficult and expensive to be transported for long distances.¹¹⁵ This issue will be further discussed in the following sections.

In *Methanex v US*¹¹⁶ the tribunal was confronted with the scope of Article 1139 of the NAFTA. The United States challenged Methanex's claim that access to the market was a 'property interest subject to protection under Article 1110' of NAFTA.¹¹⁷ The tribunal, in adopting the approach in *Pope & Talbot v Canada*, acknowledged the existence of a new conception of property, which includes 'managerial control over components of a process that is wealth producing'.¹¹⁸ However, it stated it would be difficult to see good will and market share as stand-alone elements, and they would rather be considered as part of the calculation of compensation.¹¹⁹

The comparison of a whole investment with the bundle of rights, as proposed above, may be of assistance when assessing the weight of each complementary piece of investment within the whole operation, in the context of a partial expropriation and the analysis of the economic impact of the measure over the investment.

In regard to the notion of investment and the jurisdiction of the tribunal, two considerations are of special relevance to this Chapter. Firstly, water entitlements could be seen as stand alone investments *e.g.* a licence to extract water resources for the provision of water services, licences to extract water for the development of an energy project. Perhaps less obvious is the type of water rights granted by Canada to Abitibi-Bowater for the operation of paper mills, which – as alleged by the claimant – were not conditional on the continuous operation of the paper mill, and as argued by the claimant perpetually renewable.¹²⁰ These types of water rights are part of a larger project,

¹¹⁵ As regard to the nature of water and its lack substitutes, see Chapter II, Section 2.2. The weight of water resources (water entitlements) within the overall investment is dealt with in Section 4.7

¹¹⁶ *Methanex Corp. v. United States of America, Ad hoc—UNCITRAL (NAFTA)*.

¹¹⁷ *Methanex v United States, Ad hoc—UNCITRAL (NAFTA), Final Award, 3 August 2005, Part IV-Chapter D – Page 7, para. 17.*

¹¹⁸ *Ibid.* para. 17

¹¹⁹ The tribunal in *Methanex v US* relied on the approach of Prof White quoting the following passage: '[market share and good will] constitute [] an element of the value of an enterprise and as such may have been covered by some of the compensation payments'. *Ibid* para. 17. See also *Pope & Talbot v. Canada, Interim Award (NAFTA)*, 26 June 2000, paras 96-105.

¹²⁰ See *AbitibiBowater Inc., v. Government of Canada, Notice of Intent to Submit a Claim to Arbitration under Chapter II NAFTA, 23 April 2009, para.23.*

complementary to the investment as such under the ‘unity of the investment’ approach. Secondly, it follows that the potential withdrawal of a water right may be claimed as expropriatory, arguably affecting the operation of the investment as a whole. In the case of Abitibi-Bowater’s claims, not only water rights were allegedly expropriated, but also several other property rights, such as timber licences and land rights.¹²¹ Unfortunately, the case of Abitibi-Bowater does not provide much light as to the treatment that the tribunal would have given to water entitlements, as the case was settled between the claimant and Canada for 130 million USD.¹²² The relevance of water entitlements *vis a vis* the investment as a whole should be addressed rigorously under the criterion on the economic impact of the measure.

4.4.3 The Effects of the Measure over the Investor’s Property Rights (Second Stage of Analysis)

The assessment of a claim of indirect expropriation is different from the assessment of a claim of direct expropriation. While the latter focuses on the legality of the expropriatory measure and the quantum of the compensation, the former will first make a *prima facie* inquiry into whether the measure under examination is expropriatory at all. As the tribunal in *Glamis Gold v the United State* explained:

There is for all expropriations, however, the foundational threshold inquiry of whether the property or property right was in fact taken. This threshold question is relatively straightforward in the case of a direct taking, for example, by nationalization. In the case of an indirect taking or an act tantamount to expropriation such as by a regulatory taking, however, the threshold examination is an inquiry as to the degree of the interference with the property right. This often dispositive inquiry involves two questions: the severity of the economic impact and the duration of that impact.¹²³

¹²¹ See *AbitibiBowater Inc., v. Government of Canada*, Notice of Intent to Submit a Claim to Arbitration under Chapter II NAFTA, 23 April 2009, para. 27.

¹²² Canada has been heavily criticised for this settlement, which ‘has effectively privatized Canada’s water by allowing foreign investors to assert a proprietary claim to water permits and even water in its natural state’. See The Council of Canadians, ‘AbitibiBowater NAFTA settlement has privatized Canadian water, trade committee hears’, Media Release, 8 March 2011. Available at: <http://www.canadians.org/media/trade/2011/08-Mar-11.html>, last visited September 3, 2013.

¹²³ *Glamis Gold Ltd. v United States of America*, Award under UNICTRAL Rules, June 8, 2009, para. 156.

This second stage of analysis pertains to a ‘quantitative’ assessment, to borrow the term used by Professor Brigitte Stern,¹²⁴ of a claim of indirect expropriation, under the three-fold analytical framework proposed by this thesis. The quantitative analysis is linked to the economic effects of the measure over the protected investment and to the level of deprivation suffered by the investor. Such analysis may provide insight as to whether the level of deprivation is substantial enough so as to amount to an expropriation. The ‘qualitative’ analysis, on the other hand, addresses the character and purpose of the regulatory measure.¹²⁵ The analysis of the effects of the measure over the investment is in practice the most common approach used by investment tribunals, and rarely do tribunals go further into the analysis of the character of the measure in determining the existence of an indirect expropriation.

Before turning to the test on the level of deprivation, it is relevant to address the issue of the *sole effects* approach. It is important to explain at this point why this work departs from such an approach and why it is inadequate for accessing an indirect expropriation.

4.4.3.1 Preliminary Consideration: The Inadequacy of the Sole Effects Approach

The *sole effects* approach as explained in the previous Chapter¹²⁶ focuses on the effects that a governmental measure has over an investor’s property rights and ignores the regulatory purpose and nature of the governmental action, which may or may not amount to an indirect expropriation. The *sole effects* approach is not necessarily spelled out in the provisions of IIAs, rather it appears to be an interpretation of the broad notions of expropriation that are included in the IIAs. Conversely, other tribunals have adopted an interpretative approach that gives deference to the exercise of the police powers. An example of the above could be found in the comparison of two

¹²⁴ See Stern, "In Search of the Frontiers of Indirect Expropriation", 38.

In addition, Dalhuisen and Guzman have proposed a similar test to address claims of indirect expropriation under international law. They consider that a regulatory measures that have a *de minimis* effect over the investment, would be considered an expropriation, unless the measure is adopted for a public purpose (‘super public purpose’) or it is adopted under regular governmental activity. The authors give a close look into the lawfulness of the taking. See H. Jan Dalhuisen and Andrew T. Guzman, "Expropriatory and Non-Expropriatory Takings Under International Investment Law" *UC Berkeley Public Law Research Paper No. 2137107* (2012).

¹²⁵ Stern, "In Search of the Frontiers of Indirect Expropriation", 44.

¹²⁶ See Chapter III, Section 3.5.2.

NAFTA cases: *Methanex v United States* and *Metalclad v Mexico*. Both were decided under Article 1110 of Chapter 11 of the NAFTA and involve alleged claims of expropriation of investor assets for environmental purposes. While the arbitrators based their decisions on the specific facts and context of each case, what is relevant to this example is their distinct understanding of the notion of expropriation as a starting point for the analysis of the claims under the NAFTA.

In *Metalclad v Mexico*, the tribunal began its analysis from the following reading of Article 1110 of the NAFTA:

expropriation under NAFTA includes [...] also covert or incidental interference with the use of property which has the effect of depriving the owner, in whole, or in significant part, of the use of reasonably-to-be-expected economic benefit of property even if not necessarily to the obvious benefit of the host State.¹²⁷

In *Methanex v United States*, the tribunal addressed the notion of expropriation proposed in *Metalclad*. While the tribunal acknowledged that a discriminatory regulation may constitute an expropriation,¹²⁸ it departed from the above reading of Article 1110 NAFTA and proposed the following assessment to the claim of expropriation:

a non-discriminatory regulation for a public purpose, which is enacted in accordance with due process and, which affects, *inter alios*, a foreign investor or investment is not deemed expropriatory and compensable unless specific commitments had been given...¹²⁹

This example shows two somewhat different readings of the provisions on expropriation contained in the same treaty. It follows that in each case, the tribunals will analyse the facts against these different reading of the provisions on expropriation, where the outcome can only be also different.

Traditionally, the literature has identified the approach in *Metalclad v Mexico* with the *sole effects* approach.¹³⁰ In a similar vein, the departing point of analysis for the determination of the existence of an indirect expropriation, proposed by the tribunal in *Suez and Inter-Agua v Argentina*, held that an expropriation inquiry: ‘...is directed particularly at the “effects” of the measure

¹²⁷ *Metalclad Corp. v. Mexico, Arb(AF)/97/1, 5 ICSID Reports, 209, para. 103*

¹²⁸ *Methanex Corp. v. United States of America, (NAFTA) Final Award, 3 August 2005, Part IV - Chapter D - Page 3*

¹²⁹ *Ibid.*

¹³⁰ See Dolzer, "Indirect Expropriations: New Developments?"; Henckels, "Indirect Expropriation and the Right to Regulate: Revisiting Proportionality Analysis and the Standard of Review in Investor-State Arbitration".

on an investment, rather than at the intent of the government enacting the measure'.¹³¹ The wording of the tribunal appears to give deference, in principle, to the *sole effects* approach.

Heiskanen describes the *sole effects* approach as follows:

[...]if the effect of the measures on the value of the investment is made the sole criterion in assessing the measure's legality and no attention is paid to the nature of the act.¹³²

A few tribunals adopted the *sole effects* approach in recent years: *Starrett Housing, Phelps Dodge, Tippetts* (Iran-US Claims Tribunal),¹³³ *Biloune v Ghana, Metalclad v Mexico*, and *Fireman's Fund v Mexico*.¹³⁴ The result of the interpretative process exercised by arbitrators has the potential to impact on the interaction between capital-exporting and capital-importing countries, regardless of their level of development. As Professor Higgins expressed at the Hague Academy of International Law in 1982:

every time a judge decides whether compensation is not due, he is really deciding whether such losses shall be borne by the individuals on whom they happen to fall.¹³⁵

Higgins expressed the difficulties in appreciating the underlying policy that distinguishes a taking for the public purpose, which entails the right to compensation, from an indirect taking for regulatory purpose, which does not.¹³⁶

Currently, there seem to be a transition from a *sole effects* approach towards the police power approach. This is not to say that in the past arbitrators did not embrace the police power approach in a number of awards. For example, the *Oscar Chinn Case, Sea-Land Service Inc. v Iran and S.D. Myers v Canada* constitute a number of examples where the States' prerogative to regulate was

¹³¹ *Suez, Sociedad General de Aguas de Barcelona S.A., and Vivendi Universal S.A. v Argentina*, ICSID Case No. ARB/03/17 and under UNCITRAL Rules *AWG Group v Argentina*, Decision on Liability, July 30, 2010, para. 122.

¹³² Heiskanen, "The Contribution of the Iran-United States Claims Tribunal to the Development of the Doctrine of Indirect Expropriation", 177.

¹³³ Dolzer and Bloch, "Indirect Expropriation: Conceptual Realignment?", 163.

¹³⁴ *Fireman's Fund v. Mexico*, Award, 17 July 2006, para. 176(f). See United Nations Conference on Trade and Development (UNCTAD), "EXPROPRIATION: A Sequel. UNCTAD Series on Issues in International Investment Agreements II", 97.

¹³⁵ See Rosalyn Higgins, "The Taking of Property by the State. Recent Developments in International Law" *Recueil des Cours (The Hage Academy of International Law)* T. 176(1982), 277, 330-31.

¹³⁶ *Ibid.*, 330-31.

given preference by arbitral tribunals.¹³⁷ More recent cases include: *Chemtura v Canada*, *Glamis Gold v United States*, *Pope & Talbot v Canada*,¹³⁸ *Saluka v Czech Republic*,¹³⁹ and *Continental Casualty Company v Argentina*.¹⁴⁰

New provisions on indirect expropriation in Model BITs as well as negotiation of new IIAs, suggest that States seek more deference towards their governmental measures.¹⁴¹

The *effects* approach continues to be relevant to the determination of whether the governmental measure has deprived the investor substantially. This work however, submits that it cannot constitute the sole factor for the decision of whether an indirect expropriation has taken place.¹⁴²

4.4.3.2 The Level of Deprivation: Economic Impact, Duration and Control over the Investment

4.4.3.2.1 The General Approach to the Level of Deprivation

There seems to be agreement, within the academic literature as well as the body of arbitral awards that the impact of the measure ought to be substantial to conclude that there is an indirect expropriation.

The US Supreme Court addressed the issue of interference with the property in 1922 in the case of *Pennsylvania Coal v Mahon*. The opinion issued by Justice Holmes introduced the notion that a taking may be assessed in the light of the diminution of the value of the property:

the general rule at least is that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.¹⁴³

¹³⁷ See Dolzer and Bloch, "Indirect Expropriation: Conceptual Realignments?", 159-61.

¹³⁸ *Chemtura v Canada*, *Glamis Gold v United States*, *Pope & Talbot v Canada* were all decided under NAFTA.

¹³⁹ The Netherlands – Czech Republic BIT.

¹⁴⁰ United States – Argentina BIT.

¹⁴¹ Examples of such investment agreements of the second generation are provided in Chapter III, Section 3.4.2.3, *supra* note 124.

¹⁴² See also United Nations Conference on Trade and Development (UNCTAD), "EXPROPRIATION: A Sequel. UNCTAD Series on Issues in International Investment Agreements II".

¹⁴³ *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922) 260 U.S. 393, Decision of December 11, 1922.

This approach appears to have influenced largely the approach adopted by tribunals addressing the issue of indirect expropriation and the protection of property rights more generally. However, as Fischel suggests:

The phrase “goes too far” is almost famous, but like “diminution of value,” it gives no guide to how far is too far. Holmes’s resort to this language ought to suggest how difficult it is to formulate a precise policy with respect to regulatory takings. His main purpose was to show that there is some limit to police power.¹⁴⁴

While most experts use related words such as ‘serious’, ‘significant’ and ‘fundamental’, among others, they do not always reach the same outcome in the interpretation and application of the provisions of an IIA.¹⁴⁵ Despite the extensive discussion on this matter, it is far from clear whether there is or can be a consistent approach to determine the level of substantiality of the economic impact of a regulatory measure over investment rights.

The categories of regulatory measures over water resources, described above, may require different levels of analysis. Regulatory measures linked to water quantity¹⁴⁶ may be subject to higher scrutiny as to the character of the governmental measure than measures linked to water quality.¹⁴⁷ Likewise, water measures led by government’s policy preferences may also be more strictly scrutinised than measures adopted to face problems of water scarcity. This aspect could be applicable to both water quantity and quality.

The way in which arbitral tribunals approach water rights, under the definition of investment in the relevant IIA, would have an effect on the analysis in regard to the level of deprivation. Section 4.4.2 concluded that water entitlements can fall within the definition of investment under most IIAs¹⁴⁸, because a water entitlement is generally granted as a licence, permit or concession. Under the conclusions proposed in Section 4.4.2, a specific look at each component of the investment project may lead to an individual determination of each component within the larger project. This means that some components would be essential to carry out the operations of the investment, while other elements are auxiliary or could be replaced by other

¹⁴⁴ Fischel, *Regulatory Takings: Law, Economics and Politics*: 20-21.

¹⁴⁵ In this regard see for instance the analysis undertaken by the tribunal in *GAMI v Mexico* of the arbitral award in *Pope & Talbot v Canada* as regards the level of deprivation. See *GAMI Investments v. Mexico, (under UNCITRAL Rules), Final Award, 15 November 2004*, para. 125-128.

¹⁴⁶ See section 4.3.1

¹⁴⁷ See section 4.3.2

¹⁴⁸ See for instance Article 1 (6) of the Energy Charter Treaty: (f) any right conferred by law or contract or by virtue of any licences and permits granted pursuant to law to undertake any Economic Activity in the Energy Sector’, *supra* note 95.

elements of similar characteristics or properties, even if temporarily. In this regard, Section 4.4.2 addressed the issue of whether a water entitlement, as a stick of the bundle of investment rights, would constitute a stand-alone investment for the purpose of establishing the jurisdiction of an investment tribunal.¹⁴⁹ For the purpose of determining the level of deprivation, water entitlements would need to be examined as part of the whole operation. This is because, if the water entitlement were to be assessed in isolation from the rest of the bundle of investment – as a project – the level of deprivation might be insignificant, leading to a dismissal of the claim of indirect expropriation. In such case the tribunal would not be addressing the real impact of the regulatory measure over the whole investment project. Therefore, under the unity of the investment approach an arbitral tribunal could assess the real relevance of water entitlement in relation to the rest of the bundle of investment rights.

The special nature of water resources and its lack of substitutes play a relevant role in this analysis, because deprivation of water - from the perspective of the project as a whole – could render the project useless. Another way to look at the problem would be to look at a water entitlement as an independent investment¹⁵⁰ and assess it in its own right. In such a case, one could argue that a partial expropriation has occurred. This example introduces the issue of partial expropriation, which will be discussed in the next Section.

The wording of numerous IIAs, especially the first generation of BITs, do not always specifically state the level of interference required to consider a regulatory measure as expropriatory.¹⁵¹ Such level has been and still is determined by arbitrators, who appear to agree that it ought to be substantial. It seems less clear, however, what degree of severity the word ‘substantial’

¹⁴⁹ Chapter II elaborates on the nature of water resources, its ownership and the characteristics of water entitlements, such special nature has been addressed in investment arbitration. The tribunal’s dictum in *Bayview Irrigation District v Mexico*, provides some lights as to the deference arbitrators may give to disputes linked to water resources. This work addresses these four systems in a broad manner, as it assumes that most legal systems have at least one of the four allocation systems, or a combination of them. It is acknowledged that each national legal system will have its own particularities regarding water allocation and water usage. Although, this should not hinder a generalized analysis of a regulatory measure linked to water resources, taking into consideration a particular allocation system.

¹⁵⁰ The issue of partial expropriation is discussed in Section 4.4.3.2.3. It is noteworthy that a partial expropriation approach may require the investment to have certain characteristics, as will be addressed below.

¹⁵¹ See Chapter III section on investment treaties and the wording regarding expropriation. Section 3.4.2.3.

precisely entails. Recently, the United Nations (UN) Conference on Trade and Development (UNCTAD) has identified a trend in relation to the severity of the economic impact of the measure, suggesting that the level of interference should be total or close to total and should not 'simply be significant or substantial, as some tribunals have suggested.'¹⁵² The Report seems to adopt the approach of *Pope & Talbot v United States*.¹⁵³ In that case the tribunal was confronted with a claim of expropriation under Article 1110 of the NAFTA, and it examined the effects of the governmental measure and whether they were 'equivalent to...' or 'tantamount to ...' a (direct) expropriation.¹⁵⁴ The tribunal's analysis stated: 'the test is whether that *interference is sufficiently restrictive* to support a conclusion that the property has been 'taken' from the owner'.¹⁵⁵ In addition, the tribunal asserted that: '[s]omething that is equivalent to something else cannot logically encompass more.'¹⁵⁶ It also recalled that the NAFTA constitutes a *lex specialis* regime, conveying that different legal frameworks may accord arbitrators different mandates.¹⁵⁷ A similar approach was adopted by the tribunal in *S.D. Myers v Canada*, where the tribunal refers to the analysis of *Pope & Talbot v Canada*.¹⁵⁸ However, as expressed above, diverse readings and interpretations of the same agreement may be adopted

¹⁵² United Nations Conference on Trade and Development (UNCTAD), "EXPROPRIATION: A Sequel. UNCTAD Series on Issues in International Investment Agreements II", 64.

¹⁵³ The UNCTAD's Report refers to Fortier and Drymer's recollection of arbitral awards assessing the level of interference required to make a finding of indirect expropriation: '...significant part...', 'deprivation of fundamental rights'. See *ibid.*

¹⁵⁴ See Chapter 3 and the reference to provisions contained in IIAs regarding indirect expropriation. See also the Article 4 of the Germany-Egypt BIT of 2005, Article 6 of the 2012 US Model BIT, Chapter 11 Article 1110 of NAFTA; Article 7 of the UK – Mexico BIT of 2006.

¹⁵⁵ *Pope & Talbot v. Canada*, Interim Award, 26 June 2000, para. 102. (Emphasis added)

¹⁵⁶ *Pope & Talbot v. Canada*, Interim Award, 26 June 2000, para. 104. See also the conclusions of Professor Stern on this issue: Stern, "In Search of the Frontiers of Indirect Expropriation", 34. Cases that have followed this line of reasoning and have ruled under a similar approach to *Pope & Talbot* are *CMS Gas Transmission Company v Argentina*, Award (US-Argentina BIT), May 12, 2005, para. 262; *Occidental Exploration and Production Co. v Ecuador*, Award (US – Ecuador BIT), July 1, 2004, para. 89, *Glamis Gold, Ltd. v. United States of America*, Award under UNICTRAL Rules, June 8, 2009, para. 357.

¹⁵⁷ On this point, the tribunal illustrated its analysis by referring to the Iran-US Claims Tribunals, under which 'other measures affecting property rights' could be subjected to compensation, perhaps encompassing a sole effects approach. See for instance the comments by Dolzer and Stevens in Rudolf Dolzer and Margrete Stevens, *Bilateral investment treaties* (The Hague: Martinus Nijhoff, 1995). In the same vein, Heiskanen discusses the mandate conferred to the Iran-US tribunals, which conferred jurisdiction not only to analyse cases of expropriation but also 'other measures affecting property rights'. See Heiskanen, "The Contribution of the Iran-United States Claims Tribunal to the Development of the Doctrine of Indirect Expropriation", 179.

¹⁵⁸ *S.D. Myers, Inc. v Canada*, First Partial Award (NAFTA) of 13 November 2000, para. 386. Note, however, that the tribunal expressed the view that a partial or temporal deprivation of the property rights, may tantamount to expropriation in *some specific contexts*. See *S.D. Myers, Inc. v Canada*, First Partial Award (NAFTA) of 13 November 2000, para. 283.

by tribunals, assessing claims of expropriation or breaches of other standards of protection. While factual and contextual determinations are claimed as pivotal elements leading to the determinations adopted by tribunals, the conceptual notion of indirect expropriation, in this case (as the starting point of the assessment), also plays a relevant role, as discussed in Section 4.4.3.1.¹⁵⁹

The *Pope & Talbot v Canada* decision remains an inspiration for numerous arbitral awards, under the NAFTA, as well as other IIAs. In *Occidental v. Ecuador*, the tribunal had to decide on the legality of tax measures adopted by the government of Ecuador, applying the ‘criterion of substantial deprivation’. The tribunal concluded that the tax measure adopted by Ecuador did not constitute an expropriation.¹⁶⁰ Similar views were adopted by the tribunal in *Chemtura v Canada*. The tribunal deciding the claim of indirect expropriation addressed three questions:

- i) whether there is an investment capable of being expropriated, ii) whether the investment has in fact been expropriated, and iii) whether the conditions of Article 1110(1)(a)-(d) have been satisfied.¹⁶¹

In *Glamis Gold v United States*, the tribunal considered two questions: i) the severity of the economic impact, and ii) its duration.¹⁶² It is possible to argue that numerous arbitral tribunals share the opinion that the impairment over the property should be of such an extent that ‘must be seen as “taken”’.¹⁶³

In *Tecmed v Mexico*, the tribunal seems to set a fairly clear line between a regulatory measure and a *de facto* expropriation; yet, focusing on the effects of the measure over the covered investment:

¹⁵⁹ As suggested in Chapter III, Section 3.5 (Expropriation) claims of expropriation could have inconsistent outcomes, due to the initial reading – by tribunals – of broad notions of expropriation, against which tribunals test the facts of the case. An example is precisely the notion of the severity of the economic impact of the measure. This may support the point that older generations of IIAs may have left arbitrators wider freedom of interpretation of the notion of standard of protection.

¹⁶⁰ *Occidental Exploration and Production Company v The Republic of Ecuador*, London Court of International Arbitration, Case No. UN3467, under UNCITRAL Rules, 1 July 2004, para. 89. Similar approach in *Achter Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc. v Mexico*, ICSID Case No. ARB(AF)/04/05, 21 November 2007, para. 240; *Burlington Resources Inc. v Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Liability, 14 December, 2012, para. 396

¹⁶¹ *Chemtura Corporation v Canada*, Ad hoc—UNCITRAL (NAFTA), Award signed 2 August 2010, para. 242.

¹⁶² *Glamis Gold, Ltd. v. United States of America*, Award under UNICTRAL Rules, June 8, 2009, para. 356

¹⁶³ *Ibid.*, para. 357

... if due to the actions of the Respondent, *the assets involved have lost their value or economic use for their holder and the extent of the loss*. This determination is important because it is one of the main elements to distinguish, from the point of view of an international tribunal, between a regulatory measure, which is an ordinary *expression of the exercise of the state's police power that entails a decrease in assets or rights, and a de facto expropriation that deprives those assets and rights of any real substance* (emphasis added).¹⁶⁴

The wording of the treaty (the NAFTA) has been consistently pivotal in the decision of the tribunals, but the development of the international investment mechanism and the collection of arbitral awards (under other BITs and FTAs) is also of great importance. In this vein, the determination of the tribunal in *Total v Argentina* is of interest, because it notes the specific wording of the BIT between France and Argentina, which extended the protection from expropriation to 'other measures' such as dispossession. However, despite the apparent *sole effects* approach of the treaty, the tribunal found no expropriation in that case, as the deprivation was found to not be substantial:

looking beyond the specific wording of Article 5(2) [of the French-Argentine BIT], the Tribunal considers that under international law a measure which does not have all the features of a formal expropriation could be equivalent to an expropriation if an effective deprivation of the investment is thereby caused. An effective deprivation requires, however, a total loss of value of the property such as when the property affected is rendered worthless by the measure, as in case of direct expropriation.¹⁶⁵

Similar wording is contained in the BIT between Spain and Argentina, which was relevant in the case of *Suez & InterAgua v Argentina*. This case was governed by the Spain-Argentina and France-Argentina BITs, whose expropriation provision could be interpreted in favour of the *sole effects* approach.¹⁶⁶ Indeed, as the tribunal established, the wording – at least in the France – Argentina BIT – directs the inquiry toward the effects of the measure,

¹⁶⁴ *Técnicas Medioambientales Tecmed, S.A. v. United Mexican States*, (ICSID Case No. ARB(AF)/00/2), *Award of 29 May 2003*, 19 *ICSID Rev. —FILJ* 158 (2004), para. 115. In addition, the tribunal appears also to favour the perspective that the exercise of the police power should not be subject to compensation: 'The principle that the State's exercise of its sovereign powers within the framework of its police power may cause economic damage to those subject to its powers as administrator without entitling them to any compensation whatsoever is undisputable'. *Ibid.*, para. 119.

¹⁶⁵ *Total v. Argentina*, ICSID Case No. ARB/04/1 *Decision on Liability*, 27 December 2010, paras 195,199.

¹⁶⁶ France – Argentina BIT Article 5 (Author's translation)

rather than the intent of the government.¹⁶⁷ Following this reasoning, the tribunal examined the severity of the effects of the measure over the investment as well as the nature of the measure in the context of the police power of the State, concluding that no expropriation took place. However, relief was granted in favour of the investor on other grounds.¹⁶⁸

Recently the tribunal in *Burlington v Ecuador* analysed the tax laws on oil revenues, adopted by Ecuador. The tribunal did not find that the taxes applied at 42 per cent substantially deprived the company from expected revenues, nor did the tribunal find a substantial deprivation at 99 per cent. The tribunal considered that despite those levels of taxation, the company was not substantially deprived from its investment because it was still in control of the blocks.¹⁶⁹

It is therefore, safe to argue that in principle, a regulatory measure affecting in total or in part of a water entitlement would not be expropriatory - under the unity of investment approach - provided that other elements of the investment project (*e.g.* land leases, mining agreements, oil production sharing agreements, etc.) would remain unaffected. However, this work has argued extensively that numerous projects could not operate without water resources, rendering the overall investment 'substantially' affected. Such conclusion would give rise to a *prima facie* finding of indirect expropriation. The next section addresses this problem.

¹⁶⁷ *Suez, Sociedad General de Aguas de Barcelona S.A., and InterAgua Servicios Integrales del Agua S.A. v the Argentine Republic*, ICSID Case No. ARB/03/17, Decision On Liability, July 30, 2010, para.122

¹⁶⁸ *Ibid.*, paras. 128-129. It is noteworthy the contrast between the case just referred and the analysis of the tribunal in *Total v Argentina*. In the latter, the tribunal – considering the civil law tradition of both signatory states (France and Argentina) – established that the notion of dispossession is linked to the loss of control, which is a characteristic of the notion of dispossession. The tribunal observed that Total had not lost the control over its investment, which remained under the management of Total, concluding that the condition of dispossession had not been met. See *Total v. Argentina*, ICSID Case No. ARB/04/1 Decision on Liability, 27 December 2010, para. 193-194. While in both cases the tribunals arrived to the conclusion that no expropriation took place, the analysis to arrive to such conclusions is quite different.

¹⁶⁹ *Burlington v Ecuador*, para. 457.

4.4.3.2.2 A Measure Affecting the Enjoyment of Water Rights May Constitute a per se Substantial Deprivation Due to the Inherent Nature of Water Resources

The sections on the nature of water property rights¹⁷⁰ and the definition of investment¹⁷¹ discussed water entitlements as a discrete investment, which may be part of a whole bundle of investment rights granted to the investor by the host State. A discussion on the level of deprivation proposes an inquiry as regards the impact of the governmental measure over the investment. To address this question, it is important to determine what the boundaries of the investment are. Water entitlements that allocate water resources (quantity), or entitlements allowing discharge of pollutants (quality),¹⁷² may not constitute the core of the investment, such rights instead could be a vehicle to achieve the goals of the whole operation. However, it has also been illustrated that water resources do not have substitutes, and cannot be stored¹⁷³ or transported in large quantities, due to water resources' inherent nature.

Therefore, when water entitlements are essential to the overall operation, one could argue that a regulatory measure directed at those entitlements may indirectly expropriate the whole of the covered investment. One could also argue, perhaps with less success,¹⁷⁴ that reallocation of water resources toward other uses may constitute a *de jure* expropriation and a physical seizure of the resource, since the amount of water available to operate the investment would be diminished partially or totally.

The latter scenario *i.e.* the approach to water as a physical asset, could prove problematic for host States' defence, given the view of investment tribunals that physical takings would be deemed a *per se* expropriation or regulatory taking. The issue has been discussed in the context of the nature of property rights in water.¹⁷⁵ In such a scenario, the tribunal should undertake a thorough analysis of the nature of water rights, in line with the discussion of Chapter II, and Section 4.4.1 above. Under such an approach, water becomes an asset when it is physically subtracted from its hydrological flow. Prior to

¹⁷⁰ Section 4.4.1

¹⁷¹ Section 4.4.2

¹⁷² See Section 4.3.2

¹⁷³ Dams may be an exception, yet, they require large extensions of territory, not always available for this purpose

¹⁷⁴ See Section 4.4.1 on the discussion of the alleged physical nature of water entitlements.

¹⁷⁵ Section 4.4.1 briefly addresses the hypothesis of a regulatory measure as a physical taking. See also *supra* note 80.

that moment, water constitutes an expectation of the benefit to use the resource under a given allocation system. This follows from the inherent nature of water resources that allows for allocation systems which do not entitle the users to specific molecules of water, but rather to an amount (or even share) of water at a given time.

Regardless of which approach is taken to the water entitlement, *i.e.* intangible or physical, the assessment leads back to the original inquiry, namely the determination of the level of deprivation, exerted by the regulatory measure. In both cases, assuming the economic activity cannot be undertaken without the input of water resources, the ultimate effects of the measure would turn the investment worthless and meaningless.

This issue has important implications for host States and the policies associated to water resources management, which could have a *de facto* expropriatory effect. Put it in practical terms water unavailability could undermine the whole project. . *A contrario* argument would suggest that such a situation might arise in the context of the management of any natural resource (such as hydrocarbons, land, forests), which could be affected by a regulatory measure limiting their use. In this regard, it is important to recall the especial nature of water, discussed in Chapter II.

There could be cases where the level of deprivation may not become substantial, if the measure does not affect the whole of the water entitlement, *e.g.* reduction of water quantities or reduction of the duration of the permit.¹⁷⁶ While water permits of a shorter duration may allow flexibility for reallocation purposes to tackle scarcity, they may provide less incentive for investors to embark on large projects.¹⁷⁷ After an account of several jurisdictions, Hodgson asserts that water permits for hydropower projects may last between 50 and 70 years. Currently, the development of such projects is under intense scrutiny by local communities and NGOs. The question that arises is whether a reduction of the duration of a water permit under certain conditions would amount to a substantial deprivation of the whole investment. The answer will certainly be a contextual one, however, investment tribunals may consider the following inquiries: whether the project i) can still be carried out, ii) will still make profit, iii) could be undertaken until its conclusion (meaning until the

¹⁷⁶ It is important to consider, however, that despite the fact that numerous countries have adopted modern water right systems; these are not always implemented due to monitoring and enforcement problems. See Hodgson, "Modern water rights. Theory and practice", 61.

¹⁷⁷ *Ibid.*, 62.

expiration of the other licences occurs), and iv) whether water resources are being reallocated. Provided that only the water permit is affected under such a scenario, it seems plausible to answer affirmatively to questions i) and ii). Question iii) addresses the issue of sustainability, namely the change in duration of the life of the whole project, since hydropower generation would be at the core of the investment. Finally, question iv) may be addressed in the context of the nature of the governmental measure, dealt with in Section 4.4.4.

In this hypothetical scenario, arbitrators addressing whether the project could be undertaken until its conclusion, may consider that the early – but properly announced – termination of the project, due to the diminution in duration of the water permit, may amount to a significant or total deprivation of the investment. Therefore, the question of whether water resources are being reallocated (question iv)), may assist in the determination of whether an unlawful indirect expropriation has occurred, as opposed to a legitimate regulation. The question of whether there was a proper notification to the investors that the water entitlement would be reduced is relevant to the analysis of the nature of the governmental measure, which will be discussed in Section 4.4.4.

Notwithstanding, a question still could arise as to whether the deprivation of a water entitlement – addressed in isolation of the whole investment - could constitute a partial expropriation if the other sticks of the bundle of investment rights remain unaffected.

4.4.3.2.3 *Assessment of a Possible Partial Expropriation when Water Entitlements have been affected*

It is difficult to foresee whether a claim of partial expropriation, in a case of revocation of water entitlements, would succeed. Section 4.4.2 (Definition of Investment) discussed the role of water entitlements within the overall investment project, and whether those entitlements would be considered as investments or not. The answer has been affirmative, in the context of the ‘Definition of Investment’, for the purpose of determining the jurisdiction of the tribunal. However, in the context of a discussion on partial expropriation (in the merit stage of an investment dispute), it is also appropriate to address the nature of water entitlements as part of the overall investment.

As synthesised by Professor Kriebaum, a partial expropriation is present when 'only parts of the overall investment are taken'.¹⁷⁸ As addressed in Section 4.4.2, an investment is formed by a group of discrete assets, which could be compared to a bundle of investment rights (i.e. licences, permits, contracts, physical assets), all of which are necessary for the operation of the investment, and therefore should be seen as a whole. It may also be the case that the investor has an extended portfolio of investments (i.e. provision of water services, provision of electricity, etc.). In these cases, it seems more appropriate to speak of several investments.¹⁷⁹

Kriebaum proposes a three tier test to determine whether a tribunal may be confronted with a partial expropriation: i) whether the investment can be disassembled into discrete rights, ii) whether the state's measure affects rights that are covered under the definition of investment, embedded in the relevant agreement, and iii) whether that right could be subject of exploitation independently of the overall investment.¹⁸⁰

Few tribunals have addressed the possibility of a partial expropriation. In *Metalclad v Mexico* the tribunal stated that a *partial* deprivation of the value of the property rights might as well amount to an expropriation:

covert or incidental interference with the use of property which has the effect of depriving the owner, in whole or in significant part, of the use or reasonably-to-be-expected economic benefit of property.¹⁸¹

The tribunal in *GAMI v Mexico*¹⁸² depicted a number of hypotheses under which a direct expropriation of the national investor's assets (GAM's mills) potentially constitute an indirect expropriation of the foreign investor's assets

¹⁷⁸ Ursula Kriebaum, "Partial Expropriation" *The journal of world investment & trade The Journal of World Investment & Trade* 8, no. 1 (2007), 72.

¹⁷⁹ *Ibid.*

¹⁸⁰ *Ibid.*, 83.

¹⁸¹ See for instance *Metalclad Corporation v The United Mexican States*, Award (NAFTA), Case No. ARB(AF)/97/1, November 15 2004, para.103. See *Waste Management v. Mexico, Final Award (NAFTA), April 30 2004*, para. 141 and *En Cana Corporation v Republic of Ecuador, Award under UNCITRAL Rules, February 3 2006*, para. 183.

¹⁸² GAMI brought an investment dispute against Mexico under NAFTA Chapter 11 Article 1110 (expropriation) among others. GAMI owned 14.18% of the shares in the Grupo Azucarero Mexico S.A. de CV (GAM), which was subject to an expropriatory measure by the Mexican Government of five sugar mills. Following a challenge against the expropriatory act, GAM recovered three of the mills and did not continue further actions in regard the two remaining mills, apparently due to their lack of value. The questions for the tribunal were whether the investment (shares) of GAMI in GAM was indirectly expropriated and whether the shares owned by GAMI lost all of their value. The tribunal did not find that GAMI's investment was expropriated. *GAMI Investments v. Mexico, (under UNCITRAL Rules), Final Award, 15 November 2004*, para.126.

covered by the NAFTA (GAMI's shares in GAM). The tribunal was of the view that there was partial expropriation of GAM's sugar mills (*i.e.* expropriation of two mills out of five would still constitute expropriation), even when the damage was not total or equal to a total expropriation.¹⁸³ In this context, the tribunal considered the approach of *Pope & Talbot v Canada* somewhat formalistic.¹⁸⁴ It is also possible that the GAMI tribunal treated the taking of the mills as a physical dispossession of the property, although with no express mention of physical takings.¹⁸⁵ The sugar mills were GAM's property (protected under Mexican law), two of which lacked any economic value.¹⁸⁶ Since the mills were not GAMI's property, the tribunal could not rule on the direct expropriation of some mills, but rather on an act tantamount to expropriation of the value of the shares that GAMI had in GAM. In this vein, the arbitral tribunal analysed the severity of the impact of the measure in order to determine whether the loss of value of GAMI's shares in GAM constituted an indirect expropriation (a 'taking' in the words of the tribunal).¹⁸⁷ The tribunal, however, seemed ready to admit that a partial expropriation of the mills was possible, and hence compensable.¹⁸⁸

¹⁸³ *Ibid.*, paras.126 – 127. Note however, that tribunal made such consideration on hypothetical basis, since it could not assess the case of GAM, which was not a foreign investor.

¹⁸⁴ *Ibid.*, paras. 125-130.

¹⁸⁵ On the issue of physical seizure of assets under investment arbitration see Heiskanen, "The Contribution of the Iran-United States Claims Tribunal to the Development of the Doctrine of Indirect Expropriation", 178-80. In the context of the American jurisprudence it appears that rules has always been clear, physical seizure of property constitutes *per se* a taking, under the 5th Amendment. 'Loretto indicates the continuing power of the older notion that any physical invasion gives rise to a compensable taking' William Michael Treanor, "The original understanding of the Takings Clause" *Columbia Law Review* 95(1995), 804, fn117. Recently in case of water management the US Supreme Court found that temporary flooding of property as governmental measure, was not exempted of the Takings Clause, thus temporary physical occupation of property constitutes a taking under American jurisprudence: 'This rule is arguably inspired by in American jurisprudence of the US Supreme Court. *In a recent case we have drawn some bright lines, notably, the rule that a permanent physical occupation of property authorized by government is a taking. Loretto v Tele-prompter Manhattan CATV Corp.*, 458 U. S. 419, 426 (1982)'. See *Arkansas Game and Fish Commission v. United States of America* (Case No. 11-597). For a discussion of this issue in the context of investment arbitration one can refer to OGEMID, discussion under the Chatman Rules.

¹⁸⁶ *GAMI Investments v. Mexico, (under UNCITRAL Rules), Final Award, 15 November 2004*, para.127 – 128.

¹⁸⁷ The tribunal stated: 'The Tribunal cannot be indifferent to the true effect on the value of the investment of the allegedly wrongful act. GAMI has neglected to give any weight to the remedies available to GAM. Assessment of their effect on the value of GAMI's investment is a precondition to a finding that it was taken'. See *GAMI Investments v. Mexico, Final Award, 15 November 2004*, para. 133.

¹⁸⁸ *Ibid.*, para 116 -131.

GAMI v Mexico depicts a situation in which ‘not everything that counts can be counted and not everything that can be counted counts’.¹⁸⁹ In this context, the tribunals in *S.D. Myers v Canada* as well as *Pope & Talbot v Canada* stated that some investments are not to be considered as standalone investments, such was the case of *good will* and *market share*, which the tribunals looked at in the broader context of the whole investment.¹⁹⁰

The arguments proposed by some academics such as Professor Kriebaum, and the tribunals in *GAMI v Mexico* and *Metalclad v Mexico*, raise important arguments in favour of an approach to partial expropriation. Yet, the conditions of the test proposed by Professor Kriebaum should be present. The question is, therefore, whether a measure affecting water entitlements alone would, similarly, be seen in conjunction with other complementary investments as part of a bundle of investment rights. Section 4.4.2 concludes that water entitlements could constitute standalone investments, and under the unity of the investment approach could also be part of the overall investment. However, as to whether water entitlements could be subject to partial expropriation, the answer will probably depend on the relevance of the role of water permits within the overall project, and whether the exploitation of the permits alone could result in economic benefit.

Professor Kriebaum asserts that there exist cases in which, even when the legal ownership of the installations remain unaffected, the denial or withdrawal of a licence to operate could make it impossible for investors to use their investments. In such cases tribunals would deem the regulatory measures as expropriatory:

It follows that even a “total expropriation” in a traditional sense may be partial if looked at from the perspective of ownership of the assets involved. What is total in this situation is merely the impossibility to make economic use of them.¹⁹¹

The allocation system thus continues to be important in this case, as most water permits would be specific as to the volume, duration and conditions. Most modern water rights systems grant permits for specific uses, and therefore the water entitlement would only grant investors the use of the resource to contribute to the realization of their investment project. There are also legal systems which allow exploitation of water resources without the

¹⁸⁹ Quoting William Bruce Cameron, “Informal Sociology: A Casual Introduction to Sociological Thinking” (1963). The quote has been also attributed to Albert Einstein.

¹⁹⁰ See Section 4.4.2

¹⁹¹ Kriebaum, “Partial Expropriation”, 72.

abovementioned conditions.¹⁹² As has been discussed above in a number of contexts, the type of entitlement and whether it is strictly linked to the investment or not (as in the case of Abitibi-Bowater, discussed above) may affect the claims, and therefore, the approach of the tribunal.

This differentiation becomes relevant to the analysis of partial expropriation. For one thing, a water permit that is granted with no specific condition of use holds some autonomy in relation to the whole investment. It follows that an approach to a partial expropriation could be viable. Conversely, a water permit granted with the sole purpose of supplementing the main project, has no autonomy in practice because the licence would only allow the use of water for the purpose of the operation of the investment. In that case, the assessment of the withdrawal of a licence, from a partial expropriation, would be disingenuous from the perspective of the interests of the investor.

The discussion over partial expropriation may not be mainstream within the analysis of indirect expropriation. It is, however, a necessary exercise that links the nature of property rights – in this case in water – with the definition of investment, and the overall role of the specific asset – water permits – within the operation. Arbitral tribunals may not spell out such a discussion, but this does not mean that such cognitive process is not embedded in factual considerations.

In *Burlington v Ecuador* the tribunal held:

Most tribunals apply the test of expropriation, however it is phrased, to the investment as a whole. Applied to the investment as a whole, the criterion of loss of the economic use or viability of the investment implies that the investment as a whole has become unviable. The measure is expropriatory, whether it affects the entire investment or only part of it, as long as the operation of the investment cannot generate a commercial return.¹⁹³

Previously, the tribunal in *Glamis Gold v the United States* took a similar approach to the analysis of the level of deprivation in relation to the investment as a whole:

The Tribunal [...] begins its analysis of whether a violation of Article 1110 of the NAFTA has occurred by determining whether the federal and California measures “substantially impair[ed] the investor’s economic rights, *i.e.* ownership, use, enjoyment

¹⁹² Hodgson, "Modern water rights. Theory and practice", 64.

¹⁹³ *Burlington Resources Inc. v Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Liability, 14 December 2012, para. 398.

or management of the business, by rendering them useless. Mere restrictions on the property rights do not constitute takings.”¹⁹⁴

In conclusion, the analysis of partial expropriation of water entitlements would fit the overall analytical framework proposed in this thesis, to the extent that each criterion of the framework is applied only to an autonomous water entitlement (not granted for the *sole* purpose of the investment operation). However, as no project could be operated without at least some water resources, the framework of analysis would only be of use when the regulatory measure only affects quantities of water allocation and only partially.

4.4.3.2.4 Additional Elements to Assess the Level of Deprivation: Duration and Control

The ordinary meaning of ‘substantial’ is: ‘[of] considerable importance, size, or worth.’¹⁹⁵ The notion of ‘substantial’ used by most tribunals to assess the level of deprivation, appears to set a lower threshold than the notion of ‘equivalent to’ or ‘tantamount to’ (a direct expropriation).

The *duration* of the governmental measure and the investor’s *control* over the investment may assist to accurately articulate the level of substantiality. The notions of *duration* and *control*, may be indicative of the level of severity of the governmental measure, as assessed against the specific facts of the case.

Duration and *control* were considered by the Iran-US Claims Tribunals in *Tippets*. The tribunal stated:

while assumption of control over property by a government does not automatically and immediately justify a conclusion that the property has been taken by the government, thus requiring compensation under international law, such a conclusion is warranted whenever events demonstrate that the owner was deprived of fundamental rights of ownership and it appears that this deprivation is not merely ephemeral.¹⁹⁶

¹⁹⁴ *Glamis Gold Ltd. v United States of America, Award under UNICTRAL Rules, June 8, 2009*, para. 357. (Emphasis added and footnotes omitted)

¹⁹⁵ The process of interpretation provided in Article 31 a) of the Vienna Convention on the Law of Treaties. The meaning of the word substantial available at: <http://oxforddictionaries.com/definition/english/substantial?q=substantial>, last visited 10 July, 2012.

¹⁹⁶ *Tippets, Abbott, McCarthy, Stratton v Government of the Islamic Republic of Iran, Award No. 141-7-2, 22 June, 1984, 225.*

In *S.D. Myers v Canada*, the tribunal described expropriation as a ‘lasting removal of the ability of an owner to make use of its economic rights’.¹⁹⁷ In this context, the tribunal concluded:

the Interim Order and the Final Order were designed to, and did, curb SDMI’s initiative, *but only for a time*. CANADA realized no benefit from the measure. The evidence does not support a transfer of property or benefit directly to others. An opportunity was delayed.¹⁹⁸

In *Tecmed v Mexico*, the tribunal held that measures are expropriatory only if they are ‘irreversible and permanent’.¹⁹⁹ Likewise, in the context of the European Community, the European Court of Justice (ECJ) in a Preliminary Ruling has stated that a temporary prohibition of new grape vines, which was non-discriminatory and had a temporary nature, did not constitute an undue limitation of the exercise of property rights.²⁰⁰

National, as well as foreign investors, face, in each country, certain degrees of economic and regulatory risk. To the extent that such risk is bearable in the long-term and the prospects of profit are not completely lost, but merely reduced, investors could not claim expropriation of an investment. Where the prospective profits continue to exist and the value of the investment remains, tribunals seem to find difficulties in concluding that an expropriation has occurred. The tribunal in *Burlington v Ecuador* addressed such an issue in some detail:

while losses in one year may indicate that the investment has become unviable and will not return to profitability, this is not necessarily so and a finding of expropriation would need to assess the future prospects of earning a commercial return. It must be shown that the investment’s continuing capacity to generate a return has been virtually extinguished.²⁰¹

¹⁹⁷ *S.D. Myers, Inc. v Canada, First Partial Award (NAFTA) of 13 November 2000*, para 283 (emphasis added). Although it also expressed that in certain circumstances an act of expropriation could be found as a result of a partial and temporary measure. See *Myers v Canada* para 283.

¹⁹⁸ *Ibid.*, para. 287 (emphasis added)

¹⁹⁹ *Tecnicas Medioambientales TECMED S.A. v. The United Mexican States, Award of 29 May 2003*, para. 116.

²⁰⁰ *Liselotte Hauer v Land Rheinland-Pfalz., Case 44/79, ECJ 13 December 1979*, para. 28.

²⁰¹ *Burlington Resources Inc. v Republic of Ecuador, ICSID Case No. ARB/08/5, Decision on Liability, 14 December 2012*, para. 399. In line with this approach and cited by the tribunal in *Burlington v Ecuador*, arbitral tribunals in *Sergei Paushok et al. v the Government of Mongolia, (UNCITRAL Rules), Award on Jurisdiction and Liability, 28 April 2011*, para. 334; and *Achter Daniels Midland Company and Tate & Lyle Ingredients Americas, Inc. v Mexico, ICSID Case No. ARB(AF)/04/05, 21 November 2007*, para. 251.

Even when the measure appears to be permanent, there are cases in which the prospects of the measure being reverted exist, allowing the investor to continue with the exploitation of the operation. In such cases, once the measure has ceased and the control is returned to the investor, the profitability of the investment could be recovered. In cases of reallocation of water resources where the measure could be permanent or temporal, investors may suffer a diminution of water resources, which does not nullify an investor's ability to continue with the project. Yet, it is likely that investors may want to relinquish their project, as was the case in *GAMI v Mexico*²⁰² and *Burlington v Ecuador*.²⁰³

In *Burlington v Ecuador*, for instance, members of the tribunal disagreed with regard to the level of deprivation. Arbitrator Professor Orrego Vicuna found a substantial level of deprivation in Law 42, where the tax imposed was of 50 per cent, while the other members did not share such a view, even when the tax was raised to 99 per cent.²⁰⁴

As for claims of physical dispossession, the same tribunal in *Burlington v Ecuador* went on to consider that the physical occupation of Blocks 7 and 21 could be temporal and therefore the prospects of return were not completely lost:

at that time, there still appeared to be – in the words of the tribunal in *Sedco v. Iran* – a “reasonable prospect” that the investor could “return [to] control” its investment. As long as there was such prospect, Ecuador's occupation could not be deemed to be a permanent measure.²⁰⁵

In the context of water resources management, a measure adopted with the intent to face water scarcity, through reallocation and prioritization of uses, is likely to be temporary. However, when the measure happens to be permanent, the tribunal's inquiry should be directed at whether the measure reduces volumes of water or completely withdraws the licence.

²⁰² *GAMI Investments v. Mexico, under UNCITRAL Rules, Final Award, 15 November 2004*, para.133. See Subsection 4.4.3.2.3 and *supra* notes 181 and 182.

²⁰³ In this case, the tribunal found that Law 42 at 50% and Law 42 at 99% did not substantially deprive the investor of its investment (see *Burlington Resources Inc. v Republic of Ecuador, ICSID Case No. ARB/08/5, Decision on Liability, 14 December, 2012*, para. 430-456); hence, up to this point there was no a finding of expropriation, as Burlington claimed. Yet, Burlington saw no reason to continue with the operation of its blocks.

²⁰⁴ *Burlington Resources Inc. v Republic of Ecuador, ICSID Case No. ARB/08/5, Decision on Liability, 14 December, 2012*, para. 485.

²⁰⁵ *Ibid.*, para. 532. (footnote omitted). In this vein see also *Sedco, Inc. v. national Iranian Oil Company and the Islamic Republic of Iran, Interlocutory Award of 28 October 1985*, 23.

The latter hypothesis brings an additional complication. The withdrawal of a licence could be regarded as a direct expropriation, because there is nothing indirect in cancelling. A cancellation will require the adoption of a measure that expressly withdraws the water permit. The question is, however, how such a governmental measure affects the overall investment. As discussed in the previous subsections, the tribunal might approach the water licence as part of the investment unity, but as discussed above, it may also treat the measure as partial expropriation.²⁰⁶

As for the first hypothesis, *i.e.* a measure that is permanent reduces the volumes of water originally granted to the investor, this may not deprive the investment substantially under a unity of investment approach, following the approach of *Burlington v Ecuador*.

In a case of water scarcity or water stress,²⁰⁷ the adoption of the measure may not always attend a situation of urgency, as the measure could aim at preventing possible human or ecological damage. It is also possible that in responding to policy choices, the measure aims at protecting some industries over others. In such scenarios, the imposition of the burden of cost on the investor may be considered illegitimate. However, an analysis of the nature of the water (property) right under scrutiny may assist arbitrators in evaluating the level of protection the activity enjoys, *e.g.* several national water laws give priority to human consumption. In such a case the property over water resources could be seen as already limited by another use that has been prioritised.

Host States might draw the tribunals' attention toward the character of the governmental measure *i.e.* a restrictive exercise of the police power (safety, public health and environment) or broad exercise thereof (broader regulatory prerogatives). The second part of this chapter analyses the nature of the governmental measure, as it constitutes the third stage of the analytical framework proposed in this work.²⁰⁸

The control over the investment is an issue that acquired relevance during the nationalisations undertaken after the Iranian revolution. While several

²⁰⁶ Section 4.4.3.2.1 have dealt with the view that the inherent nature of water resources is essential to the realization of the investment project. Section and 4.4.3.2.2 have dealt to the possibility that an arbitral tribunal approaches the regulatory measure affecting the water permit as a partial expropriation.

²⁰⁷ See the definition of water stress and water scarcity Chapter II, Section 2.3, *supra* note 107.

²⁰⁸ See Section 4.4.4.

investments were taken over by the new government, they were not necessarily formally expropriated. In such cases, some tribunals held a less restrictive view in determining whether the Iranian measures were expropriatory. As stated by Abtahi in the case of *Harza Engineering Company v. Iran*, the Tribunal suggested in an *obiter dictum* that 'unreasonable interference' is sufficient to constitute an expropriation.²⁰⁹

More recently, in *Feldman v Mexico*, the tribunal examined a claim of expropriation for the imposition of tax laws by Mexico for the export of tobacco products, which was rejected on several grounds. Regarding the issue of control over investment, the tribunal stated:

... the regulatory action has not deprived the Claimant of control of his company interfered directly in the internal operations ... or displaced the Claimant as the controlling shareholder. The claimant is free to pursue other continuing lines of business activity Of course, he was effectively precluded from exporting cigarettes [...] However, this does not amount to Claimant's deprivation of control of his company.²¹⁰

A view recently expressed in *Burlington v Ecuador* states that the '[the] loss of viability does not necessarily imply a loss of management or control'.²¹¹ While the *Burlington* case is fairly recent, it seems to spell out trends in new IIAs, such as the US BIT Models of 2004 and 2012, Canadian BIT Model and several other regional agreements as referred to in Chapter III.²¹²

4.4.3.3 Level of Deprivation Conclusions and Remarks

In the context of the merits of the case, the level of deprivation constitutes the first step of the analysis of a claim of indirect expropriation.²¹³ It provides arbitral tribunals with an indication of the severity of the regulatory measure over the investment. The departure of the *sole effects approach* allows for further analysis of the regulatory measure, even when the measure is - in quantitative terms - tantamount to a direct expropriation, *i.e.* when the deprivation is substantial. The qualitative analysis *i.e.* analysis of the

²⁰⁹ Robert Abtahi, "Indirect expropriations in the jurisprudence of the IranUnited States Claims Tribunal" *Journal of Law and Conflict Resolution* 3, no. 7 (2011), 28.

²¹⁰ *Feldman v. Mexico*, (ICSID Arb(AF)/99/1), Award 16 December, 2002, para. 152. See also *Methanex Corp. v. United States of America*, Final Award (NAFTA), 3 August 2005, Part IV - Chapter D - Page 7, para. 16.

²¹¹ *Burlington Resources Inc. v Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Liability, 14 December 2012, para. 397.

²¹² See Chapter III, Section 3.4.2.3.

²¹³ The analysis of the Level of Deprivation constitutes the Second Stage of analysis within the overall Analytical Framework. See also Chart 1.

character of the governmental measure, seeks to determine whether the measure was effectively adopted in good faith, measured by public purpose, non-discrimination and due process of law, as well as investor's legitimate expectations.

The elements of analysis – presented in each subsection – intend to address the level of deprivation from different perspectives that could be raised by the parties to the investment dispute. These elements have been addressed in the context of property rights over water resources, which take into account the special nature of water and the precarious nature of water rights. In addition, the lack of substitutes for water resources could make the investment project unviable, leading to a potential determination of total deprivation or a *prima facie* finding of indirect expropriation.

On one hand, regulatory measures reallocating water resources permanently, from one economic sector to another *e.g.* to encourage the development of one sector, are likely to fall under the broader exercise of the police power. Therefore, such measures will be subject to higher levels of scrutiny, as suggested by a growing number of IIAs.²¹⁴ On the other hand, regulatory measures reallocating water resources, with a view to protect the environment or restrict pollution, may fall within a restrictive exercise of the police power. Therefore, they may not be deemed indirectly expropriatory – in principle – unless the investor could show the host State's disguised intent to expropriate or discriminate between water users.

One of the most important concerns among academics and advocates of the right to water has been to secure water for human consumption. In this regard, there are three avenues to secure human wellbeing, in the context of this work: i) the provisions adopted by the second generation of IIAs. Under these new agreements regulatory measures aimed at protecting public health, safety and the environment would rarely constitute indirect expropriation. In many cases these public welfare goals will be linked to the management of quantity and quality of water resources; ii) the nature of water property rights, as discussed in Section 4.4.1, which suggests that the construction of such rights ought to take into account the domestic law of the host State, which –

²¹⁴ Note however, that a 'higher' level of scrutiny, as suggested in this case, relates to regulatory measures aimed at protecting safety, public health and the environment, which rarely constitute an indirect expropriation as provided for in the new generation of IIAs. See Chapter III, Section 3.4.2.3

in many cases – prioritise water resources for human consumption; and iii) when domestic legislation does not contain such provisions, the common and non-exclusive characteristic of water resources, could also limit the enjoyment of water entitlements. To this end the three fold framework of analysis suggested by this work may be of assistance.

The next section addresses the character of the governmental measure, also referred to as the nature of the governmental throughout this work. The purpose of this third stage of analysis is to determine the legitimacy and good faith of the governmental action.

4.4.4 *The Nature of the Governmental Measure*

The second generation IIAs,²¹⁵ as referred to above, have adopted more specific provisions addressing the distinction between indirect expropriation and regulation. As illustrated in Chapter III and the previous sections of this Chapter, the second generation of IIAs present two scenarios under which an alleged indirect expropriation could occur. The 2004 US Model BIT (and successor the 2012 US Model BIT) constitutes an illustrative example of other IIAs that contain very similar provisions regarding the distinction between indirect expropriation and legitimate regulation:

4. [...] (a) The determination of whether an action or series of actions by a Party, in a specific fact situation, constitutes an indirect expropriation, requires a case-by case, fact-based inquiry that considers, among other factors:
 - (i) the economic impact of the government action, although the fact that an action or series of actions by a Party has an adverse effect on the economic value of an investment, standing alone, does not establish that an indirect expropriation has occurred;
 - (ii) the extent to which the government action interferes with distinct, reasonable investment-backed expectations; and
 - (iii) the character of the government action.

²¹⁵ Annex B 2004 US Model BIT. Among others: 2004-2012 US Model BIT, Canada's FIPA, CAFTA-DR, China-New Zealand FTA 2008; Australia – Chile Free Trade Agreement 2009, India – Korea Free Trade Agreement 2003.

(b) Except in rare circumstances, non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations.²¹⁶

This type of provision appears to invoke two standards of review, hence different levels of deference toward States' prerogatives to regulate. The first one appears to cover the exercise of the police power in a broad sense (*lato sensu*), while the second one appears to address the exercise of the police power in a narrow sense (*strictu sensu*) i.e. public health, safety and the environment. As prescribed in Annex B of the 2004 US Model BIT and others, the first approach requires a closer scrutiny of the nature of the regulatory measure through a test that is similar to the test used by the US Supreme Court in *Penn Central v United States*.²¹⁷ The second approach sets a higher threshold for a finding of indirect expropriation, when the regulatory measure protects public health, safety or the environment. The 2004 US BIT Model suggests, therefore, that such measures could rarely constitute an indirect expropriation, provided that the measure is: i) non-discriminatory (US Model, Canadian Model, CAFTA-DR, among others); ii) has been adopted in good faith (Canadian Model),²¹⁸ iii) and has been reasonably justified (New Zealand-China FTA).²¹⁹

The aforementioned treaties provide an indication to arbitral tribunals as to the intent of the parties in regard to host States' regulatory measures. This could be seen as a way to balance excessive attention on the level of deprivation (or in other words, the dismissal of the *sole effects* approach in investment arbitration). In the case of the US, this approach seems to go in line with the decision of the US Supreme Court *Lingle v Chevron*,²²⁰ as to avoid

²¹⁶ Annex B (4) 2004 US Model BIT.

²¹⁷ In *Penn Central v the United States*, the Supreme Court - in the opinion wrote by Justice Brennan - drew a more specific criteria to determine when a regulation, adopted under the police power of states, went too far: i) the character of the measure, ii) interference with investment-backed expectations, iii) the extent of the diminution of value. See Chapter III, Section 3.3.1

²¹⁸ 2004 Model BIT Canada, Annex 13(B).(13)(1)(c)

²¹⁹ Bilateral Investment Treaty between China and New Zealand, 2008, Annex 13(5). Available at <http://www.chinafta.govt.nz/1-The-agreement/2-Text-of-the-agreement/0-downloads/NZ-ChinaFTA-Agreement-text.pdf>, last visited May 2, 2013.

²²⁰ *Lingle v Chevron U.S. A. INC.* (04-163) 544 U.S. 528 (2005).

greater protection to foreign investors than that afforded to national investors.²²¹

Once the tribunal has assessed the level of deprivation over the investment, and assuming, *arguendo*, that the deprivation is so severe that the measure could be deemed an indirect expropriation, a determination of the nature of the water-related measure should proceed.

Under the classification of water-related measures, proposed in Section 4.3, a tribunal – as a preliminary step – would be advised to determine whether the measure could be linked to a broad or narrow exercise of the police power. In this vein, one could safely argue that measures linked to water quality, at enhancing control or reducing pollution of fresh water resources, may protect public health, public safety, or the environment. Such regulatory measures would fall within the narrow approach to the police power that gives a greater degree of deference to the host State to regulate in the public interest. In contrast, measures related to water quantity, such as reallocation of water resources or diminution of water permits, would be subject to stricter scrutiny, thus less deference. This determination would be subject to the analysis of whether water reallocation intends to protect public health, safety or the environment, such as in the case of drinking water supply, or whether it is intended to protect or encourage another sector of the economy. In such cases, the analysis of discrimination becomes relevant.²²²

A legitimate act of regulation is generally described as *non-discriminatory*, for a *public purpose*, and sustained by a *due process of law*. While these conditions constitute a test for the determination of lawful expropriation (adding the condition of compensation), they also lead the determination of a different inquiry, which seeks to respond whether the measure has been adopted in

²²¹ The Congress set out a view of ‘no greater protection’ in the negotiation of future BITs: ‘the principal negotiating objectives of the United States regarding foreign investment are to reduce or eliminate artificial or trade-distorting barriers to foreign investment, while ensuring that foreign investors in the United States are not accorded greater substantive rights with respect to investment protections than United States investors in the United States, and to secure for investors rights comparable to those that would be available under United States legal principles and practices’ (2002 Trade Promotion Act, Section 2(b)(3)(D)). As quoted in a discussion on ‘NAFTA Renegotiated through the TTP?’, OGEMID Platform under Chatman House Rules.

²²² Section 4.3.1 and subsections 4.4.3.2.1 and 4.4.3.2.4, addressed the issue regarding the adoption of a regulatory measure affecting – more generally – water quantity, for reasons of: i) water scarcity, and ii) governmental policy preferences.

good faith and in a reasonable manner.²²³ The tribunal in *Quasar de Valores Sicav S.A. v Russia* was of this opinion in its assessment of a claim of expropriation:

Indirect expropriation, of course, does not speak its name. It must be deduced from a pattern of conduct, observing its conception, implementation, and effects as such, even if the intention to expropriate is disavowed at every step. *The fact that individual measures appear not to be well founded in law, or to be discriminatory, or otherwise to lack bona fides, may be important elements of a finding that there has been the equivalent of an indirect expropriation, an expropriation by other means, even though there be no need to determine whether the expropriation was unlawful.*²²⁴

Likewise, the tribunal in *Fireman's Fund v Mexico*²²⁵ considered several aspects in the task of distinguishing a 'compensable expropriation from non compensable regulation'²²⁶ and whether a regulatory measure – adopted by the Mexican government – was within the recognised police power. Notably these aspects can be summarised as: public purpose, the effect of the measure over the investment, discrimination, *bona fide*, proportionality and legitimate expectations.²²⁷

These questions are intimately related to a legitimate exercise of the police power. While international law recognizes that States have the prerogative to regulate, such prerogatives are expected to be exercised in accordance with commitments adopted by States in their relations with other states. In the case of *Rights of Nationals of the United States of America in Morocco*, the ICJ noted:

the power [...] rests with the [...] authorities, but it is a power which must be exercised reasonably and in good faith.²²⁸

²²³ For instance, the Colombia – India BIT of 2009, which provides in Article 6: “2.[...] b) The determination of whether a measure or series of measures of a Contracting Party constitute indirect expropriation requires a case-by-case, fact-based inquiry considering: [...] iv) *the character and intent of the measures or series of measures, whether they are for bona fide public interest purposes or not and whether there is a reasonable nexus between them and the intention to expropriate.* [...] c. Non-discriminatory regulatory actions by a Contracting Party [...] do not constitute expropriation or nationalization; except in rare circumstances, where those actions are so severe that they cannot be reasonably viewed as having been adopted and *applied in good faith for achieving their objective.*” (Emphasis added)

²²⁴ *Quasar de Valores Sicav S.A., Orgor de Valores Sicav S.A., GBI 9000 Sicav S.A., ALOS 34 S.L. v The Russian Federation* (SCC No. 24/2007), Award July 20, 2012, para. 45.

²²⁵ *Fireman's Fund Insurance Company v The United Mexican States*, (ICSID Case No. ARB(AF)/02/01, Additional Facility).

²²⁶ *Ibid.*, para. 176.

²²⁷ *Ibid.*

²²⁸ *Rights of Nationals of the United States of America in Morocco*, (*France v United States*) I.C.J. Reports, Judgement 27 August 1952, 212. See also the decision of the ICJ in *Barcelona Traction*,

The *United States Restatement (Third) of the Law of Foreign Relations*, states that *bona fide* regulations of a general character are part of the police powers of States, and when non-discriminatory do not raise the obligation to pay compensation.²²⁹ Along these lines, the arbitral tribunal in *Methanex v United States* – when analysing the claim of expropriation – invoked the requirements of public purpose, non-discrimination and due process to assess the legality of a regulatory measure, which under those conditions would not be deemed expropriatory, unless the host State undertook commitments to refrain from such regulation.²³⁰

As the requirements of due process and non-discrimination may be addressed under the provisions of other standards of protection such as Fair and Equitable Treatment (FET) and National Treatment, the consideration of such standards are relevant to determine the legitimacy of the exercise of the police power. The level of deference with regard to the exercise of the police power in regulating water resources, must incorporate the precarious nature of water property rights, which, in turn, address the special nature of water resources.

4.4.4.1 Public Purpose

The assessment of public purpose as a criterion to assist in the determination of whether an indirect expropriation has occurred presents several challenges: i) as some assert, the presence of public purpose cannot constitute the absence of indirect expropriation, ii) whether the public purpose could be scrutinized and rejected by arbitral tribunals, and iii) the public purpose might be contextual temporally and spatially. This section attempts to address all these questions, although there may exist some overlap in the discussion because of the intertwined nature of the issue.

Light and Power Company, Limited (Belgium v. Spain), ICJ Reports, Judgement 5 February 1970, 48, para. 93.

²²⁹ “Restatement of the Law Third, the Foreign Relations of the United States”, American Law Institute, Volume 1, 1987, Section 712, Comment g.

²³⁰ *Methanex Corp. v. United States of America, (NAFTA) Final Award, 3 August 2005*, Part IV - Chapter D - Page 4 para. 7. Likewise in *Saluka v Czech Republic* the tribunal addressed the claim of breach of the Fair and Equitable Treatment (FET) standard asserting, with regard the adoption of regulatory measures: ‘In order for the Tribunal to find in favour of the Claimant, the “measures” assessed in light of Article 5 of the Treaty [deprivation] must be shown, in the context of Article 3.1 of the Treaty, to have been “unreasonable or discriminatory”. *Saluka Investment BV (The Netherlands) v Czech Republic, Partial Award 17 March 2006*, para. 469.

Regarding the first issue, and perhaps as an analysis of the decision adopted in the case of *Methanex v United States*, Professor Schreuer considered that:

the fact that a regulatory measure serves some legitimate public purpose cannot automatically lead to the conclusion that no expropriation has occurred and that, therefore, no compensation is due. Under most treaty provisions... the existence of a public purpose is a requirement for the legality of an expropriation. It follows that a legitimate public purpose cannot be the basis of an argument that no expropriation has occurred.²³¹

The issue is relevant in the case of water resources because reliance solely on the public purpose to justify an indirect expropriation without compensation would be equivalent to imposing the burden of risk and costs associated with water variability on the investor.

Virtually all governmental measures respond to a public purpose; ultimately, the role of governmental authority is to protect the general welfare. However, there seems to be agreement on the need to defer to the relevance of the public purpose behind a regulatory measure.²³²

In this work, the context of the public purpose is linked to the management and protection of water resources, and therefore it appears, at least in principle, incontestable because of all the justifications proposed in Chapter II. However, as will be addressed below, there might be situations in which the public purpose – behind a governmental measure – would be subject to greater or lesser deference, and the way in which that measure was adopted, would be subject to higher or lower scrutiny.

What is in the public interest can be of a very diverse nature, and depends on the policy priorities, societal needs, cultural background and contextual values of a particular State.²³³ It is, therefore, a difficult endeavour for arbitrators to make a determination on the appropriateness of the host State's justification of the legitimate exercise of the police power. As Newcombe stresses:

²³¹ Schreuer, "The Concept of Expropriation under the ECT and other Investment Protection Treaties", 28.

²³² The public purpose is referred differently in different agreements, namely public interest, social interest (Colombia-UK BIT 2010), public welfare (China-New Zealand FTA).

²³³ United Nations Conference on Trade and Development (UNCTAD), "World Investment Report 2011: Non-Equity Modes of International Production and Development", 48-49.

international authorities have regularly concluded that no right to compensate arises for reasonably necessary regulations passed for the protection of public health, safety, morals or welfare.²³⁴

As stated above, public health, safety and morals, have traditionally been within the conceded sphere of legitimate exercise of a State's police power. This was recognised by the US Supreme Court at the beginning of the twentieth century; and it has also been incorporated into several IIAs which have been referred to above.²³⁵ The environment was later adopted as one of these conceded spheres of regulatory action.²³⁶ Yet decisions such as *Metaclad v Mexico* and *Santa Elena v Costa Rica*, have shown that public purpose is not the only criterion to conclude that every regulation is legitimate and therefore compensation is not due. In the second case the public purpose did not outweigh the existence of a direct expropriation.

Nonetheless, the inquiry as to whether the public purpose outweighs the obligation to protect investments - for the greater good - seems essential to determine the legitimacy of a regulatory measure because the lack of public purpose could render the governmental measure capricious. On the other hand, excessive scrutiny of the governmental measure could undermine the capacity of States to tackle internal issues relating to the public interest, leading to a regulatory chill.

The manner in which a governmental measure was adopted (as addressed in the context of due process, non-discrimination and legitimate expectations), underscores the notion of good faith and reasonableness, and realizes the principle of proportionality.²³⁷ The existence of *bona fide* in the context of the public purpose assists to dismiss the possibility that the government has adopted a disguised act of expropriation.²³⁸ For instance in *Quasar de Valores*

²³⁴ Newcombe, "The Boundaries of Regulatory Expropriation in International Law", 23.

²³⁵ See Chapter III, Section 3.4.2.3.

²³⁶ Canadian Model BIT (2004) Annex B.13(1) Expropriation; United States Model BIT (2004) Annex B Expropriation, and so does the newest 2012 US Model BIT. It was also recognised by the arbitral tribunal in *Methanex v United States, Part IV - Chapter E - Page 9*, para. 20; *Chemtura v Canada*, para. 254.

²³⁷ The Public Interest constitutes an important feature of the ECHR examination is the evaluation 'in the light of certain relevant criteria, such as bona fide, reasonableness and proportionality' See Giorgio Sacerdoti, "Bilateral Treaties and Multilateral Instruments on Investment Protection", in *Recueil des Cours: Collected Courses of the Hague Academy of International Law*, ed. The Hague Academy of International Law (The Hague: Martinus Nijhoff Publishers, 1997), 388. In addition, reference to lack of *bona fide*, in the context of the public purpose, addresses a potentially disguised act of expropriation.

²³⁸ Santiago Montt, for instance addresses the possibility of States adopting disguised acts of expropriation, behind the veil of "pre-eminent public interest". In order to scrutinise such a

et al v Russia the tribunal analysis the elements of non-discrimination, in accordance with the law (due process) and *bona fide* (in the this specific case the *real* purpose of the measure) seeking to determine whether the measure was indirectly expropriatory (as opposed to determine whether there was an unlawful expropriation).²³⁹

As to the second issue, namely *the scrutiny of the public purpose*, August Reinisch observes that while it is generally accepted that there is a need for the public purpose requirement, it does not encompass a big hurdle for governments, and this seems to be the general opinion among scholars.²⁴⁰ Few arbitral tribunals would assert the lack of relevance of this requirement when assessing an alleged expropriatory measure. In *Liamco v Libya*, the arbitrator Mahmassani, confronted with a claim on the requirement of public purpose, stated:

it is the general opinion in international theory that the public utility principle is not a necessary requisite for the legality of nationalization. This principle was mentioned by Grotius and other publicists, but now there is no international authority, from a judicial or other source, to support its application to nationalization. Motives are indifferent to international law, each state being free to judge for itself what it considers useful or necessary for the public good... The object pursued by it is no the concern to third parties.²⁴¹

Along these lines, in the case of *Shufeldt (US v Guatemala)*, the arbitral tribunal saw no reason for analysing the existence of a public purpose in the decree adopted by Guatemala. Contrarily, the tribunal asserted that it is 'perfectly competent for the Government of Guatemala to enact any decree they like and for any reason they see fit, and such reasons are not of concern to this tribunal'.²⁴² Likewise, in *Feldman v Mexico*, the tribunal found the requirements of public purpose and non-discrimination were of no major

disguised intent of host States, Montt suggests a number of considerations linked to proportionality, good faith and legitimate expectations, among others. See Santiago Montt, *State Liability in Investment Treaty Arbitration. Global Constitutional and Administrative Law in the BIT Generation* (Portland: Hart Publishing, 2009), 281-88.

²³⁹ See *Quasar de Valores Sicav S.A., Orgor De Valores Sicav S.A., GBI 9000 Sicav S.A., ALOS 34S.L. v The Russian Federation* (SCC No. 24/2007), Award July 20, 2012, paras 44-45, 48.

²⁴⁰ Reinisch, "Legality of Expropriations", 179.

²⁴¹ *Libyan American Oil Company (LIAMCO) v The Libyan Arab Republic, Ad Hoc Tribunal (Draft Convention on Arbitral Procedure, ILC 1958)*, Award 12 April 1977, 194.

²⁴² *Shufeldt Claim (US v Guatemala)*, Award, 24 July 1930, 2 UNRIAA 1079, 1095.

importance in the context of assessing a lawful expropriation, as long as compensation was paid.²⁴³

In contrast, in *Methanex v US*, as well as in *Saluka v Czech Republic*, the existence of a public purpose was relevant to the analysis of the claims of expropriation.²⁴⁴ The tribunals, however, did not enter into further considerations as to the merits of this requirement. This may suggest that arbitral tribunals are reluctant to enter in detailed scrutiny of the merits of the public purpose requirement, leaving ample liberty to states to assess their risks and define their policies.

In Reinisch's view, the decision in *Shufeldt* may allow for two interpretations. On one hand scholars may consider that the tribunal questions the need for a public purpose requirement altogether. On the other hand, some may consider that the arbitrator set a rather low level of scrutiny of the public purpose requirement. The majority of awards, however, allow the conclusion that the scrutiny of the public purpose is not intended to make a determination on the quality of the State's decision-making or policies. It is rather a criterion to assess whether the measure has not been implemented as a disguised act of expropriation.²⁴⁵ This work adheres to this last approach.

In the context of this Section, it is worth noting the work of Santiago Montt, who identifies a conceptual framework for expropriation, especially indirect expropriation, which is strongly linked to the public purpose. He proposes a notion of '*pre-eminent public interest*' as an exception to State's responsibility, such public ends justify the sacrifice of private interests without paying compensation. The public interest, in that case, is scrutinized from two perspectives: i) when the use of private property causes harmful effects on society, and the prohibition of its uses should not encompass the payment of compensation; and ii) when changes due to policy preferences affect the use of private property, compensation should arise.²⁴⁶ The use of this framework,

²⁴³ *Marvin Roy Feldman Karpa v. The United Mexican States (ICSID ARB(AF)/99/1)*, Award 16 December 2002, para.99. Note that the tribunal in *Feldman v Mexico* relied on the Restatement of the Law Third, the Foreign Relations of the United States.

²⁴⁴ Reinisch suggests that while *Feldman v Mexico* somehow shyly forecasted the reluctant intent to give regard to the public purpose requirement, the requirement was later spelled out in *Methanex v United States* and *Saluka v Czech Republic*. Reinisch, "Legality of Expropriations", 183.

²⁴⁵ See *Quasar de Valores Sicav S.A., Orgor De Valores Sicav S.A., GBI 9000 Sicav S.A., ALOS 34S.L. v The Russian Federation (SCC No. 24/2007)*, Award 20 July 2012.

²⁴⁶ Montt refer to these two type measures as Corrective Justice and retributive Justice. Montt, *State Liability in Investment Treaty Arbitration. Global Constitutional and Administrative Law in the*

however, in the view of Montt, would give less deference to States, turning the level of scrutiny of the public interest into a rather restrictive inquiry.²⁴⁷

This work does not adhere to the view that the exercise of the police power constitutes an exception from State responsibility for unlawful expropriation under international law, as Montt seems to suggest. To do so, would undermine and contradict the line of argument – adopted by this work – that it is possible to draw a line between legitimate (non-compensable) regulation and (compensable) indirect expropriation. However, it is relevant to reinforce the notion that harmful uses of private property may give rise to an obligation to refrain from causing harm to others. This notion goes in line with the traditional approach to the police power, which seeks to restrict some individual freedoms (to protect public health, safety and morals). Such application of the police power seems to be subject to lower levels of scrutiny, and could benefit from greater deference from arbitral tribunals. Conversely, a change in policy as a way to achieve higher standards of human and environmental development may be subject to stricter scrutiny of the invoked public interest. This scenario may prove more complicated because States would be transferring wealth from one sector to another without compensation, but aiming to raise the overall welfare of the citizens of the State. The aim of such measures may not necessarily be the termination of harmful effects of industrial/commercial activity, but the adoption of higher social standards or protection of economic sectors.

By way of analogy, one could refer to a few WTO cases. In *EC-Hormones*,²⁴⁸ for instance, the European Communities (EC) adopted measures prohibiting the use in livestock farming of certain substances having a hormonal action. In so doing, the EC sought to restrict or prohibit imports of meat and meat products from the United States and Canada. The US and Canada claimed that the measures adopted by the EC were inconsistent with the General Agreement on Tariff and Trade 1994 (GATT 1994) (Articles III or XI), the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) (Articles 2, 3 and 5), the Agreement on Technical Barriers to Trade (TBT) (Article 2) and the

BIT Generation: 281-83. Note that Montt disagrees with the introduction of the Penn Central test in the generation of BITs, such –in his example – Chile – United States BIT and the 2004 US Model BIT. He asserts: '[P]aradoxically, it seems that in investment treaties the *Penn Central* test has been introduced to restrict the extent of indirect expropriations, not to expand them.' See *ibid.*, 287-88.

²⁴⁷ *Ibid.*, 281.

²⁴⁸ *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, (*EC-Hormones*).

Agreement on Agriculture (Article 4).²⁴⁹ On appeal, the Appellate Body decided that the EC's measure were inconsistent with Articles 3.3 and 5.1 of the SPS Agreement.²⁵⁰ The EC did not bring its measures into compliance; it sought instead to show new evidence justifying the risks associated to meat and meat products from the US and Canada:

Given this perceived challenge to its sovereignty, perhaps it is not surprising that the EU has so far refused to comply with the WTO ruling in this dispute. The United States has retaliated by imposing restrictions on imports from the EU worth \$116.8 million per year.²⁵¹

The case continued with a series of subsequent disputes linked to the issue of compensation and suspension of concessions that the EC chose to bear in order to maintain higher standards of health protection.²⁵² While there exists some level of cross-fertilisation between WTO Law and International Investment Law, provisions linked to withdrawal of inconsistent measures and issues related to compensation and retaliation are different in both fields. This work suggests that, in the context of the public purpose within the broader exercise of the police power, measures may be subject to higher scrutiny and less deference, by arbitral tribunals. The *EC-Hormones* illustrates that in some cases a State may chose to transfer welfare from one sector (investor) to another sector (citizens), bearing the costs of such transfer to the benefit of the latter sector. This situation perhaps constitutes the real challenge to balancing the interests of investor and citizens of the host States.

Article 1 of the First Protocol of the *European Convention on Human Rights* comprises a 'public interest' requirement:

²⁴⁹ See World Trade Organisation, Dispute Settlement, DS 26. Available at: http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds26_e.htm, last visited July 13, 2013

²⁵⁰ In sum the EC had adopted a higher level of sanitary protection than that established by international relevant standard of the *Codex Alimentarius* (meat products). It is noteworthy that under the SPS Agreement, Members have the sovereign right to adopt measures necessary to protect human, animal and plant life or health that imply the adoption of higher standards. However, such choice requires compliance with other obligations under the SPS Agreement, such as the one to carry out a risk assessment (Article 5 of the SPS).

²⁵¹ Howard F. Chang, "Risk Regulation, Endogenous Public Concerns, and the Hormones Dispute: Nothing to Fear but Fear Itself?" *Public Law and Legal Theory Research Paper Series* Research Paper No. 39 (2003), 5. Available at SSRN: <http://ssrn.com/abstract=432220> or <http://dx.doi.org/10.2139/ssrn.432220>, last visited July 12, 2013.

²⁵² See *United States — Tariff Increases on Products from the European Communities* (Complainant: European Communities), WT/DS 39; *United States — Continued Suspension of Obligations in the EC — Hormones Dispute* (Complainant: European Communities), WT/DS 320/AB/R.

every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.

Rather than a requirement for the legality of expropriation, as is in most IIAs, the ‘public interest’ in Article 1 seems an exception to the human right to private property; under this legal framework, the public interest is balanced against the human right to private property, using a proportionality approach as a measure of the margin of appreciation to be accorded to States.

The European Court of Human Rights (ECHR) has referred to the public interest in the following terms:

because of their direct knowledge of their society and its needs, the national authorities are in principle better placed than the international judge to appreciate what is ‘in the public interest’. Under the system of protection established by the Convention, it is thus for the national authorities to make the initial assessment both of the existence of a problem of public concern warranting measures of deprivation of property and of the remedial action to be taken.²⁵³

In sum, this work revisits three approaches to the public purpose requirement, which arbitral tribunals have adopted in different contexts and times: i) the public purpose should not be a requirement: a sovereignty approach. However, this position does not exempt the host State from liability, it simply does not scrutinise the motives of the host State to adopt the regulatory measure. This approach resembles the *sole affects* approach; ii) while the public purpose is a requirement, it does not need to be highly scrutinized: a deference approach; and iii) the public purpose constitutes an essential requirement within the analysis of expropriation: strict scrutiny.

This section suggests that the level of scrutiny is - in principle - going to be set by the arguments of the parties, which might prompt the examination of the public purpose by the tribunal. This constitutes the first trigger to the tribunal’s analysis.

The level of scrutiny should be linked to the nature of the alleged expropriatory measure *i.e.* exercise of the police power *strictu sensu* or *latu sensu*, and whether the level of deprivation is significant or not.

²⁵³ *The James and Others v the United Kingdom*, 21, February 1986 (ECHR, Series A, No. 98), para. 31.

This approach may shed light on whether the arbitral tribunal should evaluate the measure within the sphere of a regulatory measure or an expropriatory measure. As the approach adopted in *Feldman v Mexico* and *Santa Elena v Costa Rica* suggest, the public purpose may lose relevance where the expropriatory measure is obvious,²⁵⁴ and compensation becomes the centre of the dispute. Stricter scrutiny of the public purpose, however, might be more adequate when the dividing line between regulation and expropriation is somewhat subtle.

In *Methanex v US* for instance, the discussion of the public purpose was not undertaken under the analysis of Article 1110 of the NAFTA, nor was there an analysis of it in the dispositive part of the Award. The tribunal simply rejected the contention by the Claimant that the government of California adopted the ban with the disguised intention to protect the ethanol market for Archer-Daniels-Midland – the largest producer of ethanol in the US – and not for a public purpose.²⁵⁵ Based on the conclusion that Methanex did not prove its claim, the tribunal appears to suggest that, conversely, the measure met the requirement of the public purpose.

In the context of the *Methanex* case, this work suggest two issues for consideration: i) the protection of public health and the environment, which could be regarded as long-term public aims, which were invoked by the defendant; and ii) an immediate or shorter-term issue of consideration, namely the protection of ground water resources, as a basis for public health and the environment. The management of California’s water resources appears to have taken into consideration principles of water law and best management practices.

The US contended that the government of California adopted its regulatory measures as founded solely on the report of the University of California, which the tribunal referred to, in some relevant parts:

9. *Water Contamination:* There are significant risks and costs associated with water contamination due to the use of MTBE. MTBE is highly soluble in water and will transfer readily to groundwater from gasoline leaking from underground storage tanks (“USTs”), pipelines and other components of the gasoline distribution system. In addition, the use of gasoline containing MTBE in motor

²⁵⁴ The author is aware, however, that the approach of the tribunal in *Methanex v United States* might suggest otherwise, since the measure had a strong economic impact on the investor and yet, the tribunal found the measure non-expropriatory.

²⁵⁵ *Methanex v United States*, Final Award Part I - Preface - Page 2

boats, particularly those using older two-stroke engines, results in the contamination of surface water reservoirs.

10. *California's Water Resources*: It is clear that California water resources are being placed at risk by the use of MTBE in gasoline. MTBE has been detected in several water supply systems, which have shut down the contaminated sources, resorting to alternative supplies or treatment. Since both groundwater wells and surface water reservoirs have been contaminated, alternative water supplies may not be an option for many water utilities. If MTBE continues to be used at current levels and more sources become contaminated, the potential for regional degradation of water resources, especially groundwater basins will increase 15. Severity of water shortages during drought years will be exacerbated. California's water resources are placed at risk by the use of MTBE²⁵⁶.

Water resources management appears to be at the core of *Methanex v United States* and would perhaps make a good case for the foundation of a public purpose in relation to this thesis. Resilience and prioritization of water resources constitute a reasonable expectation when the hydrological characteristic of the place of the investment – California – is known for being prone to water scarcity.

4.4.4.2 Non-Discrimination

The requirement of non-discrimination could be seen as a standard in itself, it is linked to the standards of National Treatment²⁵⁷ and Most-favoured Nation Treatment,²⁵⁸ which are generally included in IIAs. The purpose of this requirement was to avoid the 'singling-out of aliens on the basis of national or ethnic origin'.²⁵⁹ In the context of Article 1110 of the NAFTA, for instance, the non-discrimination requirement for lawful expropriation pertains to an under-examined sphere of the expropriation provision, as it has been hardly addressed in the NAFTA case law.²⁶⁰ Professor Higgins addressed briefly the requirement of non-discrimination, in her lectures at The Hague Academy of International Law. She explains that this requirement have been mainly

²⁵⁶ Keller *et al.*, UC Report Vol. 1, at 11 (4 JS tab 36) in *Methanex v United States*, Final Award Part III - Chapter A - 5

²⁵⁷ Non-discrimination between national and foreign investors.

²⁵⁸ Non-discrimination between foreign investors from different countries.

²⁵⁹ United Nations Conference on Trade and Development (UNCTAD), "International Investment Agreements: Key Issues Volume I", 239.

²⁶⁰ Kinnear, Bjorklund, and Hannaford, *Investment Disputes under NAFTA. An Annotated Guide to NAFTA Chapter 11*, 1110-32. Note however that in *Methanex v United States* this issue was addressed and dismissed by the tribunal.

referred to along with the public purpose requirement in the context of *bona fide regulations*.²⁶¹

As regards the scope of discrimination several authors discuss whether discriminatory measures may encompass discrimination between foreign investors; discrimination between foreign and domestic investors; or both types of discrimination. Most scholars agree that both types may result in differential treatment;²⁶² what seems to be relevant is that discrimination is generally understood as an ‘unreasonable distinction’.²⁶³ This suggests that reasonable and justified distinctions between comparable investors are likely to occur and could be considered legitimate under certain conditions.²⁶⁴

Commentators make reference to several cases where the non-discrimination requirement was given weight in deciding whether a wave of nationalizations in the oil sector was lawful or not. These tribunals concluded in a number of cases that a discriminatory taking was not unlawful, as they considered that while the states made distinctions between different investors of the same nationality, such distinctions were non-arbitrary.

For instance, in the Libyan nationalization cases, the tribunal upheld British Petroleum’s claim of discrimination. Conversely, the tribunals in the *LIAMCO* and *Texaco* cases did not find a discriminatory treatment. The *LIAMCO Award* held that:

LIAMCO was not the first company to be nationalized, nor was it the only oil company nor the only American company to be nationalized ... Other companies were nationalized before it, other American and non-American companies were nationalized with it and after it, and other American companies are still operating in Libya. Thus, it may be concluded from the above that the political motive was not the predominant motive for nationalization and that such motive *per se* does not constitute a sufficient proof of a purely discriminatory measure.²⁶⁵

²⁶¹ See Higgins, "The Taking of Property by the State. Recent Developments in International Law".

²⁶² Kinnear, Bjorklund, and Hannaford, *Investment Disputes under NAFTA. An Annotated Guide to NAFTA Chapter 11*, 1110-33.

²⁶³ Reinisch, "Legality of Expropriations", 186.

²⁶⁴ See *Restatement of the Law, Third, Foreign Relations Law of the United States, Comment (f)*. See also *Ulysseas, Inc. v. The Republic of Ecuador* (UNCITRAL), Final Award, 12 June 2012, para. 293, where the tribunal established that in order to make a finding of discrimination, it suffice that two similar situation were treated differently.

²⁶⁵ *Libyan American Oil Company (LIAMCO) v The Libyan Arab Republic, Ad Hoc Tribunal (Draft Convention on Arbitral Procedure, ILC 1958), Award 12 April 1977*, 195

Similarly, during Kuwait's nationalisations, foreign companies brought claims of discriminatory expropriation against Kuwait. The tribunal considered that Kuwait did not breach its obligation of non-discrimination by leaving out Arabian Oil from the nationalization scheme:

nationalization of Aminoil was not thereby tainted with discrimination ... First of all, it has never for a single moment been suggested that it was because of the American nationality of the Company that the Decree Law was applied to Aminoil's Concession. Next, and above all, there were adequate reasons for not nationalizing Arabian Oil.²⁶⁶

In contrast and as mentioned previously, the tribunal did find expropriatory the nationalization undertaken by Libya against British Petroleum, as the tribunal contended:

the taking of the property by the Respondent of the property ... clearly violates public international law as it was made for purely extraneous political reasons and was arbitrary and discriminatory in character.²⁶⁷

The provisions on expropriation contained in IIAs traditionally include the requirement of non-discrimination to assess the legality of an expropriation, as was addressed in Chapter III. More recently the new generation of IIAs, clarifying the provisions related to indirect expropriation, expressly reflect the principle of customary international law that the exercise of police power – *strictu sensu* – ought to be 'non-discriminatory'.²⁶⁸ Arguably, the latter may trigger a higher level of scrutiny in order to secure that the measure was not adopted arbitrarily. As regards the broader exercise of the police power – *latu sensu* – for instance the China – New Zealand FTA, provides in Annex 13 (Expropriation):

4. A deprivation of property shall be particularly likely to constitute indirect expropriation where it is either:

a) discriminatory in its effect, either as against the particular investor or against a class of which the investor forms part.²⁶⁹

Other IIAs, such as the US Models 2004 and 2012, do not refer specifically to the requirement of non-discrimination in the provisions addressing the

²⁶⁶ *Kuwait v American Independent Oil Company (Aminoil)*, Award, 24 March 1982

²⁶⁷ *British Petroleum v Libya Award*, 10 October 1973 and 1 August 1974, 53 ILR 297, 329.

²⁶⁸ See reference to the legal provisions in Chapter III, Section 3.4.2.3, *supra* note 125.

²⁶⁹ *China – New Zealand Free Trade Agreement*, 2008, Annex 13. Available at: <http://www.chinafta.govt.nz/1-The-agreement/2-Text-of-the-agreement/index.php>, last visited July 15, 2013.

broader application of the state's prerogative to regulate. However, arbitrators addressing the nature of the governmental measure – as suggested in this framework of analysis – may consider whether the measure does not discriminate between investors or between nationals and investors.

In the water resources sector for instance, distinctive measures could be regarded as discriminatory, when singling out certain users, certain industries, or certain activities. The reasonableness of the regulatory measure should be addressed considering the property rights recognised to each investor in relation to other water users, whether they are aliens or not. Several national laws provide for the obligation to reserve water flow or quantities for purposes such as human consumption or the protection of ecosystems.²⁷⁰ While it is acknowledged that national legislation shall not constitute justification for the breach of international obligations, the property rights of foreign investors as well as of nationals, competing for water resources, are going to be shaped by the national law of the host States, independently of the nationality of the user.

One should keep in mind that an integrated management of water resources involves not water only, but water in relation to land, wetlands, forests, etc. In addition, the use of water resources should also consider the sustainability of vital ecosystems.²⁷¹ It is relevant to consider that in *Methanex v United States*, the tribunal noted the different policies adopted by the government to achieve the protection of the different elements of the environment. In first instance, as stated by Methanex, California established incentives for the use of ethanol, through its Food and Agriculture Act of 1983; however, this happened many years before federal law made MTBE – produced by Methanex – a common gasoline additive. The tribunal notes, on this point:

widespread use of MTBE did not begin until after the passage of the federal Clean Air Act Amendments of 1990, requiring that the areas of the United States with sub-standard air quality use reformulated gasoline with an increased oxygen content.²⁷²

²⁷⁰ See Stefano Burchi, “Trends And Developments In Contemporary Water Resources Legislation: A Comparative State-Of-The-Art Perspective”, XIV IWRA World Water Congress Governance And Water Law Theme – Sub-Theme GL1, I, 2012, 3. (Unpublished work)

²⁷¹ Global Water Partnership Technical Advisory Committee 2000, ‘Towards Water Security: A Framework of Action’ (Stockholm: GWP, 2000), 14. As regards integrated water management see Chapter II, Section 2.4.2.1.

²⁷² *Methanex Corp. v. United States of America, (NAFTA) Final Award, 3 August 2005, Part III - Chapter B - Page 3, para. 6.*

Later, however, new scientific evidence showed that MTBE, while beneficial for the quality of air, turned out to be a risk for groundwater resources, as the leakage of the additive into the groundwater resources put at risk the sustainability of water resources and reliability of drinking water. The tribunal was convinced by the scientific evidence provided by the US,²⁷³ and thus, found no discriminatory intent against Methanex.

Some water allocation systems may provide for general mandatory duration limits for water withdrawal licences, but exclude licences for drinking water abstraction from the duration limit provisions. Additionally, the authority granting the licence may decide not to renew any type of licence except those for drinking water. In such a case, while the measure may differentiate between competing users, the nature of property rights – addressed in Section 4.4.1 – could play an important role because water permits for uses other than human consumption, could be deemed more precarious than permits for human consumption, which are not always expressly protected under domestic law. However some uses may have priority over others uses, hence enjoying some sort of protection at the domestic law level.²⁷⁴ Therefore, an investor could reasonably expect that under the domestic law of the host State water for human consumption enjoys greater protection than other uses of water resources. A question may arise as to the status of large land lease contracts signed in Africa as well as in South America, which in many cases guarantee necessary quantities of water for the success of the project.²⁷⁵ Lorenzo Cotula warns of potential conflicts among users in case of water scarcity, as it appears that current land-lease agreements grant investors better conditions in the competition for water resources. A question arises as to whether measures seeking to protect public health, safety and the environment, affect investors' interests in water so as to be considered expropriatory. The condition for this kind of measure to be deemed a lawful exercise of the regulatory prerogative, as observed in most second generation of IIAs, is that the measure should be non discriminatory. The notion of

²⁷³ *Ibid.* paras 101-102.

²⁷⁴ See the priorities set out by the Peruvian Water Act, *supra* note 20.

²⁷⁵ See Cotula provide examples of some agreements, providing water rights, for instance: 'Mali-1 grants the investor the right "to use the quantity of water necessary for the project without restrictions"'. Likewise, Sudan-1 'gives the investor the right to use the water needed for the project'. In addition, the contract Senegal 1 expressly states that no fee will be charge for the use of water resources; or other contracts such as Mali 1 remain silent as to fees for the use of water resources. See Lorenzo Cotula, *Land Deals in Africa: What is in the Contracts?* (London: International Institute for Environment and Development, 2011), 36.

discrimination acquires relevance in this context because arbitrators might need to identify similar investors or investors in similar circumstances.²⁷⁶ Therefore, investors linked the business of farming, requiring large expanses of land, would be similar investors. On the other hand, investors located in the same region under water scarcity, may be consider investors in similar circumstances.

Finally, regulatory measures of general application seeking to implement principles of water management such as IWRM or adaptive management of water resources, would probably be assessed under the broader prerogative of States to regulate, where the requirement of non-discrimination may lose relevance, precisely due to the general nature of the regulatory measure.

4.4.4.3 Due Process

The due process of law does not only constitute a requirement for lawful expropriation, it also has its own standing in customary international law, under the principle of the *minimum standard of treatment*, which was briefly addressed in Chapter III. As Coe describes, violation of judicial procedural rights or the lack of adequate judicial remedies, constitute the most common violations under due process of law.²⁷⁷ It, however, encompasses several aspects linked to the adequate flow of judicial proceedings, among which are the notions of transparency, judicial economy, good faith, etc. Not all principles are widely recognised under international law, and not all of them constitute requirements under international law. The *Panama-US Claims Commission*, in the *Sabla Case* (US v Panama), found that proceedings failed as a proper remedy for the protection of the claimant's property:

the cumbersomeness of a system which required the claimant to oppose 123 applications for cultivator's licenses, after discovering the licensees on her land prior to planting, and gave her no general remedy, is obvious.

The Commission therefore finds that the authorities should have afforded the owners of Bernardino protection, by denying applications for grants and licenses

²⁷⁶ The notion of likeness has been mostly used in the context of WTO Law to compare similar products offered in a given market, but also to compare products what were directly competitive, this not only the manufacturing and composition of the product would be taken into account but also the perception of consumers. See for instance Michael J. Trebilcock, Robert Howse, and Antonia Eliason, *The Regulation of International Trade* (London: Routledge, 2013), 138-43.

²⁷⁷ Jack J. Jr. Coe, "Denial of Justice and NAFTA Chapter Eleven The Mondev Award" *International Arbitration News* Winter/ Spring 3, no. 2 (2003), 9.

thereon, and that Panama cannot avoid liability because of the claimant's failure to oppose each application.²⁷⁸

Currently, the wording of particular IIAs plays a pivotal role in limiting the notion of due process. In fact, one may consider the scope of analysis under the fair and equitable treatment standard, which is – most likely – going to shape the requirement of due process, in the context of an assessment of indirect expropriation. The Austria-Mexico BIT, for instance, defines due process as follows:

due process of law includes the right of an investor of a Contracting Party which claims to be affected by expropriation by the other Contracting Party to prompt review of its case, including the valuation of its investment and the payment of compensation in accordance with the provisions of this Article, by a judicial authority or another competent and independent authority of the latter Contracting Party.²⁷⁹

Article 1110 (Expropriation) of the NAFTA links the requirement of due process, with the provision of Article 1105 on Minimum Standard of Treatment.²⁸⁰ Likewise, similar methodologies might be followed by other arbitral tribunals applying provisions of different IIAs (*e.g.* a requirement of due process for expropriation and a fair and equitable treatment standard). In the sphere of the NAFTA, some authors suggest that due process (Article 1110 (1)(c)) and Minimum Standard of Treatment (Article 1105)) appear to be the same requirement considered in both legal provisions. Coe and Rubins suggest that the due process requirement may not cover all the obligations under the international minimum standard, and therefore, would not enable the incorporation of Article 1105 into Article 1110.²⁸¹

It has been suggested, and well supported, that the requirement of due process, identified as the absence of adequate remedies or regulatory interferences, could also be read in connection with *mala fide* procedures and

²⁷⁸ *Marguerite de Joly de Sabla (United States) v. Panama, Reports of International Arbitral Awards, (United Nations) 29 June 1933, Volume VI, 358-370, 363.*

²⁷⁹ Article 4(3) Austria – Mexico BIT 1998.

²⁸⁰ Note that the Parties to NAFTA have adopted an interpretation of Article 1105, agreeing that the scope of the Minimum Standard of Treatment should not set a higher bar than that set by Customary International Law. Such standard has developed from the original notions given in Francesco Costamagna, "Investor's Rights and State Regulatory Autonomy: the Role of the Legitimate Expectation Principle in the CMS v. Argentina Case", *Transnational Dispute Management* 3, no. 2 (2006). The NAFTA parties have also agreed on the scope of fair and equitable treatment and full protection and security. Conversely, many other IIAs have raised the bar of the standard of treatment under customary international law in the provisions of their treaties, especially as it comes to the fair and equitable treatment standard.

²⁸¹ *L. F. H. Neer and Pauline Neer (U.S.A.) v. United Mexican States.*

their substantiation, which may result in a disguised expropriation.²⁸² In such cases, the lack of due process would be facing substantive and procedural rules, which while formally legal, may be used to implement and enforce a disguised act of indirect expropriation. In *Waste Management v Mexico*, the tribunal recognised such a possibility, but did not find grounds to affirm the existence of a disguised expropriation.²⁸³ In *ADC v. Hungary*, the tribunal provided a notion of due process in the context of expropriatory measures:

“due process of law,” in the expropriation context, demands an actual and substantive legal procedure for a foreign investor to raise its claims against the depriving actions already taken or about to be taken against it. Some basic legal mechanisms, such as reasonable advance notice, a fair hearing and an unbiased and impartial adjudicator to assess the actions in dispute, are expected to be readily available and accessible to the investor to make such legal procedure meaningful. In general, the legal procedure must be of a nature to grant an affected investor a reasonable chance within a reasonable time to claim its legitimate rights and have its claims heard. If no legal procedure of such nature exists at all, the argument that “the actions are taken under due process of law” rings hollow.²⁸⁴

Some types of investments raise high concern among citizens, governments, and the international community. In cases where national interests are at stake, such as the control over natural resources, the protection of the environment, health and safety, host States may have incentives to disguise measures towards the recovery of control and ownership of those investments.²⁸⁵ In order to so, the judicial and administrative machinery of the

²⁸² Whether one reads [Iran US Claims Tribunal] cases as addressing disguised expropriation or implicitly finding *mala fide* regulatory process, there is not much that the law of regulatory expropriation and the perspective of sustainable development can rely on: in the former case the issue addressed is conceptually different, and in the latter case the silent finding of *mala fide* provides no guidance on the relevant criteria to identify the required level and kind of treatment.’ See Jack Jr Coe and Noah Rubins, “Regulatory Expropriation and the Tecmed Case: Context and Contributions”, in *International investment law and arbitration: Leading cases from the ICSID, NAFTA, Bilateral Treaties and Customary International Law* ed. Todd Weiler (London: Cameron May, 2005), 602.

²⁸³ ‘The Tribunal has no doubt that a deliberate conspiracy—that is to say, a conscious combination of various agencies of government without justification to defeat the purposes of an investment agreement—would constitute a breach of Article 1105(1).’ See *Waste Management v. Mexico, Final Award, 30 April 2004*, para. 138. The tribunal did not find a breach of Article 1105 under those grounds, but the opinion of the tribunal gives light over the scope of due process and fair and the minimum standard of treatment.

²⁸⁴ *ADC Affiliate Limited and ADC & ADMC Management Limited v Hungary, (ICSID Case No. ARB/03/16), Award, 2 October 2006*, para. 435.

²⁸⁵ Among the various cases that could be mentioned illustrating this example, some worth of mentioning are for instance, Barcelona Traction where, while the Court did not address such issues; the obiter dictum of Judge Fitzmaurice suggested the possibility of a disguised expropriation. The other two dictums also referred to the quality of the measures, as Judge

host State may function in an arbitrary manner in order to reach this goal. It is also possible, however, that the same machinery is simply sloppy or poorly implemented, in which case the result might look identical, when the actual purpose was not a disguised indirect expropriation. This work considers that, the reference to disguised expropriation entrenches a substantial difference with creeping and constructive expropriation; while the former may generally imply the presence of the hidden intent to expropriate, the latter may or may not hide such an intention. Therefore, there may be a relationship between due process considerations and the effects and impact of the measure in regard to expropriation claims.²⁸⁶

The cases of water services supply and water resources management may be good examples of this potential situation. It is well known that there are extreme sensitivities involved in the exploitation of natural resources, perhaps even more in the provision of water services. In the *ELSI Case*, two US corporations owned and controlled the Sicilian Electronic Company, which apparently was an important source of employment for the region.²⁸⁷ Following the financial trouble of the investors, Italian authorities proceeded to acquire shares of the company below the market value. The tribunal deciding the dispute expressed:

what is thus alleged by the Applicant, if not an overt expropriation, might be regarded as a disguised expropriation; because, at the end of the process, it is indeed title to property itself that is at stake.²⁸⁸

In *Vattenfall v Germany*, the tribunal did not have to decide on the merits, due to a settlement between the parties. The background of the case, however, could be linked to the issue that even developed countries with comprehensive

Gros appears to focus his analysis in the method of the taking rather the impact of its effects. See Martins Paparinskis, "Regulatory Expropriation and Sustainable Development", in *Sustainable Development in International Investment Law*, ed. M.C. Cordonnier-Segger and A. Newcombe M.W. Gehring (Kluwer Law International, 2010), 9. See also Oscar Chinn, regarding the sensitive issue of a monopoly of transportation in river waterways, on this case, see Higgins, "The Taking of Property by the State. Recent Developments in International Law", 327-28.

²⁸⁶ In support of this point Professor. Stern argues: 'The ostensible or hidden intention of gaining the property is not always present in the process that leads to the dispossession; it can even be assumed that it is rarely present'. Stern, "In Search of the Frontiers of Indirect Expropriation", 37; Paparinskis, "Regulatory Expropriation and Sustainable Development", 6.

²⁸⁷ For an analysis of the background of the case from the perspective of behaviour of the company and regional sensitiveness. See Paparinskis, "Regulatory Expropriation and Sustainable Development", 4-6.

²⁸⁸ *Elettronica Sicula S.p.A. (ELSI) (U.S. v Italy)*, 1989 I.C.J. 15 (July 20), 200-201.

and well-functioning judicial system²⁸⁹ may face inconsistencies when dealing with sensitive resources essential to the operation of the investment. Despite the opposition of environmental and political groups, the city of Hamburg had agreed on a provisional licence in favour of Vattenfall. The local authority and interest groups disagreed on the real demand for energy, as well as some environmental issues. In 2008, when the final approval for the project was due, the city of Hamburg issued a new permit, including additional restrictions on the project in order to avoid impact on the water volume, temperature and oxygen content. In regard to the dispute that arose out of this investment: 'it is these additional measures relating to water quality in the Elbe River that appear to be at the heart of the dispute.'²⁹⁰ It is difficult to assess what the weight of the due process requirement may be in an assessment of a claim of indirect expropriation. Tribunals should be mindful of the relationship between due process and the FET. One could argue that due process is one criterion within the wider standard of FET. This work argues that in the context of the nature of the governmental measure, the due process requirement should, along with public purpose and non-discrimination, constitute an indication of the *bona fide* nature of the regulatory measure, especially to discard a disguised indirect expropriation.

4.4.4.4 Assurances Given to the Investor by the Host State: Legitimate Expectations

The principle of legitimate expectations is generally treated – in academic literature and in practice – in the context of the FET standard.²⁹¹ This, nonetheless, has not precluded various tribunals from addressing the principle in the context of indirect expropriation claims, as the reasonableness

²⁸⁹ This thesis refers to comprehensive judicial systems as the law in books. Increasing number of states have adopted very well developed rule of law and have set strong institutions to implement and enforce such systems. Whereas reference is made to functioning judicial systems as the law in action, where the human capacity operating the institutions is not well developed, is insufficient or corrupt.

²⁹⁰ Muchlinski, "'Caveat Investor'? The Relevance of the Conduct of the Investor under the Fair and Equitable Treatment Standard", 541-542.

²⁹¹ '[A]s might be the case with a manifest failure of natural justice in judicial proceedings or a complete lack of transparency and candour in an administrative process. In applying this standard it is relevant that the treatment is in breach of representations made by the host State which were reasonably relied on by the claimant *Waste Management, Inc. v. The United Mexican States*, ICSID Case No. ARB(AF)/00/3, Award of 30 April 2004, para. 98. In the same vein see *Bayindir v Pakistan*, para 252.

of an investor's expectations constitute an important element for a legitimate regulation versus indirect expropriation.²⁹²

Assurances, given to foreign investors by host States, signal the political, financial and regulatory stability of the legal system the potential investor is entering into. In addition, assurances provide investors with the necessary incentives to undertake the investment project in a given country. However, as Peter Muchlinski warns in his article *Caveat Investor*:

it may be said that the fairness of such regulatory conduct towards investors cannot be judged without also assessing the conduct of investors towards the community on behalf of which the State may act.²⁹³

Legitimate expectations, therefore, cannot be derived only from the 'subjective expectations of the investor', they ought to be assessed against the social and political environment of the host State at the moment of the investment. This was the approach of the tribunal in *EDF v Romania*.²⁹⁴ In this vein, the element of reasonableness seems of pivotal importance to the notion of legitimate expectations:

the assessment of the reasonableness or legitimacy must take into account all circumstances, including not only the facts surrounding the investment, but also the political, socioeconomic, cultural and historical conditions prevailing in the host State.²⁹⁵

In the context of indirect expropriation, legitimate expectations constitute an important element, which may provide some light in finding the dividing line between indirect expropriation and non-compensable regulation. This has been the approach adopted in other areas of law such as European Union (EU) Law, the European Court of Human Rights and the US Constitution's Takings

²⁹² Nathalie Bernasconi, "Background paper on Vattenfall v. Germany Arbitration," (Winnipeg: International Institute for Sustainable Development (IISD), 2009), 1; Rudolf Dolzer and Christoph Schreuer, *Principles of international investment law*, 2nd ed. (Oxford: Oxford University Press, 2012), 115; August Reinisch, "Expropriation", in *The Oxford handbook of international investment law*, ed. Peter Muchlinski, Federico Ortino, and Christoph Schreuer (Oxford; New York: Oxford University Press, 2008). See for instance *Methanex v United States*.

²⁹³ Markus Perkams, "The Concept of Indirect Expropriation in Comparative Public Law - Searching for Light in the Dark", in *International investment law and comparative public law*, ed. Stephan Schill (Oxford; New York: Oxford University Press, 2010). See also de analysis of arbitral tribunals in *Azurix Corp. v Argentine Republic*, ICSID CASE No. ARB/01/12, Award July 14 2006, paras 316-323; *Methanex Corp. v. United States of America*, Final Award (NAFTA), 3 August 2005, Part IV - Chapter D.

²⁹⁴ *EDF (Services) Limited v Romania*, ICSID Case No. ARB/05/13, Award October 8, 2009, para. 219.

²⁹⁵ See *Duke Energy Electroquil Partners & Electroquil S.A. v. Republic of Ecuador*, (ICSID Case No. ARB/04/19), Award 18 August 2008, paras 340, 351-352.

Clause.²⁹⁶ In the specific case of investment arbitration, the *Methanex* tribunal rejected a claim of expropriation by stating:

as a matter of general international law, a non-discriminatory regulation for a public purpose, which is enacted in accordance with due process and, which affects, *inter alios*, a foreign investor or investment is not deemed expropriatory and compensable unless specific commitments had been given by the regulating government to the then putative foreign investor contemplating investment that the government would refrain from such regulation.²⁹⁷

In the award, the tribunal reminded Methanex – the claimant - of the nature of the market it had entered into, when it chose to invest in the US. It stressed that the US was notorious for the manner in which media, citizens and organizations would scrutinise the use of ‘chemical compounds’, especially those posing a threat to the environment and health. It further stated that this type of public scrutiny was not different from that in Methanex’s home State – Canada - and that Methanex had actively participated in such processes at home.²⁹⁸

Currently, it seems debatable whether the legal system of the host State, as it was at the moment of the investment, would solely provide legitimate expectations to the investor. That would mean to assume that the State’s legal system would remain unchanged; thus, unable to develop or improve, or tackle unforeseen challenges. This view appears to be favoured by the arbitral tribunal in *Electrabel v Hungary*:

while the investor is promised protection against unfair changes, it is well established that the host State is entitled to maintain a reasonable degree of regulatory flexibility to respond to changing circumstances in the public interest. Consequently, the requirement of fairness must not be understood as the

²⁹⁶ The principle of legitimate expectations under Community Law was address for instance in *CIRFS v the Commission, Case C313/90, 1993 ECR I-1125*; *Ijssel Vliet v Minister van Economische Zaken, C-311/94, 1996 ECR I-5023*; *Mulder v minister van Landbouw and Visserij Case 120/86, 1998 ECR 232*, among others. The ECHR has addressed the principle of legitimate expectations in the context of Article 1 of the First Protocol of the ECHR in *Pine Valley Developments Ltd and Others v Ireland, Judgment, 29 November 1991*, ECHR Series A, No 222 and *Baner v Sweden*, App No 11763/85, Decision, 9 March 1989, DR 60, 128., as cited by Muchlinski, "Caveat Investor'? The Relevance of the Conduct of the Investor under the Fair and Equitable Treatment Standard", 534. *Fredin v Sweden Judgment*, 18 February 1991, ECHR Series A, No 192, para. 54. Finally, the US Supreme Court included the principle of investment-backed expectations in its often used test of Penn Central: a) economic impact of the regulation, b) interference with distinct investment-backed expectations, and c) the character of the governmental action.

²⁹⁷ *Methanex Corp. v. United States of America, Final Award (NAFTA), 3 August 2005*, Part IV - Chapter D - Page 4, para. 7.

²⁹⁸ *Ibid.*, Page 4, para. 9.

immutability of the legal framework, but as implying that subsequent changes should be made fairly, consistently and predictably, taking into account the circumstances of the investment.²⁹⁹

In this regard, and as explained in Chapter II, it is increasingly accepted that water management requires more flexible regulation, enabling water authorities to deal with growing demand for water resources, in the face of water scarcity and increased hydrological variability as an effect of climate change.

Should a more restrictive approach to legitimate expectations require specific commitments, representations and assurances by the host State that a regulatory environment would remain unchanged?³⁰⁰ While the tribunal in *Methanex v United States* appears to suggest such an approach, a majority of tribunals have seen such an approach as restrictive. The tribunal in *Electrabel v Hungary* has summarised this position by stating that although specific assurances by the host State ‘may reinforce the investor’s expectations, such an assurance is not always indispensable’. Specific assurances may provide evidence of the information available to the investor and the reasonability of such expectations.³⁰¹

Governments providing specific assurances of an unchanging legal environment ought to be aware of the level of commitment they acquire. In this vein, the sector and the related environment under which the investment is taking place is of great relevance. For instance, it is general knowledge that the protective approach that Canada has adopted toward its water resources requires the State’s very strict scrutiny over the management of such resources.³⁰² Under such circumstances, it could be argued that investors under the NAFTA and several other IIAs, may have a weak case if they did not

²⁹⁹ *Electrabel S.A. v The Republic of Hungary*, ICSID Case No. ARB/07/19, Award on Jurisdiction, Applicable Law and Liability, November 30, 2012, Part VII – Page 21, para. 7.77

³⁰⁰ This was the position adopted in *Methanex v United States*. See also *Glamis Gold, Ltd. v. United States of America*, Award under UNICTRAL Rules, June 8, 2009, para. 811:

‘Whether these expectations were reasonable or not is not an inquiry that the Tribunal need make[...]. The inquiry, as explained above, is solely whether California, or the federal government, made specific assurances to Claimant that such a requirement would not be instituted in order to induce Claimant’s investment in the Imperial Project.’

³⁰¹ *Electrabel S.A. v The Republic of Hungary*, ICSID Case No. ARB/07/19, Award on Jurisdiction, Applicable Law and Liability, November 30, 2012, Part VII – Page 22, para. 7.79

³⁰² The 1993 Joint Statement by the Governments of Canada, Mexico and the United States; *Sun Belt v Canada* (settled); *Gallo v Canada*; *Clayton/Bilcon v Canada*; *AtibiBowater v Canada*. <http://www.globalresearch.ca/canada-losing-water-through-nafta/6859>; *COFFIN Our water Canada* (see file my documents/ water and industry; <http://www.canadians.org/media/trade/2011/08-Mar-11.html>

reasonable foresee a highly sensitive environment regarding the integrated management of Canadian water resources, which may potentially have an effect over the investor's water entitlements. Such cases may well justify the requirement of specific assurances from Canada, as a host State, regardless of the level of development of the Canadian legal system.

The tribunal in *Electrabel v Hungary* addressed claims of expropriation and breach of the FET standard, due to alleged conflict of laws between the Energy Charter Treaty (ECT) and EU law in the area of competition in the electricity sector. The tribunal concluded that Hungary's accession to the EU suggests necessary changes in policy and harmonization of the regulatory system. Moreover, the tribunal held that the ECT and EU law were not contradictory with regard to anti-competitive practices, and for this reason:

[f]oreign investors in EU Member States, including Hungary, cannot have acquired any legitimate expectations that the ECT would necessarily shield their investments from the effects of EU law as regards anti-competitive conduct.³⁰³

Finally, tribunals could take into account the perverse incentives that poor regulatory environments may have given to investors, as result of a 'race to the bottom', seeking to attract investment. Such investments may have allowed high profitability for the project, but little economic development to the host State. While this is an issue of good governance within the host State rather than a problem to be assessed by international law, it is undeniable that such an issue has had negative effects over investors' interests. While the developed/developing country or North/South debates are outside the scope of this work, it has been suggested that the social and political environment of host States should be given a great deal of attention. For instance: i) conflicts arising from competition for resources between communities within the host State, ii) conflicts between governments and communities regarding environmental and social policy, and iii) issues under extensive scrutiny by NGOs and the international community, may give investors clear signals as to the stability of the legal order in the prospective host State.

In the area of water resources, the growth of foreign investment in large areas of land in Africa and Latin America for food and fuel production has come to

³⁰³ *Electrabel S.A. v The Republic of Hungary, ICSID Case No. ARB/07/19, Award on Jurisdiction, Applicable Law and Liability, November 30, 2012, Part IV – Page 44, paras 4.122 - 4.141*

be widely criticised.³⁰⁴ It is also known that such production is intensive in water utilization, with an effect of increasing demand for water resources in times of scarcity. It might be expected that current regulatory frameworks may change in the future in the face of new water management demands. It follows that such modifications in legislation are likely to affect the property rights of investors, either with respect to water entitlements or with respect to the use of land. The reasonableness of investors' expectations may play a relevant role in deciding such cases, along with due process and non-discrimination principles.

4.5 Conclusions

The framework of analysis developed in this Chapter is inspired by a number of methodologies proposed to address measures of indirect expropriation and identify them from legitimate regulation. In fact, the most important contribution of such methodologies has been to acquiesce that there exists a dividing line between non-compensable legitimate regulation and compensable indirect expropriation. Such acquiescence could first be identified in the academic literature, and some international organisations such as the OECD and UNCTAD, as referred to in Chapter III.³⁰⁵ It should be noted that arbitrators also have an important role in the interpretation of IIAs, as the applicable law under an investment dispute. It follows that the combination of arbitrators within a tribunal and the dynamics among the group of arbitrators also play a role in the application of different analytical frameworks to distinguish indirect expropriation from legitimate regulation.

This perceived interference with the States' prerogative to regulate could be one of the reasons of the legitimacy crisis in investment arbitration. Although some commentators contend that this problem is more perceived than real, the issue gave rise to a real problem of legitimacy, when several States withdrew from the ICSID Convention,³⁰⁶ and some others reconsidered

³⁰⁴ Smaller and Mann, "A Thirst for Distant Lands: Foreign Investment in Agricultural Land and Water"; Allan et al., *Handbook of Land and Water Grabs in Africa: Foreign Direct Investment and Food and Water Security.*; Cotula, *Land Deals in Africa: What is in the Contracts?*

³⁰⁵ See Chapter III, Section 3.5.2

³⁰⁶ Bolivia, Ecuador, Venezuela

whether to continue using the investor-State dispute settlement mechanism.³⁰⁷

Perhaps influenced by the academic literature, several States narrowed down the discretion of arbitrators in the interpretation of expropriation provisions, stating definitions and guidance to the assessment of indirect expropriation. The provisions on indirect expropriation – embedded in a new generation of IIAs – sought to protect States' regulatory prerogatives.

However, as suggested by Professors Lowe and Paulsson, even with new provisions on indirect expropriation, it would be difficult to draw the dividing line between indirect expropriation and legitimate regulation. This on-going debate justifies the proposal of a framework of analysis, seeking to provide States and investors with predictability of the investment dispute mechanism. While, it is undeniable that disputes can only be solved according to the facts and context of each case, it is also true that specific issues of global concern – such as water resources – should be treated consistently. In this case, the criteria included in the analytical framework allow addressing challenges around water resources *e.g.* physical, geographical, economic and social. These challenges underpin common concerns linked to climate change, increasing hydrological variability, and growing sensitivities and public participation towards water as a common good. In sum, this Chapter concludes that water has a special nature, which allows for specific analysis through each criterion – or at least most of the criteria – contained in this framework of analysis.

The analytical framework considers a three-fold analysis: a first stage, during the jurisdictional phase, addressing the nature of water property rights and the scope of their protection under IIAs. The second stage, at the merits phase, encompasses a quantitative analysis, which assess the level of interference and economic deprivation that the governmental measure has over the investment. Finally, the third stage (also undertaken at the merits phase) encompasses a qualitative analysis of several elements directly linked to the nature of the governmental measure, such as the public purpose of the nature, its non-discriminatory character, the due process of law and the investor's legitimate expectations.

³⁰⁷ Australia, South Africa, the European Union.

The physical nature of water resources *i.e.* its fugitive character and lack of substitutes, becomes relevant for the analysis of the two components of the first stage of the analytical framework, namely the nature of water rights and the definition of investment. The first criterion suggests that the determination of the existence of a water right, considering the physical nature of water and the rules on ownership and use might conclude that water entitlements have a precarious nature. This consideration emerges from the fact that water resources - generally - are not private property and availability is uncertain. Finally, without entering into specific discussion about the human right to water, this Chapter asserts that human consumption could be guaranteed, as most domestic legal systems give preponderance to it. Therefore, from a property rights perspective, investors' water entitlements would be limited through a holistic application of the domestic legislation. It follows that such limitation is inherent to investors' water entitlements and ought to be considered in this light by investment tribunals.

Likewise the nature of water resources plays an important role in the considerations of the second component of the first stage (definition of investment). This section concludes that it is unlikely that, in the context of an infrastructure investment, water would be considered as a discrete right. There exist persuasive precedents, which suggests that affected water entitlements would be addressed in the context of the investment, under the unity of investment approach. This could be seen as a negative prospect for host States, as regulatory measures directed to one stick of the bundles of investment rights, could be deemed expropriatory of the whole investment. This is a reasonable consequence of the weight of certain elements of the investment project - such as water resources - which brings the investor to a host State for that specific purpose.

Section 4.4.3 constitutes the second stage of the analytical framework. It addresses a set of inquiries, which - in practice - may not be expressly undertaken by investment tribunals in an arbitral award. It is, however, of relevance to do so - in the context of this thesis - in order to follow a set of argumentative steps that would lead to some conclusions: i) the level of deprivation will be addressed in the context of the investment project as a whole; ii) previous decisions are persuasive that the notion of *substantial* ought to be equivalent to a direct expropriation; iii) however, the elements of *control* over the investment and *duration* of the deprivation play an important

role to determine whether the investor can still enjoy its rights over the investment; iv) the nature of water resources – once more – plays an important role in the determination that deprivation could often be total, if a regulatory measure deprives the investor of the necessary quantities.

In both cases, the lack of substitutes for water resources and its importance for the development of most investment projects, lead to preliminary conclusions as to the effects of the water entitlement over the overall project. Note however, that this is not conclusive of the presence of indirect expropriation.

Finally, the third stage of the analytical framework undertakes a qualitative analysis into the nature of the governmental measure. The components of this stage of analysis, being public purpose, non-discrimination, due process and investor's legitimate expectations, appear to be less linked to the physical nature of water resources. The criteria considered in the qualitative analysis seem to be linked to the social and economic nature of water resources. In this vein, the public purpose and legitimate expectations are of particular interest, because they better reflect the exercise of the police power *strictu sensu* in the context of the protection of the public health, safety and the environment, and *latu sensu*, which pertains to a much broader spectrum of regulatory measures. The classification of water related measures over quantity and quality, suggests that generally, although not always, measures over water quality would be linked to the police power *strictu sensu*, whereas measures over quantity would be linked to the police power *latu sensu*. An exception, which has been clearly identified, is the adoption of regulatory measures intended for human consumption.

This work observes that it seems unlikely that arbitral tribunals may be confronted with cases where the level of deprivation amounts to expropriation. Yet, it considers that measures over water resources could be such case. For this reason, even when the first tier analysis *i.e.* the level of deprivation, concludes that it is substantial or total, the second tier analysis would further assist to determine whether an indirect expropriation has occurred.

CHAPTER 5 CONCLUSIONS

5.1 Introduction

The physical, social and economic characteristics of water when approached in a holistic manner demand that this natural resource be viewed as unique. There are a number of defining features that require water to be viewed through such a lens: i) water's physical features make it both unpredictable and variable, ii) water's intrinsic value is rarely reflected in its price, even when it has no substitutes, and iii) water's socially sensitive status (and vital requirement for living) is such that people perceive it as a resource to which they are entitled. This basic reflection on the unique attributes of water leads one to question whether investment arbitration tribunals ought to incorporate an evaluation of this uniqueness when tasked with determining claims of indirect expropriation that involve a water-related regulatory measure. In the context of water-related regulatory measures, investment arbitration tribunals will be required to determine the distinction between a legitimate regulatory measure and an indirect expropriation. In terms of guidance that can be gleaned from the analysis in this work, investment arbitration tribunals ought to consider a number of key features when evaluating a state's water-related regulatory measure against the standards of protection provided in the applicable international investment agreement.

5.2 A Sector-Specific Approach

This section summarizes the argument developed throughout the thesis with a focus on the findings in Chapter IV in the context of the sector specific approach to water related measures.

- 1) *A sector-specific approach to water resources require first that parties invoke the unique nature of water resources, and second that investment arbitration tribunals inquire into the specific object and purpose of the water-related measure before evaluating whether the regulatory measure negatively affects the interests of the investor-claimant.*

This first criterion discussed in the analytic framework of this work – detailed in Chapter IV – will assist in framing the analysis of claims of indirect expropriation in the context of regulatory measures aimed at affecting water

quality or water quantity. While there are few cases to date that deal with water-related regulatory measures, it is the contention of this work to demonstrate that the cases that have arisen were evaluated inappropriately. None of these tribunals, except for the tribunal in *Bayview Irrigation District v Mexico*,¹ have approached a water-related regulatory measure through the lens of a sector-specific approach, which would look at water as a unique resource that demands a special set of tools for evaluation. A key example of this absence of a sector-specific approach is the case of *Methanex v US*,² which has been discussed extensively in this work in regard to issues of expropriation in international investment law.³ In this case, the arbitral tribunal found that the regulatory measure adopted by the State of California, a ban on the gasoline additive known as MTBE (methyl tertiary-butyl ether), did not breach US investment obligations under the NAFTA. As explained in Chapter IV, it is quite likely that water-related measures will be adopted through laws and regulations other than water laws.⁴ In *Methanex v US*, this is exactly what happened. California adopted a measure that would ban the use of MTBE because of its potential pollution of the ground water supply. While the outcome of this case did find that the ban on MTBE was a legitimate regulatory measure and not an indirect expropriation, the analysis failed to look specifically at the object of the regulation: the protection of groundwater resources. Instead, the Methanex tribunal spent considerable time evaluating whether the regulatory measure was applied in a non-discriminatory manner. Instead of asking whether it was legitimate to impose a regulatory burden for the purpose of water pollution prevention (regardless of its effects on any investor), the tribunal focused on whether the regulatory measure was applied in a non-discriminatory manner (*i.e.* whether the measure also affected other producers of MTBE or other investors in 'like' circumstances). The fact that the tribunal did not focus on the object of the regulatory measure can be partially attributable to the claims that Methanex made to the tribunal. It appears that the approach taken by Methanex in this case was aimed at demonstrating that the National Treatment standard of the NAFTA⁵ was

¹ *Bayview Irrigation District et al. v United Mexican States, ICSID (Additional Facility) Case No. ARB(AF)/05/1*, Award June 19, 2007.

² *Methanex Corp. v United States of America*, Final Award (NAFTA), 3 August 2005.

³ See Chapter III, Sections 3.6.2 and 3.7, which discusses the case of *Methanex v US* in the context of the Police Power.

⁴ See Section 4.3.2, *supra* note 32.

⁵ Methanex asserted its claim of breach of the national treatment standard under NAFTA Article 1102 (3), which provides: '3. *The treatment accorded by a Party under paragraphs 1 and 2 means, with respect to a state or province, treatment no less favorable than the most favorable*

breached because the State of California was discriminating against methanol producers as a means of promoting ethanol producers (which Methanex claimed were substitutable products).

The above illustration is relevant to the application of the first part of the analytical framework described in Chapter IV (Property rights in water and the Definition of Investment) for two key reasons. First, the Methanex case demonstrates that the application of some criteria, such as non-discrimination and due process – for instance – are not always going to be evaluated through an analysis of standards contained within the expropriation standard itself (*e.g.* in the Methanex case, the non-discrimination standard – which is a part of the expropriation standard – was evaluated in the context of the National Treatment standard).⁶ In this vein, the findings in regard to the assessment of other standards could inform the tribunal’s determination about the nature of the regulatory measure. Secondly, investment disputes have reached a high level of complexity, where social, economic and political aspects are intimately intertwined. Nonetheless, this work submits that the parties are ultimately the framers of the debate that informs the final arbitral award. For example, Methanex could have argued whether or not the MTBE ban was the proper measure (or least restrictive measure) to protect groundwater resources in the State of California. This would have shifted the analysis towards the object and purpose of the regulatory measure instead of whether the measure was discriminatory and in contravention of the National Treatment standard in the NAFTA.

The above discussion of the Methanex decision sought to highlight two key issues in relation to investment arbitrations and water-related regulatory measures. The first issue pertains to the importance for tribunals in focusing on the essential nature (its object and purpose) of the regulatory measure,

treatment accorded, in like circumstances, by that state or province to investors, and to investments of investors, of the Party of which it forms a part.”

The claimant Methanex argued that under Article 1102 NAFTA ‘California and thereby the USA plainly intended to deny foreign methanol producers, including Methanex, the best treatment it has accorded to domestic *ethanol investors*, thus violating Article 1102’ (emphasis added). See *Methanex Corp. v United States of America, Final Award (NAFTA)*, 3 August 2005, Part II - Chapter D - Page 9, para. 26.

⁶ See for instance the expropriation provision in Article 1110 of the NAFTA which in regard the requirement of due process of law states: ‘No Party may directly or indirectly nationalize or expropriate an investment (c) in accordance with due process of law and Article 1105(1)’. This provision directs the assessment of whether there was compliance with the requirement of due process to the standard of Minimum Standard of treatment under Article 1105 of the NAFTA.

rather than discussions on peripheral issues arising out of the dispute, to bring some benefits to the overall process of analysis. This should be done regardless of the parties' submissions, which certainly ought to be addressed. In many cases, the arbitrators focus primarily on the claims made by the claimants and the defences brought by the State respondents. However, given the public nature of water-related measures, it is equally important that arbitral tribunals create their own framework of analysis when assessing water-related measures given its unique nature and public importance. The second issue pertains to the importance of tribunals being clear in their legal reasoning. For example, clearer legal reasoning would allow the parties to the dispute – and the public – to follow the logical steps that led to the arbitral decision.⁷ Indeed, the tribunal in *Methanex v US*⁸ says little in regard to the appropriateness of the measure to protect groundwater in the State of California in order to achieve health and environmental objectives. The inclusion of all logical steps embedded in the reasoning of the arbitral award will provide greater transparency to the dispute settlement mechanism in general, which can assist in fostering increased predictability in the investment arbitration overall. After all, the numerous actors linked to this dispute settlement mechanism appear to value consistency across arbitral decisions.⁹ The first stage of the analytical framework in Chapter IV (discussed above), is meant to be applied prior to the analysis of the merits of the case. It is relevant to the case of water resources because, as is submitted in this

⁷ Professor Lalive citing Sir Frank Berman who referred to concept of lack of reasoning in the case of *Lucchetti v Peru* as follows: 'the requirement that an award has to be motivated implies that it must enable the reader to follow the reasoning of the Tribunal on points of fact and law ... the requirement to state reasons is satisfied as long as the award enables one to follow how the Tribunal proceeds from Point A to Point B and eventually to its conclusion, even if it made an error of fact or law. See Pierre Lalive, "On the Reasoning of International Arbitral Awards" *Journal of International Dispute Settlement* 1, no. 1 (2010), 59. See also *Industria Nacional de Alimentos SA (Lucchetti) v the Republic of Peru, Decision on Annulment*, 5 September 2007. In this vein Professor Reisman criticises the extensive analysis (355 single-spaced pages) afforded by the tribunal in *Glamis Gold, Ltd. v United States of America, (under UNICTRAL Rules), Award June 8, 2009*. Professor Reisman contends that arbitral awards should communicate its reasoning in clear and succinct manner. Reisman, "'Case Specific Mandates' versus 'Systemic Implications': How Should Investment Tribunals Decide? - The Freshfields Arbitration Lecture", 137.

⁸ The approximate page count in *Methanex Corp. v. United States of America, Final Award (NAFTA)*, 3 August 2005, is 307, where Professor Reisman was a member of the tribunal.

⁹ UNCTAD annual report on investment and dispute settlement notes: '*Consistency of arbitral decisions*. Recurring episodes of inconsistent findings by arbitral tribunals have resulted in divergent legal interpretations of identical or similar treaty provisions as well as differences in the assessment of the merits of cases involving the same facts. Inconsistent interpretations have led to uncertainty about the meaning of key treaty obligations and lack of predictability as to how they will be read in future cases.' (UNCTAD), "World Investment Report 2013. Global Value Chains: Investment and Trade for Development", 112.

work, the inherent nature of the resource under analysis will play a pivotal role in the construction of the property rights conferred to the foreign investor by means of a licence, a concession, an entitlement, etc. The second and third stages of analysis (discussed in the following two sections) pertain to the specific determination of whether the regulatory measure constitutes an indirect expropriation or a legitimate regulation.

Chapter II has provided an extensive account of the nature of water resources, as part of a unity, namely the hydrological cycle, and why some of water's unique features have had an effect on the way in which the ownership of water is embedded in most legal systems. Indeed, in such systems, the ownership of water is either vested in no one or in the State under stewardship. It follows from this special situation about property rights in water that such rights are not an absolute right. The hydrological cycle –as contested in Chapter II – is becoming increasingly unpredictable, and therefore entitlements linked to water resources could be deemed predictably insecure. The latter is of course a conceptual approach to the current challenges around water resources rather than a statement of a fact.

The first stage of analysis therefore, proposes a holistic approach to the historical context that informs the legal frameworks regulating water resources, as well as other frameworks that influence the management of water resources and its different uses.

One such condition over the use of water that intertwines with other uses is the priority given to human consumption in most legal systems. In this vein, a construction of an investor's property rights might already be derogated under the domestic legal system of the host State where there is priority given to human consumption over industrial or agricultural consumption.

2) A sector-specific approach to water-related regulatory measures does not negate the fact that there are certain instances where a measure could be deemed expropriatory (in other words, the analytical framework detailed in this work does not make the case that all water-related regulatory measures should be deemed legitimate regulation as opposed to expropriations).

The second stage of the analytical framework – detailed in Chapter IV – namely the level of deprivation, requires the inclusion of several hypothetical scenarios, which allow tribunals to determine in which cases a water measure

could be equated to a direct expropriation. In these cases, as opposed to indirect regulatory expropriations, the answer in a great majority of cases – especially those linked to the reallocation of water resources – is that a measure relating to water quantity reallocated could certainly be deemed expropriatory.

In spite of all other means of production untouched, the lack of water resources as an input for production could affect the whole operation in a manner that would render the project useless or unviable. For this reason, Section 4.4.3.2 tests different approaches to the reduction or cancelation of water entitlements. Certainly, there is an argument that the cancellation of a water entitlement, while only constituting one stick in the bundle of the investment rights given to a foreign investor, is so essential to the project that its cancellation renders the whole investment useless. This would be the approach taken by many investment tribunals under the unity of investment approach. On the other hand, a water entitlement – affected by a specific measure – could not be analysed under an approach of partial expropriation, since it could not be exploited as an independent asset, separated from the rest of the bundle of investment rights. As such, a water entitlement serves the functioning of the whole operation and is therefore unlikely to be analysed independently of the entire investment. This means that there is always the possibility that a reallocation of water resources by a regulatory measure could give rise to an expropriation finding over the whole operation. The worst-case scenario would probably be the case in which the duration of the measure is extensive and permanent, in such scenario the conclusion might be that the effects over the investment are tantamount to a direct expropriation. It is important to consider that, in many situations it is the physical nature of water that leads to such results, and not necessarily the intent or nature of the regulatory measure. Otherwise, the analysis of the issue would always lead to such a result, turning every measure linked to water resources management expropriatory. This would undermine the doctrine of the police power of States to seek the general welfare limiting the liberties of individuals, imposing the burden of water variability risk solely on the host States, and ultimately on its citizens.

- 3) *A sector-specific approach to water-related regulatory measures requires that arbitral tribunals scrutinize both the legitimacy and legality of the water-related measure.*

The third stage of the analytical framework – addressed in Chapter IV – assess the quality and nature of the measure. Its main objective in the context of the proposed framework is to determine when a regulatory measure constitutes a disguised act of expropriation. There may be cases where a government measure should be deemed expropriatory. These are the cases when it can be demonstrated that the adoption of a particular measure lacks good faith. In these cases, a discriminatory measure disguised as an environmental measure could be deemed expropriatory if it can be shown that the object and purpose of the water-related measure was not taken in good faith. Such instances would, almost by default, be deemed expropriatory. The element of good faith of the governmental measure requires scrutiny in cases when a host State claims that a water-related measure has been adopted strictly in face of water stress or to maintain the quality of the resource, but further evidence reveals that this was not in fact the primary purpose of the water-related measure.

In regard to the analysis concerning the quality and nature of the measure and the level of scrutiny that arbitral tribunals ought to use in evaluating such measures, preeminent arbitrator Professor Brigitte Stern, holds that there are three basic approaches for qualitatively assessing a regulatory measure in the context of an expropriation claim. The first approach is what is commonly referred to as the sole effects approach. Under this approach, the effect of the measure on the investment is the exclusive means of evaluating whether a measure has an expropriatory effect. In essence this approach rejects the application of the qualitative stage embedded in the analytical framework, *i.e.* the analysis of the nature of the regulatory measure.

The second approach is what is commonly referred to as the police powers approach. This approach is in contradistinction to the sole effects doctrine. In essence, arbitrators assess the police power as a defence for alleged violations of the expropriation standard under the investment treaty. This approach seems to support the position that States should regulate in the public interest regardless of negative effects on investor's property rights. In this vein the exercise of the police power as an exception to State responsibility resembles GATT provisions such as Article XX (General Exceptions) and the India – Singapore Economic Cooperation Agreement, Article 6.11 (General Exceptions)¹⁰. While the wording of the agreement is of pivotal importance, a broad interpretation of expropriation standard could have such an outcome in

¹⁰ See Chapter IV, Section 4.2.

the near past. Under this approach it is not difficult to imagine why the police power approach would have opponents. With the increase of investment disputes, such an interpretation appears to be unlikely nowadays, unless the agreements expressly provide that the exercise of the prerogative to regulate to protect the environment, public health and safety constitute an exception.

The third approach, which is advocated in this work, considers that it is possible to derive a dividing line between an indirect expropriation and a legitimate regulation. Therefore, in order to apply such an approach, the second stage of analysis under the analytic framework detailed in Chapter IV – level of deprivation – would conclude that even where the effects of the measure over the investor have been substantial (and thus expropriatory under the sole effects doctrine), a measure can still be deemed a legitimate regulation according to the nature and quality of the measure. This third approach for accessing the dividing line between a legitimate regulation and an expropriation includes an element of proportionality in the broad sense of the term. This is because in accessing the nature of the measure, the third stage of analysis in the analytic framework in Chapter IV requires an evaluation of the measures public purpose, non-discrimination, due process and legitimate expectations. These aspects of the analysis are intended to determine the legitimacy of a particular regulatory measure.

4) A sector-specific approach to water resources requires that tribunals be sensitive to the underlying social aspects relating to measures affecting water resources.

In addition to the three areas of analysis that arbitrators must consider under the framework advocated in this work, they must also look at the policy aspects of a water related regulatory measure and sensitivity in having international adjudicators evaluating water-related measures legitimately adopted by a particular host State. In this context, it is noteworthy that most investment disputes linked to water management related measures have been settled between the parties.¹¹ Unfortunately, this has not allowed the observation of the extent to which arbitral tribunals would give deference to

¹¹ See *Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany*, (ICSID Case No. ARB/09/6); *Sun Belt v Her Majesty the Queen (Government of Canada)*, (NAFTA Chapter 11, under UNCITRAL Rules); *Impregilo S.p.A. v. Islamic Republic of Pakistan*, (ICSID Case No. ARB/03/3); *AbitibiBowater Inc., v. Government of Canada*; *Aguas del Tunari S.A. v Republic of Bolivia*, ICSID Case No. ARB/02/3.

the exercise of regulatory prerogatives over water resources. Whether this aspect is coincidental or direct, one could argue that once a tribunal adopts a position over the regulation of water rights or the appropriateness of host States' water management, a precedent could be created with large consequences for both host States and foreign investors. Note, however, that the payment of settlements is generally the equivalent to a win for the investor-claimant and that this fact places the burden of risk and costs in regard the protection of its water resources on the host State.¹² Perhaps, this cautious approach seeks to keep Pandora's box closed. This is because there is considerable risk associated with massive public opposition and advocacy that may arise when (and if) an arbitral tribunal finds that a water-related regulatory measure is an indirect expropriation that requires the host State to compensate a foreign investor for what it believes is a legitimate regulation of its water resources. These issues reflect the social context of water resources, and the potential conflicts it brings. Chapter II illustrated a handful of investment disputes arising out of investments in water services that showed the level of sensitivity and entitlement which people believe that they have over their water resources.

5.3 Water: Securely Unpredictable and Investment: Predictably Insecure?

What the preceding summary of the framework for analysis that has been detailed in this work is that the combination of water governance and investment protection is an area of legal integration that will require intense sensitivity and diligence in the coming years. The first statement above (water as securely unpredictable) reflects the idea that the unique nature and characteristics of water resources and increased hydrological variability and climate change mean that there is little predictability in the future distribution of water resources. A holistic or integrated approach to water management (which may be referred to as an emerging principle of water law, lacking the status of hard law internationally) may be a useful approach for governing

¹² See for instance *AbitibiBowater Inc., v Government of Canada*, where the government of Canada agreed to make a payment of USD 130 million to settle the dispute. In this regard see the press release by the Government Canada, available at <http://www.italaw.com/sites/default/files/case-documents/ita0235.pdf>, last visited August 1, 2013. In the case *Sun Belt v Her Majesty the Queen (Government of Canada)*, (NAFTA Chapter 11, under UNCITRAL Rules), the settlement arrangement remains unknown. In *Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany*, (ICSID Case No. ARB/09/6), the government of Germany reverted its measure, see Section 2.5.2.2.

water's unpredictability, but from a positivistic perspective provides little assistance for host States having to defend claims dealing with changes in the regulation of its water resources. This increases the likelihood, at least in the short-term, that host States will have to be especially careful in changing water regulations that may conflict with promises that have been made to foreign investors. However, it is also increasingly important that foreign investors undertake not only environmental impact assessments, but also social and human rights impact assessments. Past experience in the area of water services has shown that people feel entitled to water resources and sensitivities may escalate to the point where conflicts become unavoidable. A nuanced understanding about the unpredictability of water resources may assist investors in structuring investments that can survive changes in a host States' water regulation. This will of course require that the costs of due diligence as well as the risk of asymmetric information are shared by both, investors and host states. Expectations given to investors would only be considered reasonable when host States provide investors with transparent legal regimes that create a reasonably predictable investment environment.

As for the second statement (investment as predictably insecure), the unpredictable nature of water constitutes a prediction of its variability and changing conditions. Therefore, one could argue that water users (*i.e.* foreign investors) – in conditions of water stress and scarcity – operate in an environment of predictable insecurity given by the nature of water resources, on one hand, but also given by the nature of the investor-State dispute settlement mechanism.

It is perhaps appropriate to note that security and predictability are not the ultimate objectives of the investor-State dispute settlement mechanism. With over 3000 IIAs, which constitute the primary applicable law to the dispute, and 514 known disputes that either are concluded,¹³ pending or discontinued under different IIAs actors of the dispute settlement mechanism are still debating whether there should be a case-by-case fact inquiry to decide the disputes or whether an all-encompassing legal framework promoting a general jurisprudence *constante* should be developed. This is perhaps an opportunity that got lost during the negotiations of the Multilateral Agreement on

¹³ (UNCTAD), "World Investment Report 2013. Global Value Chains: Investment and Trade for Development", 101, 111-12.

Investment,¹⁴ addressed in Chapter III. Conversely, for instance the Dispute Settlement Understanding under the WTO, provides in Article 3.2 that one of the objectives of the dispute settlement of the WTO is to provide security and predictability to the trading system. Noteworthy is the fact that the WTO agreement includes 159 States under a single multilateral agreement.¹⁵

5.4 The way forward and future research

There are multiple aspects that could still be incorporated in the analytical framework to make it more comprehensive. One important aspect is the issue of compensation, which is beyond the scope of this work.

The issue of compensation ought to be incorporated in a future research agenda. As it stands currently, the Hull Formula of prompt, adequate and effective compensation may hinder the interests of the investor, rather than secure the enforcement of his rights.¹⁶ The all or nothing approach to compensation¹⁷ may not allow for an efficient allocation of risk and costs of regulation between investors and host States. The issue of compensation needs to be addressed in the new negotiations of investment agreements, providing detailed guidelines to arbitrators as to when the costs of the effects of the regulatory measure could be shared among the parties to the dispute. This aspect acquires additional relevance under the analysis of natural resources, as well as environmental and public health, in which the operation of the investor is somewhat involved.

The second issue which ought to be addressed in the light of the analytical framework, proposed in this work, is the fair and equitable treatment standard. This standard has apparently turned into a blank (or catch-all)

¹⁴ On the failure of the MAI negotiation see Chapter III, Section 3.4.2.2. The failure to agree on a MAI has had as an effect, the negotiation of numerous BITs each under different conditions and provisions.

¹⁵ See membership of the WTO in Understanding the WTO: The Organization Members and Observers. Available at:

http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm, last visited August 12, 2013.

¹⁶ The investment agreements' provisions on compensation bind arbitrators to decide on full compensation, due to the existence of an expropriation or zero compensation due to the inexistence of an expropriation –direct or indirect – in such case the burden of risk is fully imposed on either the investor or the host State. Therefore, under this scenario the core inquiry is whether an expropriation took place or not, and it is the question this thesis attempts to answer.

¹⁷ On the issue of full compensation and the quest for a more nuanced approach see Ursula Kriebaum, "Regulatory Takings: Balancing the Interests of the Investor and the State" *The Journal of World Investment & Trade* 8, no. 5 (2007).

mechanism for investment protection. Failed claims of expropriation have found alternative redress in the standard of fair and equitable treatment.¹⁸ The question arises as to whether there is a relationship between the standard of fair and equitable treatment and the criterion contained in the qualitative criteria to assess the nature of governmental measure as expropriatory. This thesis submits that such a relationship needs further study in order to determine whether the tribunals' findings in *e.g.* claims of expropriation could and should inform findings in *e.g.* claims of breach of the fair and equitable treatment standard.

5.5 Final Reflections

As with many other dissertations approaching the issue of international investment law and its relationship and interaction with other areas of law (such as environmental law or human rights law), this dissertation aims at striking a balance between investor rights and State regulatory prerogatives. However, during the course of researching this work, the question has arisen as to whether there really is an imbalance that is in need of correction. This work submits that the protection of other societal values in the context of international investment disputes – as expressed in previous chapters – is not necessarily in danger. While there is considerable criticism in some circles claiming that investor-State dispute settlement is slanted or biased in favour of investors, there is no conclusive evidence that such is the case.¹⁹ In fact, most of the empirical data indicates that investors win less than half of the time, and that when they do win, they receive much less than the amount that

¹⁸ On this issue see for instance: Reed and Bray, "Fair and Equitable Treatment: Fairly and Equitably Applied in Lieu of Unlawful Indirect Expropriation?". Of interest, is also the remark made by the tribunal in *GAMI v Mexico*, during its analysis of the claim of expropriation. In this case the tribunal addressed the analysis of expropriation made by the tribunal in *S.D. Myers v Canada*, pointing out that while the measure adopted by Canada would not be expropriatory, in view that tribunal, redress was granted on different grounds, in this case under the fair and equitable treatment standard. See *GAMI Investments v. Mexico*, under UNCITRAL Rules, Final Award, 15 November 2004, para. 124.

¹⁹ See for instance Pia Eberhardt and Cecilia Olivet, *Profiting from injustice - How law firms, arbitrators and financiers are fuelling an investment arbitration boom* (Published by Corporate Europe Observatory and the Transnational Institute, 2012). See also the *Public Statement on the International Investment Regime 31 August 2010*, proposed by several academics among which are Gus Van Harten, David Schneiderman, Muthucumaraswamy Sornarajah and Peter Muchlinski. Available at: <http://www.osgoode.yorku.ca/public-statement/documents/Public%20Statement%20%28June%202011%29.pdf>, last visited 10 October, 2013.

they were claiming.²⁰ There are, of course exceptions. In some cases, the amount of money awarded to investors is staggering. For example, in *Occidental v. Ecuador*, the arbitral tribunal awarded the claimant 1.77 billion USD in damages for expropriation of an oil operation in Ecuador.²¹ There are also a number of arbitral awards in excess of 400 million USD.²² These facts perhaps explain why a large number of disputes, notably in the context of water resources, settle long before a tribunal is able to issue a final award on the merit.²³ This could mean at least two things: i) investors and host States do not have complete trust and faith in the way that arbitral tribunals interpret and apply investment treaties, and ii) host States might retrospectively realize that the regulatory measures that they have instituted may not be as justifiable as they initially believed them to be, and therefore choose to repeal the measure instead of being found liable for damages by an international tribunal.²⁴ It is also interesting to note that several settled cases involved developed countries as defendants, rather than developing countries, as might be intuitively expected.²⁵ This work has not encountered significant evidence showing cases where arbitrators would have found environmental measures to be in violation of the investment treaty. It is rather the threat thereof that has alerted other areas of law to speculate on potential cases whose decision by investment tribunals might bring negative consequences for environmental regulation or overwhelmingly high amounts of money for compensation. In this vein Judge Brower asserts:

No investment tribunal has ever ordered a State to compensate an investor for simply enacting a generally applicable environmental law or for legitimately enforcing a

²⁰ For instance Susan Franck asserts that up to 2007 there were more arbitral awards in favour of host States. See Franck, "Empirically Evaluating Claims About Investment Treaty Arbitration", 49. See Chapter I, *supra* note 26. Likewise in 2013 UNCTAD reported that up to 2012 from a universe of 244 investment disputes, 42 per cent were decided in favour of the State, 31 per cent in favour of the investor and 27 per cent were settled. (UNCTAD), "World Investment Report 2013. Global Value Chains: Investment and Trade for Development", 111.

²¹ (UNCTAD), "World Investment Report 2013. Global Value Chains: Investment and Trade for Development", 111.

²² The Economist, Foreign Investment Disputes, 'Come and get me – Argentina is Putting International Arbitration to the test', February 18 2012. Available at: <http://www.economist.com/node/21547836>, last visited March 13, 2013.

²³ See *supra* note 11 in this chapter.

²⁴ See for instance the cases of *Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG v Federal Republic of Germany*, (ICSID Case No. ARB/09/6), and *AbitibiBowater Inc., v. Government of Canada, Notice of Intent to Submit a Claim to Arbitration under Chapter II NAFTA*, 23 April 2009. Note also that in both cases the regulatory measures were adopted by developed countries (Germany and Canada).

²⁵ See *supra* note 11 in this chapter.

regulation that caused an investor a loss. Very deferential standards have been applied to environmental regulatory measures.²⁶

The question then arises as to what would be the relevance of this project from a legal perspective, if the problem seems more hypothetical than real. What is the practical achievement of this work? To answer this question, I must wear two hats: one as a water lawyer and one as an international investment lawyer. Ultimately, the approach that I take in analysing these distinct areas of international law is underpinned by the broader outlook of values and preferences that water lawyers and investment lawyers embrace. While an investment lawyer wants to protect investments and profits, the water lawyer seeks the protection of the environment. It is certainly easy to see how these divergent objectives could be in direct conflict. Both sides have strong opinions in terms of the prioritization of protections that the law should endorse; and it is from within this debate that the idea for this thesis comes. I was originally inspired and informed by strong opinions about the negative effects that investment agreements and investment dispute settlement could have on States' prerogative to regulate (especially in the area of water resources). However, in the end, rational thought has overcome emotion, and I find that my original feelings and fears about investment law may have been overstated.

Confessions aside, a sectoral approach to the protection of water resources in the context of investment treaty protection is still relevant and useful for international law. A sector specific approach to investment disputes will indeed provide decision-makers with a detailed and outlook on the specific regulatory measure at issue and the rationale behind it. Looking at water resources specifically allows the decision-maker to identify and properly assess the specific challenges and historic development of property law relating to water resources that shape the function and object of many water regulations. This in turn will allow the decision-maker (the arbitrator) to more accurately construct the actual property rights that the investor does or does not have in regard to its water entitlements as viewed through the relevant legal system of the host State. One of the main concerns, after observation of the mainstream methodology followed by arbitrators in many cases, was that measures over water resources would almost always have a substantial negative effect over the investment (as discussed in the context of the unique

²⁶ Charles N. Brower and Sadie Blanchard, "From "Dealing in Virtue" to "Profiting from Injustice": The Case Against Re-Statification of Investment Dispute Settlement - 2013 Harvard International Law Journal Symposium Keynote Address" *TDM Journal* 10, no. 4 (2013): 5.

nature of water). Under such an assumption host States would bear difficulties in defending water-related measures. The analytical framework proposed in Chapter IV intends to overcome this legal hurdle, but also encourages host States to be very specific in their pleadings. One of the outcomes of this work is in the realization that if arbitrators are to employ the analytical tools that the thesis suggests, it is of equal import for host States to be very diligent in informing arbitrators of the specificities of their national laws in regard water resources, and object and purpose of the water-related measures. As a matter of principle, States do not want to be seen as having insecure and unpredictable investment environments; yet, from a practical perspective, States do want to avoid the payment of high compensation. In both cases, host State are required to act with great transparency and avoid confusing or conflicting internal process, as was the case in *Metalclad v Mexico*.²⁷

Finally, it is important to reflect that this thesis is not a State-centric or pro-sovereignty piece of work. Instead, this work holds that the police power of states is both an extension and a limitation on sovereignty. The police power of the State grants a sovereign a wide discretion to implement measures that benefit the public welfare; but at the same time, that same sovereignty allows states to enter into binding international agreements that limit their own sovereign prerogative. In other words, the police power (as an important component of state sovereignty) is not absolute. This means that the State, as sovereign, can limit its sovereignty by providing international guarantees to foreign investors in the form of treaties. It also means that the state, as sovereign, can use its police power to implement measures that benefit the public interest. It is at the nexus of these two essential components of a state's sovereignty where this thesis has attempted to add insight and analysis. Therefore, when one refers to the police power approach, in the context of resolving disputes involving investor and host State, one may be failing to understand that the police power of the state is not absolute; it must be

²⁷ In this case the tribunal asserted the importance of clarity and transparency to guide the actions of investors in the best possible way. 'Once the authorities of the central government of any Party (whose international responsibility in such matters has been identified in the preceding section) become aware of any scope for misunderstanding or confusion in this connection, it is their duty to ensure that the correct position is promptly determined and clearly stated so that investors can proceed with all appropriate expedition in the confident belief that they are acting in accordance with all relevant laws.

See *Metalclad Corporation v. United States of Mexico*, ICSID Case No. ARB(AF)/97/1, Award, (Aug. 30, 2000), para. 76.

balanced against all of the other commitments that the state has made to itself (i.e. constitutional guarantees) and others (i.e. international commitments). Simply invoking the police power as a defence to state responsibility is as unsophisticated as it is wrong. If such a view were correct, then any measure that a state invoked under the police power would be valid – and that clearly is not the case. This is something that appears to be generally recognised by investment arbitral tribunals: the state, through the use of its police power, can make promises to both foreigners and its own citizens; and sometimes a state is going to be held liable for renegeing on such promises. This work attempted to assist the decision-maker in finding the appropriate balance between the duties that a state owes to its own citizens and the duties that it owes to foreign citizens through its international commitments. Obviously this is not something that is simple to delineate, but I hope that this contribution will move knowledge in this area of legal interpretation and analysis forward.

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